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A) Projektdaten

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B) Projektübersicht

1 Kurzfassung

Das CCA-Projekt zielte darauf ab

- Eine Bestandsaufnahme umfassender Klimaschutzgesetze (CCAs) in EU-Ländern durchzuführen um deren wesentliche Merkmale zu analysieren (Arbeitspaket / WP2);
- Ausgewählte Klimaschutzgesetze in den Ländern Österreich, Dänemark, Schweden und Schottland in Fallstudien eingehend analysieren, um deren Stärken und Schwächen besser zu verstehen (WP3).
- Vergleich der vier Fallstudien, um herauszufinden, unter welchen Bedingungen CCAs Klimapolitik tatsächlich ändern können (WP4).
- Lehren aus den bislang mit Klimaschutzgesetzen gemachten Erfahrungen ziehen um Inputs für eine Verbesserung des vergleichsweise schwachen Gesetzes in Österreich aus dem Jahr 2011 zu geben (WP4).

Die Bestandsaufnahme und die vier Fallstudien zu Klimaschutzgesetzen haben Folgendes gezeigt:

- Starke Klimaschutzgesetzte (wie jenes in Großbritannien aus dem Jahr 2008 und jenes in Dänemark aus dem Jahr 2020) scheinen nur möglich zu sein, wenn das Thema auf großes öffentliches Interesse stößt und somit auf der politischen Agenda weit oben steht. Ohne diese Voraussetzungen neigen auch Klimaschutzgesetze zu symbolischer Politik.
- Klimaschutzgesetze stellen Fortschritte in der staatlichen Koordination von Klimapolitik dar. Diese wurde bislang durch deutlich unverbindlichere und weitgehend wirkungslose Klimaschutzstrategien mit wenig Erfolg betrieben.
- Dennoch reichen Klimaschutzgesetze in der heutigen Form sehr wahrscheinlich noch nicht aus, um bis 2050 eine Dekarbonisierung zu erreichen.
- Dafür werden weitere politische Innovationen erforderlich sein. So sollten Klimaschutzgesetze z.B. verbindliche Emissionsminderungsziele für verschiedene Zeithorizonte (kurz-, mittel- und langfristig) definieren und entsprechende Umsetzungsmechanismen für die gesamte Regierung vorsehen.
- Eine wesentliche Schwäche aller CCAs ist das Fehlen von Sanktionsmechanismen. Es ist in keinem der Länder klar, was im Fall von verfehlten Zielen passieren wird. Das lässt zu große Spielräume in der Erreichung der Ziele offen.
- Klimaschutzgesetze, die unter Beteiligung der Öffentlichkeit transparent formuliert wurden, sind inhaltlich in der Regel anspruchsvoller als jene, die vom Gesetzgeber ohne nennenswerte Konsultationsverfahren verabschiedet wurden.

Unsere wichtigsten Empfehlungen für wirksame Klimaschutzgesetze lauten wie folgt:

- Da öffentliches Interesse am Thema Klimaschutz eine wichtige Voraussetzung für starke Klimaschutzgesetze darstellt, sollten Regierungen stets bemüht sein, Bewusstsein und Akzeptanz für das Thema zu schaffen.
- Klimaschutzgesetze sollten verbindliche langfristige Ziele mit verbindlichen kurz- und mittelfristigen Zielen kombinieren, um einen Pfad in Richtung Dekarbonisierung zu gewährleisten.
- Auch sektorale Ziele sollten in Klimaschutzgesetzen verankert werden, um so eine klare ministerielle Verantwortung zu gewährleisten.
- Sowohl allgemeine als auch sektorale Ziele sollten mit einem Planungsprozess wie einem Emissionsbudget verknüpft werden. Dieser kann die Wahrscheinlichkeit erhöhen, dass Regierungen die Umsetzung auch auf Dauer nicht aus den Augen verlieren.
- Für den Fall, dass Regierungen ihre selbst gesteckten Ziele nicht erreichen, sollten Klimaschutzgesetze einen Sanktionsmechanismus vorsehen. Solange verfehlte Ziele nicht sanktioniert werden, ist das vergleichbar mit Geschwindigkeitsbegrenzungen und Radarmessungen ohne Strafen.

2 Executive Summary

The CCA project aimed to

- Take stock of comprehensive climate change acts (CCAs) in OECD countries and understand why and how they have been diffused from one country to another (Work Package/WP2);
- Analyse selected cases on Austria, Denmark, Sweden and Scotland in depth to better understand how CCAs aim to facilitate climate change mitigation across sectors, and their potential in doing so (WP3);
- Compare the four case studies to find out under which conditions CCAs are able to change policy-making (WP4);
- Draw policy-relevant lessons from good practices and failures, e.g. with regard to improving the Austrian CCA adopted in 2011 (WP4).

The stocktaking and the four case studies on CCAs have shown the following:

- Strong CCAs seem to require that climate protection is a top priority in both public discourses and on policy agendas. When these prerequisites are missing, climate protection laws have a strong symbolic character.
- CCAs represent progress in comprehensive climate policymaking, in particular when compared to national mitigation strategies (NMS).
- However, as they stand today they are most likely still inadequate to deliver decarbonisation until 2050.
- To achieve this goal, more policy innovations will be needed to further improve both the frequency of emission reduction targets and the extent to which they are binding for the entire government and its parts.

- A key weakness of all CCAs is that sanctioning mechanisms are lacking. Consequently, it is not clear what will happen if even formally binding targets are not met.
- In the policy formulation process, we find a correlation between more deliberative legislative processes towards CCAs and setting ambitious, legally binding, quantified goals for GHG emissions, that enjoy cross-party support.

Our main recommendations on how to make CCAs work:

- CCAs should combine binding long-term targets with binding short and medium-term targets to guide climate policymaking continuously towards decarbonization.
- Including sectoral targets in CCAs is also worth exploring further in different contexts, especially as the low-hanging fruit of relatively easy emissions reductions are achieved and more difficult measures need to be made to achieve further reductions.
- Overarching as well as sectoral targets should be linked to a planning process such as the carbon budgets system that ensures that governments are actively planning for how these targets are going to be met.
- If governments fail to reach targets, CCAs should specify some kind of sanctioning mechanism. If failing targets is not sanctioned it is a bit like having speed limits and radar controls without penalties.

3 Hintergrund und Zielsetzung

Although governments realised the cross-cutting and multi-level challenges of climate change mitigation decades ago, it is a continuing struggle. Since the early 2000s, the standard approach to facilitating the coordination of climate policy-making across sectors (and levels of government) have been comprehensive, multi-sectoral national mitigation strategies (NMS). However, an obvious failure of mitigation strategies to actually curb GHG emissions triggered a policy innovation that is at the focal point of this project: climate change acts (CCAs). Similar to mitigation strategies, most of these acts also set emission reduction goals (overall, sectoral, and/or for certain time periods), and establish governance procedures that are supposed to facilitate the implementation and/or monitoring of the act.

