




Sustainable development and climate change mitigation at the rural municipal level in Austria

Tracing policy diffusion, process dynamics and political change

It is widely acknowledged that municipalities play an important role in the transition towards sustainable development and climate change mitigation. But how well do they really meet these expectations? Focusing on the diffusion of pertinent policies in local, rural Austria, we analyse whether the policy diffusion has induced procedural, political and programmatic effects and, if so, how it was accomplished. The results fall short of expectations.

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Abstract

Although it is widely acknowledged that municipalities play an important role in the transition towards sustainable development and climate change mitigation, there is a notable lack of studies focusing on the diffusion of pertinent policies at the local level. This paper analyses the diffusion of sustainable development and climate change mitigation policies in rural Austrian municipalities. We scrutinise the policy diffusion rates and patterns. In doing so, we ask whether policy diffusion has induced procedural, political and programmatic effects within the rural government context and, if so, how these changes were accomplished. The results show that the lack of political commitment, political incoherency and insufficient support are major barriers impeding diffusion and implementation. Insufficient programmatic effects are explained by the fact that only “easier” measures have so far been implemented. These “easy” measures stop short of profoundly tackling structural problems or challenging current practices. In contrast to the high expectations regarding the role of municipalities in transitioning towards sustainability and climate-friendly practices, municipalities appear not to have the competencies nor the capacities to implement far-reaching, system-changing measures on their own.

Keywords

climate change mitigation, Local Agenda 21, local diffusion, political change, political effects, rural municipalities, sustainable development

It is broadly acknowledged that local governments can play a substantial role in attaining sustainability goals and in reducing global greenhouse gas emissions (EC 2016). As the level of administration closest to the people, municipalities are expected to play a vital role in promoting sustainable development (SD) and climate change mitigation (CM) (Crow 2012, Schreurs 2008, UN 1992). One can thus expect that success or failure in pursuing climate and sustainability goals also depends to a certain extent on the uptake of SD and CM policies by local governments.

Against this background, it is surprising that there is a notable lack of studies focusing on the diffusion of SD and CM policies at the rural, local level (Aall 2012, Kern et al. 2007, Schreurs 2008, Wolman and Page 2002). Thus, in this paper we investigate local policy diffusion rates and overlaps of SD and CM policies in rural municipalities in Austria. In this country’s municipalities, SD and CM are mainly pursued with the help of four distinctive long-term programmes, which entail the ambition to upscale and facilitate wider and mainstream action towards shared goals, such as the *Sustainable Development Goals (SDGs)* and the *Paris Agreement* of the United Nations Framework Convention on Climate Change (UNFCCC). We ask whether policy diffusion of these programs has induced procedural, political and programmatic effects within the local government context. The main objective of this paper is to provide knowledge on how global, European and national programmes can be mainstreamed to local, rural levels to support local sustainability transitions by 1. analysing how diffusion of SD and CM policies is taking place, and 2. by identifying factors which facilitate or hinder diffusion, particularly in small rural Austrian municipalities. >

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Analysing policy diffusion and political change at the local level

The spreading of policy innovations (Jordan and Huitema 2014) is referred to by the term *policy diffusion*. Policy diffusion studies are mostly quantitative with a large number of cases assessing the existence of policy spread (Gilardi et al. 2021, Mallinson, 2021). They treat diffusion mainly as a dichotomous outcome (adopted/not adopted) and explain what favours or hinders the diffusion of policy innovations (Marsh and Sharman 2009, Tews 2005). In turn, policy transfer studies are generally qualitative in orientation. These studies are based on a low number of cases and focus merely on describing the process of policy innovation diffusion. They address “process tracing”, agency and the ways in which transfer relates to policy outcomes (Bender et al. 2014, Marsh and Sharman 2009). Policy transfer studies perceive spread rather as a matter of degree than as a dichotomous outcome (Marsh and Sharman 2009). Both research streams mainly focus on spread at the national level.¹

Policy diffusion and transfer studies are usually considered separately from one another (Gilardi and Wasserfallen 2019, Porto de Oliveira 2021), although they provide complementary methodologies and explanations for policy innovation spread (Bender et al. 2014). In this paper, we include aspects of both approaches when tracing and explaining the local spread of policy innovation as some authors have advocated (Dolowitz and Marsh