The best-known CCA is the UK Climate Change Act from 2008. It is best-known because it was the first comprehensive CCA with a demanding governance and implementation scheme. Since 2008, in Europe CCAs have followed in Austria (2011), Iceland (2012), Denmark (2014, Finland (2015), Ireland (2015), Sweden (2017) and Norway (2017). These CCAs have different histories and qualities, but they all have a common aim to facilitate climate change mitigation (and some of them also adaptation) across all relevant sectors within a government in the short- and medium-term to meet long-term emission reduction goals.

Since most of the CCAs are relatively new they have not been analysed, let alone compared systematically. Consequently, we know very little about how many national and sub-national CCAs have been adopted in recent years, why and how they have diffused from one country to another, what policy responses they prescribe, what kind of follow-up governance they foresee, and how relevant they are for mitigating climate change across sectors.

The objectives of the CCA project can be summarized as follows:

- Take stock of all comprehensive, multi-sectoral climate change acts (national/federal and sub-national) in Europe and understand why and how they have been diffused from one country to another (Work Package/WP2);
- Analyse selected cases in depth to better understand how CCAs aim to facilitate climate change mitigation across sectors, and also their potential in doing so (WP3);
- Compare the case studies to find out under which conditions CCAs are able to change sectoral policy-making (WP4);
- Draw and communicate policy-relevant lessons from good practices and failures, e.g. with regard to improving the Austrian CCA (WPs 4).
- To accomplish these four aims we have developed a theory-based analytical frame that has guided the research related to the aims outlined above (WP1).

4 Projektinhalt und Ergebnis(se)

The following sub-sections summarize key findings of the CCA project on a work package basis. They summarise key findings that have been documented in more detail in the main deliverables of the CCA project.

WP1: Analytical Framework

The policy innovation literature is used to structure this project, whereby we draw on a holistic approach to policy innovation. Following Jordan and Huitema we systematically speak to three strands of the policy innovation literature: invention, diffusion, and evaluation (Jordan and Huitema 2014, Jordan and Huitema 2014). The *invention* literature addresses policy innovations that appear to be new (to the world, rather than to a particular constituency) and often examines the work of policy entrepreneurs and first-mover states. The *diffusion* literature is concerned with policy that is new to a particular constituency and examines how processes of diffusion (including the adaptation of policy initiatives to the new context) take place. Finally, the *evaluation* literature is concerned with carrying out *ex post* analyses of policy innovations, examining emerging impacts (Jordan and Huitema 2014: 717). This is an analytical distinction, with many contributions to the literature actually speaking to more than one of these literatures. As a result, there will also be some overlap in how we address these literatures.

Stage one (the stocktaking exercise) will systematically collect data relevant to both invention and diffusion, as elements of different CCAs will be documented, making it possible to see what elements are inventions (new to the world) and which other elements are present in multiple CCAs. Stage two (four individual case studies) speaks to all three literatures. In charting the emergence of the respective CCAs, it will be possible to interrogate what elements have diffused from other CCAs and where inventions of new elements have occurred and what adaptations have been made to make the CCA work for the different constituency. However, this stage also moves on to evaluating the progress of the respective CCAs so far by turning to implementation, policy successes and failures,

and the relevance of the CCA for facilitating mitigation policies. Stage three of the project (comparison of the case studies) is concentrated on the final two strands of the literature. The similarities and differences between the CCAs will be analysed. This leads on to an analysis of what factors diffuse particularly well and what policy adaptations are most common as well as an analysis of what factors determine the success of a CCA in terms of facilitating climate change mitigation. These final points speak to the diffusion and evaluation literatures respectively.

WP2: Survey of CCAs

Nash, S.L. & Steurer, R. (2019) Taking stock of Climate Change Acts in Europe: living policy processes or symbolic gestures?, in: Climate Policy, 19/8, 1052-1065.

Since the UK introduced a Climate Change Act (CCA) in 2008, similar legislation has followed in a number of states, with each having a slightly different take. What unites these policy innovations is that they all represent framework legislation that aims to facilitate climate change mitigation by creating continuous policy processes whereby mechanisms for the reduction of greenhouse gas (GHG) emissions are developed and implemented. This article is concerned with the extent to which they are living policy processes or rather symbolic gestures. We analyse seven European CCAs with regard to GHG emission reduction targets, planning/implementation mechanisms, and feedback/evaluations prescribed by the laws. These three features correspond with three aspects of climate policy integration (CPI): interpretations of CPI as a norm; CPI as a process of governing; CPI as a policy outcome. We show that CCAs address all three aspects of CPI and constitute living policy processes, although to varying extents. However, CCAs are also policy processes in that they are part of a political system and can be affected by political forces external to the legislation, positively and negatively.

The central question of this article is: to what extent are CCAs symbolic gestures or policy-relevant processes? We have set this discussion against the background of failing NMS that have resembled “bookkeeping rather than climate policy making” (Casado-Asensio and Steurer, 2016).

CCAs have a number of similarities with their NMS forerunners, with CCAs arguably building on the rationale of NMS that CPI (or cross-sectoral framing of policy making) is necessary in order to guide GHG emission reductions. As NMS have done, CCAs provide a normative basis for climate policymaking, mainly by stating quantitative emission reduction targets as an ordering principle. As with NMS, CCAs also facilitate coordination processes across sectors, with the planning processes initiated in CCAs requiring input from, and having consequences for, the functioning of different ministries/departments. Finally, the bookkeeping element that came out particularly strongly in NMS also features in all CCAs analysed here: they all institutionalise monitoring of, and reporting on progress made.