1996, Tews 2005). We analysed quantitative data on diffusion and combined them with process-oriented, qualitative results, relating the diffusion processes also to political change and policy outcomes.

fluenced by specific local problem pressures as well (Bender et al. 2014, Shipan and Volden 2012, Tews 2005). A recognised feature of diffusion is its voluntariness (Bui 2015, Maggetti and Gilardi 2016, Rogers 2003, Shipan and Volden 2008). Diffusion mechanisms include learning, competition and imitation (Bui 2015, Marsh and Sharman 2009, for a critical review on these diffusion mechanisms, see Blatter et al. forthcoming). In Austria’s federal system, semi-coercive relations between the municipalities and *Länder* (federal states) or the national state cannot be ignored either. Local diffusion in such a framework also comes about due to hierarchical steering and includes, beside voluntariness patterns of (soft) coercion such as persuasion, subsidising, loan and aid conditionality. These patterns may occur simultaneously and complementarily throughout the diffusion process (see also Dobbin et al. 2007). Hence, we gained more analytical insight from the direction of diffusion and thus classified the diffusion patterns in this paper as *top-down*, *horizontal* and *bottom-up diffusion*.

Following the work of Marsh and Sharman (2009), we complement the patterns of direction with categories from transfer studies that allow for a more nuanced understanding of the process involved. Hence, we analyse diffusion and the resulting political change along three distinctive dimensions, namely the *procedural*, the *political* and the *programmatic dimension*. The first dimension puts its focal point on processes, means and tools of management, alongside cooperation and interactions within and

Local capacities and actor configurations determine the responsiveness of rural municipalities to emerging environmental policy innovations.

Scholars agree that high complexity and a long-term nature of a problem tend to reduce and/or slow down policy diffusion (Bennett 1997, Tews 2005). However, the complexity of a policy also needs to be considered. Cross-sectoral policies that are not compatible with prior practice and need to be approached through experimentation and distributed learning loops over time, spread more slowly (Shipan and Volden 2012). Non-disruptive policies which do not require a substantial break with the past diffuse more easily (Tews 2005). Preconditions in recipient municipalities, which are the “soil in which the seed of change is sown”, also determine a “structure for change” (Lenschow et al. 2005, p. 801). The role of local actors, their capacities, engagement and attitudes towards SD and CM have a strong impact on the uneven tempo of diffusion (Bender et al. 2014, Marsh and Sharman 2009). Furthermore, the responsiveness of municipalities is in-

beyond existing administrative borders. The political dimension centres on issues such as commitment and support, which policy innovations receive from policy makers, as well as coherence with other policies and political decisions. The programmatic dimension deals with the content of the policies and its change over time, together with perceived results regarding effectiveness and efficiency.

In our understanding, local-level diffusion occurs when a municipality pursues activities that are distinctively labelled with SD or CM and are supported by respective SD and CM policies, that is, strategies, plans and measures. Further, we understand diffusion as a process by which political change is induced, without the process of change needing to be completed (Rogers 2003).

Methodological approach

Our empirical work is based on analysing data of the scrutinised programmes dealing with SD and CM at the rural municipality level. The quantitative data on programmes cover the entirety of Austria. 13 qualitative interviews and three focus group discussions were conducted. They particularly addressed actors

¹ Exceptions in the area of environmental policy innovation are the work of Kern et al. (2007) and Madlener (2007).

TABLE 1: Overview of programmes targeting sustainable development or climate change mitigation at the local level in Austria (AT) (data collection: August 2018)^a (cf. Feichtinger et al. 2018, p. 3).

PROGRAMME	SINCE	COVERAGE	ACCESS	NO. OF MUNICIPALITIES	% OF ALL AUSTRIAN MUNICIPALITIES	DURATION AND OTHER INFORMATION
SUSTAINABLE DEVELOPMENT						
<i>Local Agenda 21</i>	1998	all 9 states (Carinthia discontinued activities)	high threshold	498 (302 active)	24% (14%)	diverse duration (several months up to a few years), topics and quality of processes differ
CLIMATE CHANGE MITIGATION						
<i>Climate Alliance</i>	1990	all 9 states	low threshold	975	46%	long term; different levels of activities, varies over times
<i>e5</i>	1998	7 states (not Vienna and Upper AT)	high threshold	217	10%	synonymous with <i>European Energy Award</i>
<i>Energy-Saving Community (E-GEM), Community Energy Programme (E-GEP)</i>		1 state (Upper AT)	high threshold	182 (E-GEM, E-GEP)	9% (in Upper AT: 41% of the 440 municipalities)	<i>E-GEM</i> terminated in 2016; now <i>E-GEP</i> , similar to <i>e5</i>
<i>Climate and Energy Model Regions (KEMs)</i>	2009/2010	8 states (not Vienna)	high threshold	772 (organised in 91 KEMs)	36%	2 years, extension up to 5 years

a The authors mainly received data on active municipalities from authorities responsible for the respective programmes: for LA21, from sustainability coordination (Federal Ministry); the CA provided data on its institution; data on e5 was retrieved from the platform www.e5-gemeinden.at; data on E-GEM and E-GEP was provided by climate coordination in Upper Austria and data on the KEMs was provided by the Climate and Energy Fund in Austria. The data lists received represent all of Austria's municipalities and were adjusted and merged.

coming from or working with small, rural municipalities with a maximum of 30,000 inhabitants.

The interviews were conducted with key actors in SD and/ or CM processes; namely with four civil servants from the federal-state level (e. g., SD and CM coordinators), with five representatives from agencies in charge of promoting SD and CM programmes at the local level (such as *Climate Alliance*, regional energy agencies) and with municipality-level civil servants or mayors. Interviewees from the local level came from municipalities with 1,500 to 5,000 inhabitants. In the first two focus group discussions the participants were from municipal level (e. g., mayors, local administrators, and representatives from agencies). Eight of these discussants came from municipalities with 1,400 to 5,000 inhabitants, seven with 5,000 to 10,000, two from 10,000 to 13,000 and two discussants came from a municipality with around 25,000 to 30,000 inhabitants. The third focus group consisted of key actors from the federal-state level, including sustainability as well as climate coordinators and regional managers from six federal states. One participant came from the national Federal Chancellery.

The empirical work was conducted in 2016 and 2017. Additionally, publicly available documents (e. g., strategy papers, annual reports, leaflets, websites of the programmes), media reports and the literature were assessed.

Interview and focus group discussion recordings were transcribed and the data analysis followed the process of "thematic coding" as elaborated in Kuckartz (2010). Thematic coding in-

cludes theoretical knowledge in the analysis and with that combines both a deductive and inductive approach. A draft coding frame was derived from theoretical preliminary considerations and structured according to the research questions. Then the empirical data (transcripts) were processed with help of the computer program *MaxQDA*. The final coding tree was constantly adapted and further elaborated taking into account information from the transcripts. Categories and concepts were distilled, refined and aggregated.

Local diffusion of sustainable development and climate change mitigation programmes

Municipalities are expected to play a significant role in achieving SD and CM. At the same time, they are subject to statutory and regulatory provisions and bound to directives from higher hierarchical levels. The political-administrative structure in Austria comprises three main levels: 1. the national government (national level), 2. nine federal state governments (*Länder* level), and 3. municipalities with distinct local governments (local level). Austria is characterised by a large number of small municipalities. Of the country's 2,095 municipalities, 73% have less than 3,000, and only 4% have more than 10,000 residents (Statistik Austria 2020). 55% of the Austrian population (absolute number: 4.6 million inhabitants) live in the 96% of municipalities of up to 10,000 inhabitants (Statistik Austria 2011). The municipalities

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FIGURE 1: Local diffusion and overlap of sustainable development (SD) and climate change mitigation (CM) programmes at the municipality level in Austria (data collection: August 2018).



in this country vary widely regarding social and economic structure as well as financial and human resource capacities (Kommunalkredit 2016). Despite their differences, all municipalities have to fulfil the same duties (Öhlinger and Eberhard 2016). They are administrative units, local authorities and self-governing institutions. The responsibilities of the municipalities comprise primary education, local safety, local traffic and infrastructure, settlement and housing, health and environmental protection amongst others (Fallend et al. 2001).