Despite strong similarities with NMS, CCAs go beyond these precursors in a number of important ways. Firstly, as pieces of legislation that have been passed through parliaments (rather than NMS adopted by governments), CCAs are more difficult to ignore, weaken, or

abolish, with legislation 'typically harder to reverse than climate strategies or policies across successive governments' (Iacobuta, Dubash, Upadhyaya, Deribe, & Höhne, 2018: 1120). Whilst strategies may simply expire with a change in government unless actively adopted by their successor, CCAs require active legislative processes to amend or remove them. An example is provided by the case of Denmark where, following the 2015 election, the 40% target for emission reductions until 2020 contained in a government policy document was not adopted by the incoming government. However, the elements included in the CCA (the establishment of a Climate Council and government reporting obligations) have continued. Whilst weakening or removing a CCA is not impossible, it is more laborious and likely to attract attention because of the parliamentary processes this would require. Secondly, due to their legal rather than administrative character, CCAs can become a stronger link between international obligations and national policymaking than NMS ever were. CCAs can assume an important role in the multi-level, polycentric system of climate governance that exists globally nowadays (Jordan et al., 2015). However, different CCAs fit differently within this system. While the CCA of the UK is a forerunner in the sense that its commitment to decarbonisation surpassed international and EU obligations when adopted (Knaggård and Pihl, 2015: 214), all others translate international and EU commitments into national law without going beyond them (sometimes even only partially). Thirdly, CCAs further institutionalise climate change policymaking with the establishment of dedicated institutions, and cycles of mandatory reviews and reports that are as difficult to abolish as the law itself. These procedural aspects represent regular impulses that make it more difficult to take climate change off the political agenda.

These strengths of CCAs that take them beyond NMS are also tempered with three important limitations. Firstly, in some cases there is a disparity between the alignment of targets on the one hand, and planning, reporting and evaluation mechanisms on the other. The majority of CCAs analysed here do not include short or medium-term targets, looking purely towards 2050 (Denmark, Finland, Ireland) or 2045 (Sweden). However, at the same time annual reporting and/or evaluation mechanisms require short-term progress updates against this long-term target. Since CCAs aim to ensure a constant decline of GHG emissions towards decarbonisation, interim targets are needed to guide this process from one year to another. At the other end of the scale, the Austrian CCA does not contain any long-term perspective, with targets expiring in 2020. This does not provide any impetus for long-term planning. However, the Austrian CCA is notable for the absence of a planning mechanism altogether. The UK's CCA is the only example that combines short-term and long-term targets with planning on how to achieve them via carbon budgets.

A second limitation is the vulnerability of CCAs to political developments. Although CCAs are legislation that can withstand events such as government changes, they are not immune to changing political priorities. This point can be illustrated with the UK, where cross-party consensus on climate change facilitated the agreement of the CCA but dissipated to some extent shortly after a change in government in 2010, with a 'deep partisan hostility to climate policy' developing in the Conservative right (Carter, 2014: 429). Coinciding with another change in government in 2015, a number of policy changes, such as halting the construction of new onshore wind farms and the application of a carbon tax

to renewable energy suppliers' energy consumption, took place (Gillard and Lock, 2017). This suggests that whilst a CCA is superficially being adhered to in procedural terms, climate policymaking is nevertheless a dynamic process that can also go backwards. Despite various bureaucratic procedures foreseen in most CCAs, it would be remiss to view them as technocratic processes divorced from the politics within which they are embedded.

The most important limitation is that sanction mechanisms are lacking across all the CCAs analysed here. Thus, it is not clear what will happen if formally binding targets are not met. The significance of this limitation all CCAs have in common becomes apparent when we imagine road traffic acts without sanctions. Anarchy on the roads would be the probable outcome. Likewise, it is hard to imagine how CCAs without sanctions can deliver decarbonisation, in particular when cutting emissions becomes increasingly difficult.

While our analysis shows that CCAs are more binding on governments than NMS (Gillard and Lock, 2017), it also suggests that there is still room for improvement. The following options are derived from policy innovations we found not in a single but scattered across a variety of countries (except the point on sanctions). Firstly, every CCA should combine long-term targets with binding short and medium-term targets to guide climate policymaking continuously towards decarbonisation. Secondly, the sectoral targets included in the Austrian CCA are also worth exploring further as a key tool of CPI, especially as the low-hanging fruits of emissions reductions have been harvested and more difficult measures need to be taken. Thirdly, targets should be supported by planning processes such as the carbon budgets system of the UK's CCA, which ensures that government is actively planning for how targets are going to be met. Fourthly, linking CCA procedures with the budgeting process (as is the case in both Sweden and Norway) is another promising option to facilitate CPI. Finally, since we did not find a sanctioning mechanism, we can only hypothesise that a combination of sector-specific emission reduction targets and sector-specific sanctions for missing them would be a major step forward because it would give each sector not only a legal obligation but also a fiscal incentive for taking decarbonisation seriously. Having the legal obligation for emission reductions accompanied by monitoring/reporting mechanisms but without sanctions is a bit like having speed limits and radar controls without penalties.

Overall, we conclude that achieving decarbonisation is not only a question of technological progress but in particular one of policy innovations that have to deliver dramatic emission reductions across governments and throughout society. The Paris Agreement has set the global warming limit to 1.5-2°C. CCAs represent a much-needed policy innovation that can contribute to this goal, but with the limitations highlighted above they are unlikely to actually deliver decarbonisation. Yet, we also highlighted promising ways to improve them. Future research should analyse CCAs, limitations and options to address them in more depth (e.g. through qualitative case studies) so that we better understand legal framework conditions that have the potential to realise decarbonisation.

WP3: Case studies on Austria, Denmark, Sweden and Scotland

Nash, S.L. & Steurer, R. (2020) The Austrian Climate Change Act: A Symbolic Frontrunner Lagging Behind in Content (to be submitted soon).

Since the Paris Agreement put nation states in a central role for climate mitigation through the mechanism of Nationally Determined Contributions (NDCs) there has been increasing interests in the policy frameworks that are being developed by nation states to contribution to lowering greenhouse gas (GHG) emissions. One of the ways in which a growing group of nation states is trying to facilitate the reduction of emissions is with Climate Change Acts, framework legislation that sets out a bureaucratic structure for working to lower emissions.

CCAs have not only emerged in the jurisdictions of climate leaders. Austria provides an example of a consistent laggard in the implementation of climate change policy that has also passed a CCA. The targets to which Austria was bound under the Kyoto Protocol were missed and had to be compensated by purchasing emissions certificates and Austria may also miss its EU mandated targets for GHG emissions reduction for 2020 (BMNT, 2018). In contrast, through the introduction of a CCA, Austria has taken on a symbolic frontrunner position. The Austrian CCA therefore provides a compelling case of a CCA emerging in an unlikely place; a nation state that is positioned as a laggard with low climate ambitions both internally and externally (on conceptualisation of the term laggard see Liefferink and Wurzel, 2017). It also raises question as to whether the implementation of a CCA has been able to manoeuvre Austria away from this laggard status in any more than symbolic terms. Therefore, to explore both the background of the Austrian legislation and its implementation, this paper answers the following three research questions: 1) How did the Austrian CCA emerge?; 2) How is the Austrian CCA being implemented and what policy successes and failures have there been?; 3) How relevant has the CCA been for facilitating mitigation policies across sectors in Austria?