The four distinctive long-term programmes applied to pursue SD and CM in the Austrian municipalities are the *Local Agenda 21 (LA21)*, the *Climate Alliance (CA)*, the *European Energy Award (EEA)* and the *Climate and Energy Model Regions (Klima- und Energiemodellregionen, KEMs)*. Table 1 provides an overview and distinctive features of the SD and CM programmes. Municipalities, especially such with sufficient (financial) capacities, may also implement SD and CM activities beyond the scrutinised programmes, but these cases are not included in the study.

When analysing diffusion rates, the characteristics of the respective programmes need to be taken into consideration. *CA* aims to raise awareness and introduce low-threshold CM activities in the municipalities and is thus characterised as open to any municipality interested in becoming a member of the alliance. *CA* membership offers a broad range of consultancy services with regard to climate protection.

The other programmes are generally more resource-intensive, and the participating municipalities also need to prove their willingness in financial terms. The *e5* programme for energy-efficient municipalities was first established in the federal states of Salzburg, Tyrol and Vorarlberg and later further developed in an EU project and renamed as *European Energy Award* in 2002. Prevailing in Austria under the term *e5*, the programme is currently established in all states other than Vienna and Upper Austria. Upper Austria developed a comparable programme with similar activities, scope and aim – the *Energy-Saving Community (Energiespargemeinde, E-GEM)* which continued as *Community Energy Programme (Gemeinde-Energie-Programm, E-GEP)*. The *KEM* programme is the only national programme and co-finances regional CM projects and management structures of model regions, which have no political-administrative governance equivalent. For the diffusion of the *LA21*, two different numbers are

indicated in table 1. The first number contains all municipalities that have pursued an *LA21* process, including processes that became inactive (BMLFUW 2015). The second number in brackets indicates *LA21* processes, which were active during our study².

We want to stress that the data in table 1 on CM programmes shows past or present participation of the municipalities in the respective programmes, but it does not mean that they are active at the moment. The interviewees mentioned that several initially engaged municipalities became inactive in *e5*, *KEM* and *CA*. Exact numbers were not available. The interview partners reported that some *KEM* municipalities are even barely aware that they are part of the programme. Some *e5* processes have already come to an end. The *E-GEM* programme in Upper Austria terminated in 2016, and the new *E-GEP* started with a few municipalities. Further, the data do not provide insight into the effectiveness of the programmes or how seriously the municipalities are pursuing SD and/or CM goals.

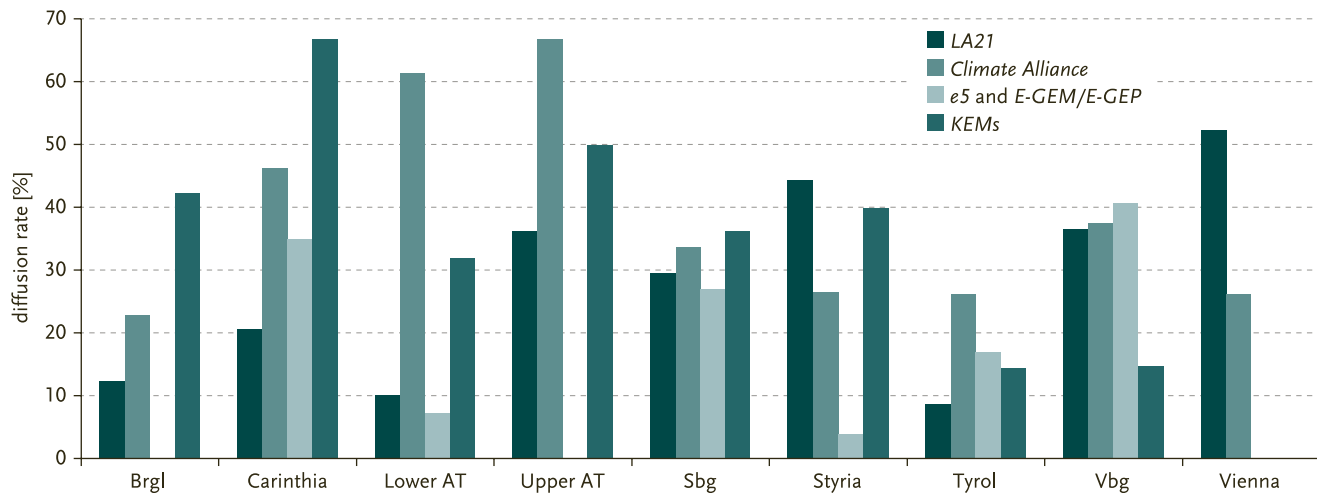
The analysis of solely CM programmes showed that 35% of all municipalities never participated in any CM programme; 36% of all municipalities were active in one of the programmes, 21% were active in two CM programmes, and 8% participated in all three CM programmes. Figure 1 shows the diffusion and overlaps of SD and CM programmes in all Austrian municipalities.