The Austrian CCA has been (rightly) criticised from many quarters; the Green Party did not vote in favour of it when it was passing through parliament, and environmental organisations have been keen to point out its failings such as not containing long-term targets, omitting whether Austria will rely on implementation of domestic measures, and not addressing how and by who targets should be implemented (Global 2000, 2011: 9). This is in line with previous climate policies in Austria. The national mitigation strategies that preceded the CCA were also largely symbolic and concentrated on bookkeeping rather than policy making (Casado-Asensio and Steurer, 2016). The CCA sets forth this trend; although with the passing of the CCA in 2011 Austria symbolically became a frontrunner in climate policy by being one of the first legislature and the second EU Member State to pass such a law, the content of the law maintains Austria's position as a laggard in climate policy. Elements that were included in the UK's CCA of 2008 and have been included in various CCAs that have since followed, such as a long-term perspective, ambitious targets for GHG emissions reductions, independent advisory institutions, concrete planning procedures with automatisms built in to respond to any failures to meet

interim targets are not built into the Austrian legislation (Nash and Steurer, 2019). As such, the CCA is a very weak instrument for influencing the development of climate policy.

A number of factors have played into the weakness of the CCA. Particularly worth mentioning are, first, the complicated dynamics between the federal states and the Bundesläder with regard to taking on responsibility for climate change mitigation and, second, the influence of the social partners throughout the process towards a CCA and indeed in the implementation of the law since it passed. While it is not clear whether a stronger CCA would have been developed in the absence of these dynamics, both the federal structure and strong corporatist influence contributed to limiting the possibilities for what could be included in the Austrian CCA.

The many weaknesses of the CCA mean that the legislation has only partially contributed to CPI since its inception. In normative terms, the CCA sets a target for reducing GHG emissions for 2020, which can be interpreted as a normative ordering principle. However neither the CCA nor domestic Austrian politics in general has ownership of this target, which originates from the EU's effort sharing directive (Official Journal of the European Union, 2009) and is translated into Austrian law by the CCA. Furthermore, the CCA does not provide clear normative direction for Austrian climate policy in the long-term due to its temporal horizon of 2020. Finally, the CCA itself does not assume success in achieving the normative target, dedicating space to planning for failure, with six years of negotiations following the passing of the legislation being dedicated to negotiating between the federal state and the Bundesländer who should be financially responsible if targets are not met.

Procedurally, the CCA does take the first step towards integrating climate migration across sectors by including annual sectoral targets for GHG emissions reductions rather than simply a more general target for all sectors combined. However, beyond this no planning mechanism is in place to ensure CPI. One of the impacts of this was a continued negotiation character of the CCA after it had passed, with working groups not only negotiating financial responsibilities in the case of failure but also measures that could be put in place to implement the legislation. Both the steering committee and the advisory board established in the CCA have also proved to be weak and heavily influenced by the stakeholders that are members, including the social partners, political parties, and Bundesländer.

Outputs can also be identified, particularly in the form of the programmes of measures that have followed the CCA and use it as a scale against which to determine how far-reaching the programme of measures must be in order to meet the 2020 target. However, in the programme of measures for 2015-2018 (Ministerium für ein Lebenswertes Österreich, 2015) not enough measures are included to meet the target and recent reports show that additional measures will be required (BMNT, 2018). This is a common refrain, summarised by one interview partner as follows: 'the most popular measure is always the additional measure' (Interview 5). Turning to the outcome of changes in GHG emissions, the picture is equally bleak, with emissions having risen in recent years and targets for annual permissible levels of emissions being missed in some sectors (BMNT, 2018). If the 2020 target is to be reached then it will likely only be with the assistance of over-achievement in previous years, which can be counted towards later targets.

Looking ahead, the future for Austrian climate policy is not particularly optimistic. The questions marks that exist as to whether Austria will meet its 2020 target suggest that the target has been difficult for Austria to achieve. Despite this, Austria's 2020 target has actually been described as 'very meagre' (Interview 4) due to the baseline year for emissions of 2005 also being 'the highest point in Austria's emissions history' (Interview 4), making the resulting emissions reduction target for Austria relatively small. This target that should have been relatively easy to achieve has already been touch and go and with tougher targets coming from the EU for the period 2020-2030, Austria will likely once again struggle to fulfil them if a new approach is not taken.

One approach that could support the achievement of GHG emissions reductions in Austria would be the overhaul of the CCA to provide a stronger framework to support climate policy. We propose five separate elements that could be amended to strengthen the Austrian CCA. First, normatively the CCA could be strengthened by introducing a long-term perspective with a target for 2050 accompanied by interim targets to guide the emissions reduction trajectory to this point. The targets set in the law also do not necessarily need to be analogous to the targets put forward in EU directives but could go beyond them to develop a domestic level of higher ambition. Second, a more robust planning framework could be included in the law that requires mitigation plans to be published by the government at particular times and include automatisms that trigger further planning obligations if interim targets are not met. Third, planning could also be strengthened by including provisions in the CCA that oblige the government to publish mitigation plans that, at least on paper, contain a sufficient amount of measures that, were they to be implemented correctly, the targets for GHG emission reductions can be reached. This would create leverage to challenge the government at an earlier stage on insufficient programmes of measures. Fourth, another procedural improvement to the CCA could be an overhaul of the national climate protection committee. Austria could choose to follow in the footsteps of other EU Member States such as the UK, Denmark, Finland and Sweden by creating an independent advisory committee to advise the government on how to achieve the targets set out in the law, with this advice also being made publically available. However, if this is not possible in the Austrian context where expert advisory bodies are not common place, a step in the right direction might be an increase in the transparency of the existing committee via the publication of agendas and reports of meetings. Finally, it could be worth considering whether sanctions could be incorporated into the law so that sectors that are not adequately contributing to GHG emissions reductions are more incentivised to do so.

Nash, S.L. & Steurer, R. (2020) From Symbolism to Substance: What the renewal of the Danish Climate Change Act tells us about the driving forces behind policy change (submitted to Environmental Politics).

In 2014, Denmark became the third European Union (EU) Member State to pass a Climate Change Act (CCA), with its "Act on the Climate Council, climate policy statements and determination of national climate objectives", which entered into force on 1st January 2015. By passing this law, Denmark followed in the footsteps of both the United Kingdom (UK) and Austria, which passed their own laws in 2008 and 2011 respectively.

As the third EU Member State to introduce a CCA, Denmark is an early-adopter of this kind of legislation. In 2019, the main political parties in Denmark also agreed the main aspects of a new stronger CCA to be passed in early 2020. Denmark is therefore an unusual case as both an early adopter of a CCA and a legislature that is in the process of legislating for a new, stronger CCA five years on from its first CCA entering into force.

With such a broad political agreement behind it, it is very likely that the new Danish CCA that is planned for early 2020 will broadly resemble the 2019 cross-party agreement and not face many challenges in the legislative process. The 2020 CCA will therefore represent a significant strengthening of Danish framework legislation on climate change, with both quantitatively higher targets and more stringent procedures at its core. In contrast to the 2014 CCA, which is pre-Paris Agreement legislation, the new CCA will also be able to draw on the context that the Paris Agreement provides, in particular the headline objective of limiting global warming to 1.5°C. This has provided on the one hand a guiding line for the political discussions surrounding new legislation and on the other hand a concrete global framework (which Denmark has ratified) that new legislation should be compliant with.

Going forward, it will be interesting to follow the process of translating the political agreement from late 2019 into concrete legislation through into its implementation. In particular, it will be interesting to observe whether the future-oriented target setting and planning processes that the new legislation will introduce will lead to increased stability in the implementation of climate policy in Denmark, even when changes of government occur. Finally, a new avenue for research will be the influence that new Danish legislation may have on climate policy beyond Denmark, in both the EU and global arenas. Here, it will be interesting to observe whether the Danish legislation is used as a model for other legislation that is developed or whether the new targets that Denmark has set for GHG emission reductions are used to drive higher ambition elsewhere.

Nash, S.L. (2020) 'Anything Westminster can do we can do better': The Scottish Climate Change Act as world-leading legislation designed to put a sub-state nation on the international stage (submitted to Environmental Politics).

In 2009, Scotland passed, at the time, the world's most ambitious climate change legislation. The Climate Change (Scotland) Act includes a target to reduce greenhouse gas emissions 80% by 2050 and 42% by 2020, as well as a complex system of annual targets, planning and reporting. It was the most complex legislation to pass through the Scottish Parliament since its inception, and a landmark bill of the Scottish National Party's first term in government. This case study analyses the emergence of this Climate Change Act in Scotland and what factors influenced its form, analysing problem, policy, and politics streams according to the Multiple Streams Model (MSM).

In 2009, a number of factors across the streams of problem, policy, and politics came together to create a situation where an ambitious CCA was able to emerge in Scotland. Most prominent were the international ambitions of the SNP (who were a minority government), set against the context of the Copenhagen climate negotiations of the United

Nations Framework Convention on Climate Change (UNFCCC), which were taking place later that year.

Since then, new legislation has increased Scotland's climate ambition further to be in line with the Paris Agreement ("Climate Change (Emissions Reduction Targets) (Scotland) Act 2019,"). Shortly after Scotland's First Minister Nicola Sturgeon 'declaring that there is a climate emergency' (SNP, 2019), the (still SNP) government adopted the target of achieving net-zero emissions by 2045 (The Scottish Parliament, 2019: 1). This is five years ahead of the UK as a whole, which has an amended target of reaching net-zero emissions in 2050 ("The Climate Change Act 2008 (2050 Target Amendment) Order 2019,"). The new Scottish act also increases the 2020 target further to 56%, with interim targets for 2030 and 2040 set at 75% and 90% respectively.

The Scottish CCA, in both its original and amended form, is clearly substantive legislation, establishing a complex bureaucratic process to guide the reduction of GHG emissions and setting clear quantified targets for both the short and long-term. However, it is also highly symbolic. The CCA is a vital component of Scotland's portrayal as a climate leader on the global stage. In being more ambitious than the UK CCA, even if the broad strokes of the legislation are very similar, the CCA can also contribute to the SNP project of setting Scotland apart from the rest of the UK and proving that 'anything Westminster can do, we can do better' (Interview 5). This case study therefore problematizes a simplistic dichotomy between substantive and symbolic legislation, with the symbolic relevance of the CCA playing an essential role during the Scottish legislative process to drive strengthening amendments.

In international comparison the Scottish CCA is in this sense unusual. Other older CCAs in European nation-states do not have the same combination of ambition complexity, and long-term thinking, with the Austrian 2011 CCA the only other to include annual targets, but only until 2020 and devoid of long-term targets ("Klimaschutzgesetz," 2011). Finland's 2015 target to reduce GHG emissions 80% by 2050 is in line with Scotland's pre-Paris legislated target but is not supported by strong interim targets ("Ilmastolaki," 2015). Other CCAs have been more vague, for example Denmark set a 2014 target for a 'low-emissions society' that was not backed up by a legislated planning process ("Klimalov," 2014: 1, author translation) and Ireland limited their 2015 80% target for 2050 to the electricity, built environment and transport sectors ("Climate Action and Low Carbon Development Act," 2015; see also Torney, 2017). Many of these CCAs have as such been identified as 'symbolic gestures' rather than 'policy relevant processes' (Nash & Steurer, 2019: 1060). However, recent legislation has set more stringent frameworks, whilst also emphasising the intention of the legislature to be world-leading in combatting climate change. The 2017 Swedish Climate Policy Framework includes targets of net-zero emissions for 2045 and a 70% reduction by 2030 that compare favourably with the new amended Scottish targets but these targets are part of a parliamentary decision rather than being a core part of the legislation (Sveriges Regering, 2017). In 2020 Denmark's recently elected Social Democrat government reached an agreement on an ambitious new CCA with the vast majority of parties represented in parliament (Klima- Energi- og Forsyningsministeriet, 2019) that has the stated aim of making Denmark a 'climate-neutral society at the latest in

2050' with an interim target of a 70% reduction in GHG emissions by 2030 (compared to 1990 levels) (Klima- Energi- og Forsyningsministeriet, 2020: 1). As in the Scottish case, the symbolic value of the legislation appears to have had a strengthening effect rather than being a negative attribute that indicates lack of content.

Nash, S.L. & Pamperl, L. (2020) A Framework Built on Shared Knowledge: A Cross-Party Committee as Epistemic Community in the Development of Sweden's Climate Policy Framework.

In 2017, the Swedish parliament passed the Climate Policy Framework. The framework was the result of a two-year process by the Cross-Party Committee on Environmental Objectives, which developed recommendations for the framework that were supported by seven out of eight political parties. The process of creating consensus around the proposal for the Climate Policy Framework is rooted in the Swedish corporatist tradition. However, this cannot fully explain the intensive knowledge-building process that the committee undertook as part of its work on the framework. This article uses the concept of epistemic communities to analyse the knowledge-building process of the committee, concluding that a part of the committee became an epistemic community during the process that spanned from 2014 until 2016. This contributed to a more ambitious framework, drowning out other voices that are traditionally influential in corporatist systems. However, it did not rule out disagreement entirely, with points of contention still existing over the inclusion or exclusion of quantitative targets for greenhouse gas emissions reduction in a core legal Climate Change Act and over the level of ambition Sweden's climate targets should be setting.

Having established the presence of an epistemic community embedded within the CPCEO during their work on the CPF, it is important to ask what impact the presence of an epistemic community had on the development of the CPF. This is the question that takes the discussion from a level of purely academic interest, to one that also has policy relevance. After all, framework legislation on climate change is becoming more widespread (Nash & Steurer, 2019) and lessons learned from completed processes of policy change can be used to inform policy processes elsewhere.

Key to the emergence of an epistemic community within the Swedish CPCEO in their work on the CPF was the creation of a shared basis for decision-making, both normatively and in terms of causality and validity of knowledge. This proved to be extremely important in allowing the epistemic community to drown out the voices of the tripartite organisations that are traditionally present in corporatist structures and in the case of the Swedish CPF worked to lower the bar of ambition and weaken the framework. Once criteria such as limiting global warming to 2°C, or positioning Sweden in a global leadership role on GHG emission reductions have been established as core beliefs of a community, it is very difficult to decrease the level of ambition of climate targets below a level that at least have a chance of fulfilling these criteria. In Sweden, ambition was even increased during the work of the committee in comparison to the terms of reference set by the government (which included the Green Party) in 2014. Indeed, the committee recommendations saw the proposal of a target of net-zero emissions for 2045, rather than the planning horizon of 2050 that was included in the terms of reference and had already been established as a

vision for Sweden. The CPCEO also went beyond the goal of limiting global temperature increase to 2°C, aligning itself with the aspiration of the Paris Agreement to ideally limit temperature increase to 1.5°C.

Politicians who were members of the CPCEO were clearly key members of this epistemic community, which accounts for the successful acceptance of the CPCEO's recommendations by parliament without any major changes. However, the right-wing Swedish Democrat Party was not included in the CPCEO and opposed the climate law and targets for GHG emission reductions in parliament. With support for this populist party increasing and ensuring their continued presence in parliament, it important to consider the potential impacts of their absence from the consensus that surrounds the CPF. Would it have been strategically advantageous to draw the Swedish Democrats into the process leading to the creation of the CPF and create true cross-parliament consensus on Swedish climate policy?

Interview partners who gave their time to be interviewed for this study overwhelmingly saw the exclusion of the Swedish Democrats as positive for the work of the CPCEO, who did not have to contend with a party that did not share core normative principles that united the rest of the committee, in particular the utilisation of targets for GHG emission reductions (Interview 1). Although it is not possible to move beyond conjecture on what effect the presence of the Swedish Democrats might have had on the building of an epistemic community and in turn the process of policy change, it is likely their presence would have greatly impact the knowledge-building process that was at the committee's core. Above all, the shared normative principles, causal beliefs and notions of validity could have been hampered, ultimately potentially standing in the way of an epistemic community even emerging.

Given Sweden's tradition of coalition government, even if the Swedish Democrats did enter government it is unlikely that the CPF would be diluted or abolished as a result, given the support of all other parties in parliament for the framework. Nevertheless, this does throw up an interesting dilemma for other countries aiming to emulate Sweden's model in which an epistemic community plays a central in policy change. Namely, which is the higher order goal, including all parties in the negotiations of a policy framework or excluding certain parties in order to improve the conditions for an epistemic community to emerge?

WP4: Comparison

Nash, S.L. & Steurer, R. (2020) Deliberative development of Climate Change Acts: a comparative study of legislative processes in Scotland, Austria, Denmark and Sweden (to be submitted for Special Issue in Climate Policy).

Over the past decade framework legislation on climate change in the form of Climate Change Acts (CCAs) has emerged as a policy response to climate change. Whilst sharing the broad goal of guiding the reduction of greenhouse gas (GHG) emissions, the level of support in legislatures varies greatly, as does both the structure and ambition of the legislation itself. This article focuses on deliberative elements of the legislative process towards CCAs to assess the influence of deliberation on CCAs both procedurally and

substantively. Procedurally, we focus on the extent to which consensus could be achieved in the legislature and substantively we focus on (increases in) ambition on GHG emission reduction targets. The case studies we compare are Scotland (2009; 2019), Austria (2011), Denmark (2014; 2020), and Sweden (2017), with the deliberative aspects of the legislatives covering a broad spectrum, from practically non-existent to integrated within the core of the legislative process. We find a correlation between more deliberative legislative processes towards CCAs and setting ambitious, legally binding, quantified goals for GHG emissions, that enjoy cross-party support. This has important implications for future legislative processes, where deliberative processes may provide avenues for increasing ambition.

The CCAs of these four legislatures vary greatly (see table 1). In Scotland, the legislation is closely modelled on but also goes further than the UK legislation, both in terms of quantitative targets and complexity of the policy bureaucracy created (Climate Change (Emissions Reduction Targets) (Scotland) Act 2019; Climate Change (Scotland) Act, 2009). In Austria (Klimaschutzgesetz, 2011), and in the 2014 CCA also Denmark (Klimalov, 2014), the legislation is symbolic rather than substantive. The CCA either includes weak quantitative targets for GHG emission reductions only covering emissions from some sectors (Austria), or no quantified legally-binding targets at all (Denmark) and only establishing meagre planning processes. In Sweden, the core text of the legally-binding CCA is a short procedural text, establishing planning and reporting mechanisms, whereas quantified targets for GHG emission reductions, although ambitious, are contained in a subsidiary policy document (Sveriges Regering, 2017). In 2020, a more substantial CCA is being legislated in Denmark that establishes more substantial planning and reporting procedures, as well as quantified long-term and interim targets that are widely considered to be ambitious (Klima- Energi- og Forsyningsministeriet, 2020).

Table 1: Overview of CCAs in Scotland, Austria, Denmark and Sweden

	Quantitative target for GHG emission reduction*	**Planning**	**Advisory Bodies**	**Reporting**
Scotland (2009)	80% by 2050 42% by 2020	Annual targets	UK Committee on Climate Change	Minister annual report to parliament, additional reporting if targets not met, reports on interim targets and 2050 target
Austria (2011)	16% by 2020 in non-ETS sectors, baseline 2005	Annual sectoral targets	National Climate Protection Committee (NCAP)**	Minister annual reports to parliament and NCAP
Denmark (2014)	None: Low-emissions society by 2050	None	Climate Council	Minister annual reports to parliament
Sweden (2017)	Net-zero by 2045, at least 85% reduction	Mitigation Plan	Climate Policy Council	Annual climate report to parliament in budget bill
Scotland (2019)	Net-zero by 2045, 56% by 2020, 75% by 2030, 90% by 2040	Annual targets and climate change plans	UK Committee on Climate Change	Annual report to parliament, additional reporting if targets not met

Denmark (2020)	Net-zero by 2050, 70% by 2030	Interim targets every fifth year and climate action plans	Climate Council (strengthened)	Minister annual report to parliament after budget agreement

* Unless otherwise stated, the baseline year against which GHG emission reduction is compared is 1990.

** A second body, the National Climate Protection Advisory Council was abolished in 2017.

Policymaking on climate change is affected by a broad range of factors; from global treaties and negotiations, to advice from the scientific community, from parliamentary arithmetic and political party interests, to social movements and pressure from civil society there are many influences on the frameworks that are being created to coordinate responses to climate change. However, at the level of the nation-state or sub-state legislature, the actual character of these policy processes is underexplored: how do the ways in which our legislatures make new legal and policy frameworks on climate change impact the content of and support given to these frameworks? Do politicians act differently when they are acting within parliamentary systems that give space to knowledge-building and exchange and allow parliamentarians to genuinely consider alternative propositions that come from across the political spectrum? The analysis of the nature of policy development and the negotiation of outcomes (whether soft agreements or legally binding frameworks) is commonplace in the study of international climate negotiations, yet in nation-state and sub-state legislatures is a perspective that has received little attention.

This article has made a first foray into analysing the (varying) deliberative quality of legislative processes in four legislatures where the result was framework legislation on climate change in the form of a CCA. The degree to which space for deliberation was created for the legislators varied across these processes, as did the degree of support that the legislation was afforded within the legislator, and the strength of its content in terms of quantitative targets for GHG emissions reductions.

We have found a correlation between processes where the official legislative structures included a high degree of deliberation (the cross-party committees of the Scottish Parliament and the Swedish Riksdag and the Borgerforslag process in the Danish Parliament) and CCAs that are ambitious in terms of their quantified targets for GHG emissions reductions and at the same time a high degree of support from across the political spectrum. A further process feature in need of analysis is the impact of transparency; while some deliberative processes are extremely transparent with verbatim transcripts of committee meetings available such as in the Scottish parliament, others such as the consensus-oriented discussions and negotiations in the Danish parliament are held behind closed doors.

These processes of deliberation are embedded within larger political institutional structures as well as broader discourses on climate change, both of which in turn shape deliberation. It is therefore impossible to consider deliberative processes entirely in isolation and draw direct causal links between deliberation and the final form of CCAs. But, understanding policy development not just as an institutional process but also as an inter-personal societal process whereby people interact with one another to produce a policy output, these deliberative parts of the broader picture also cannot be overlooked.

Therefore, our findings are relevant for the development of future CCAs regardless. The content of CCAs, in particular the legally-binding quantified targets for GHG emissions reduction targets that are generally at their centre, is still hugely contested and politically sensitive. They provide a metric by which the ambition of different legislatures can be directly compared, and by which, when it comes to implementation, the performance of the government can be measured. Directly attempting to influence these targets or persuade legislators to support them may therefore be a difficult undertaking. However, process is often easier to address than substance and the less value-laden creation of spaces where legislators can deliberate could provide one pathway to securing more ambitious legal frameworks.

5 Schlussfolgerungen und Empfehlungen

The stock taking and the four case studies on CCAs have shown the following:

- CCAs represent progress in comprehensive climate policymaking, in particular when compared to national mitigation strategies (NMS).
- As they stand today they are most likely still inadequate to deliver decarbonisation until 2050.
- To achieve this goal, more policy innovations will be needed to further improve both the frequency of emission reduction targets and the extent to which they are binding for the entire government and its parts.
- A key weakness of all CCAs is that sanctioning mechanisms are lacking. Consequently, it is not clear what will happen if even formally binding targets are not met.
- Regarding the policy formulation process, we find a correlation between more deliberative legislative processes towards CCAs and setting ambitious, legally binding, quantified goals for GHG emissions, that enjoy cross-party support.

Our main recommendations on how to make CCAs work:

- CCAs should combine binding long-term targets with binding short and medium-term targets to guide climate policymaking continuously towards decarbonization.
- Including sectoral targets in CCAs is also worth exploring further in different contexts, especially as the low-hanging fruit of relatively easy emissions reductions are achieved and more difficult measures need to be made to achieve further reductions.
- Overall as well as sectoral targets should be linked to a planning process such as the carbon budgets system that ensures that governments are actively planning for how these targets are going to be met.
- If governments fail to reach targets, CCAs should specify some kind of sanctioning mechanism. If failing targets is not sanctioned it is a bit like having speed limits and radar controls without penalties.

C) Projektdetails

6 Methodik

The project structure has been summarised above (see objectives). In the CCA project we developed an analytical framework (WP1), we conducted a survey on CCAs in OECD countries (WP2), four case studies (WP3) and a comparison (WP4).

The main methods used in the disciplinary political science research conducted in the CCA project are literature reviews (mainly in WP2), qualitative case studies (WP3) and their systematic comparison (WP4). The case studies resemble “case research with a purpose”, i.e. we enter the case study process with specific research questions.

The main sources of information for the case studies were

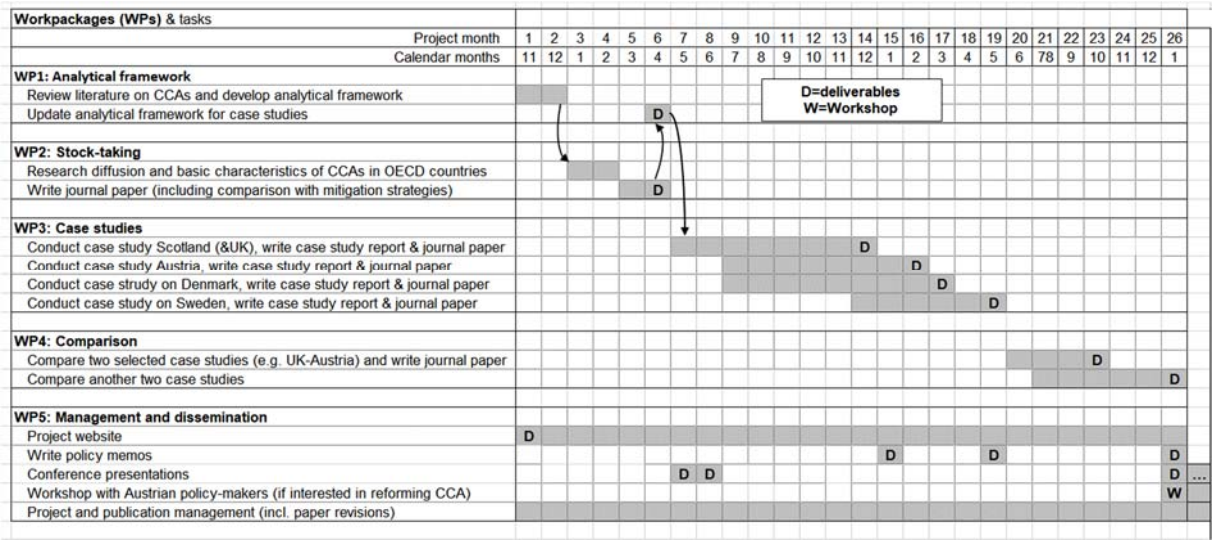
- Desk research covering policy documents, academic literature and internet sources;
- 43 semi-structured interviews (between 9 and 14 per country) with government officials and non-state experts (among them NGOs, business representatives and academics).

The case studies have been analysed within-case and cross-case. A key aim of the cross-case comparison was to identify factors that determine the success or failure of CCAs. The comparability of the cases has been ensured by selecting and analysing them based on a common analytical framework developed in WP1. In addition, comparability has been facilitated by the fact that all case studies have been conducted by the same researchers.

7 Arbeits- und Zeitplan

The work and time schedule of the CCA project is characterised by a cost-neutral extension of the project duration. This was possible because we shifted costs from external advisors to personnel costs, and by covering travel costs with other funds.

As the updated GANTT chart shows, we have extended the time to conduct the Austria case study and to conduct other case studies in parallel. This is due to the difficulty of securing interview partners. Due to quick progress with the other case studies this did not impact the overall duration of WP3.



8 Publikationen und Disseminierungsaktivitäten

The main purpose of the CCA project was to deliver high-quality journal manuscripts, to be presented at international conferences and published in internationally recognized environmental policy journals. Since the public became highly interested in climate policies, we amended this dissemination effort with communicating our findings also through mass media outlets, such as radio and newspapers. Overall, our dissemination have surpassed those envisioned in the proposal as follows:

Journal papers and paper manuscripts: 6 (6-7 planned)

1) Nash, S.L. & Steurer, R. (2019) Taking stock of Climate Change Acts in Europe: living policy processes or symbolic gestures?, in: Climate Policy, 19/8, 1052-1065.
2) Nash, S.L. & Steurer, R. (2020) The Austrian Climate Change Act: A Symbolic Frontrunner Lagging Behind in Content (to be submitted soon).
3) Nash, S.L. & Steurer, R. (2020) From Symbolism to Substance: What the renewal of the Danish Climate Change Act tells us about the driving forces behind policy change (submitted to Environmental Politics).
4) Nash, S.L. (2020) 'Anything Westminster can do we can do better': The Scottish Climate Change Act as world-leading legislation designed to put a sub-state nation on the international stage (submitted to Environmental Politics).
5) Nash, S.L. & Pamperl, L. (2020) A Framework Built on Shared Knowledge: A Cross-Party Committee as Epistemic Community in the Development of Sweden's Climate Policy Framework (to be submitted soon).
6) Nash, S.L. & Steurer, R. (2020) Deliberative development of Climate Change Acts: a comparative study of legislative processes in Scotland, Austria, Denmark and Sweden (to be submitted for Special Issue in Climate Policy).

Special issue of an academic journal: 1 (not planned):

1) Nash, S.L., Torney, D. & Matti, S. (Forthcoming) Climate Change Acts: Origins, Dynamics and Consequences. Special Issue accepted by Climate Policy.

Book chapter: 1 (not planned)

1) Nash, S.L. (forthcoming, 2020) Denmark's Climate Change Act(s) in Muinzer, T. (ed.) 'Major National Climate Change Acts. Their Emergence, Form and Nature', Hart.

Conference presentations & posters: 4 (2 planned)

1) Nash, S.L. & Steurer, R. (2019) The Legislation of a Climate Laggard; 20. Klimatag, 24.-26. April 2019, Wien/Austria.
2) Nash (2019) "Anything Westminster can do we can do better": The Scottish Climate Change Act as world-leading legislation designed to put a sub-state nation on the international stage, Presentation at the Nordic Environmental Social Sciences/NESS Conference, Luleå, Sweden, 11/06/19.
3) Nash, S. & Steurer, R. (2018) Climate Change Acts: Comparing diffusion, governance and policy relevance; 19. Klimatag, 23.-25. April 2018, Salzburg/Austria.
4) Nash, S. (2018) Panellist in 'Policy session: The Impacts of Climate Change Acts: Emissions, Policies, and Public Opinion', 26/06/18, 6th World Congress of Environmental and Resource Economists, Gothenburg.

Newspaper commentaries & interviews: 3 (not planned)

1) Steurer, R. & Nash, S. (2019): Das zahnlose Klimaschutzgesetz novellieren! Vorschläge für ein neues Rahmengesetz, das die Weichen für eine klimapolitische Wende in Österreich stellen könnte, in: Der Standard, https://www.derstandard.at/story/2000111634979/das-zahnlose-klimaschutzgesetz-novellieren, November 2019.
2) Steurer, R. & Nash, S. (2019): Der Nationalrat und die Klimakrise: Stell Dir vor es ist Klimanotstand – und wir machen weiter wie bisher, in: Der Standard, https://www.derstandard.at/story/2000109088341/der-nationalrat-und-die-klimakrise, September 2019.
3) Søgard, F. (2019) International ekspert: Den danske klimalov er forældet [International expert: The Danish climate law is out of date], published in Altinget, 26. February 2019. Available at: https://www.altinget.dk/artikel/international-ekspert-den-danske-klimalov-er-foraeldet, Februar 2019.

Radio interviews: 4 (not planned)

1) Interview with Sarah Nash on the postponed COP26 in Glasgow 05/02/2020: https://fm4.orf.at/player/20200205/4RC/1580902223739
2) Interview with Sarah Nash on the Austrian Climate and Energy Plan, 19/12/2019: https://fm4.orf.at/player/20191216/4RC/1576494999076
3) Interview with Sarah Nash on the Austrian Climate Change Act, 15/10/2019: https://fm4.orf.at/radio/stories/fm4realitycheck/
4) Interview with Sarah Nash on the declaration of a climate emergency in Austria, 20/09/2019: https://fm4.orf.at/player/live

Overall, our dissemination activities have surpassed what we have promised in the project proposal. In addition, we intend to write a second comparison as an additional journal paper or a second book chapter.