Local capacities and actor configurations determine the local responsiveness to emerging environmental policy innovations. According to the Austrian Association of Municipalities (Österreichischer Gemeindebund 2019), 33% of Austrian mayors have an external full-time job and act in their capacity as mayor only in their spare time, 36% work part-time in addition to their job as a mayor, and only 31% are full-time professional mayors. The municipalities often lack know-how regarding SD and CM, as well as how to develop project proposals and implement processes.

In order to successfully adopt and implement SD and CM activities, a certain level of commitment on the part of the mayors towards the cause is seen as crucial. In municipalities where diffusion proved successful, at least one local actor had pushed ideas forward within the municipality. These actors reported that it takes a lot of perseverance to bring SD and CM issues onto the municipal agenda. Some interview partners stated that municipal councils frequently lack SD and CM expertise and that discussions are often not primarily based on objective and content-related arguments. Political frictions and conflicts in the municipal council often impede diffusion, especially when the idea had been introduced by a minority party. At the same time, the interviewees observed that the preferences of council members depend more on individual priorities, awareness and knowledge than on political affiliation. The representatives from Austrian municipalities often referred to socio-economic pressures and corresponding actual or latent needs that triggered SD and CM diffusion. Tangible problems related to energy supply or pollution were seen to strengthen the diffusion of CM

² Source: list of active *LA21* processes, received from the Austrian Environment Agency (2017).

FIGURE 2: Local diffusion rates of sustainable development or climate change mitigation programmes in Austria disaggregated by federal states (data collection: August 2018) (cf. Feichtinger et al. 2018, p. 5). LA21 (*Local Agenda 21*), E-GEM (*Energy-Saving Community*), E-GEP (*Community Energy Programme*), KEMs (*Climate and Energy Model Regions*), AT (Austria), Brgl (Burgenland), Sbg (Salzburg), Vbg (Vorarlberg).



policies. According to some interviewees, problems charged with emotions that have no direct relation to the municipalities, such as political uncertainties in oil- and gas-supplying countries or accidents in far-off nuclear power plants, can intensify the local policy diffusion of CM.

Top-down diffusion: the role of higher hierarchical levels

Even though policy diffusion at the national level is considered as an essentially horizontal phenomenon (Karch 2006), top-down patterns prevail in local diffusion. Our results show that particularly the incentives from federal governments play a significant role for rural areas (see also Gilardi 2016, Kern et al. 2007). The percentages of municipalities in each Austrian federal state having engaged in the SD and CM programmes can be compared in figure 2. The diffusion rate of the CA programme, for instance, is 66% in Upper Austria and 61% in Lower Austria while Burgenland has a considerably lower membership rate of 23% and Tyrol of 25%. According to the interviewees this correlates with the level of support offered by higher-level governments and administration; in Upper and Lower Austria the federal-state governments widely promote the CA, and the receipt of specific subsidies also conditioned by CA membership. Burgenland and Tyrol do not particularly support membership. Interviewees also observed that the diffusion of LA21 processes depended on support provided by the states.

The municipal interview partners perceived the federal-state level as an appropriate framework for the provision of quality-assured information and subsidies. Personal contacts and close cooperation between local actors and officials from that level help reduce the problem of limited capacities at the local levels (Kern et al. 2007). The federal states support the active uptake of local-level SD and CM processes, steer the activities and influence agenda setting (Kern et al. 2007, see also Shipan and Volden 2008).

Horizontal diffusion: transfer agencies and networks

Horizontal diffusion from municipality to municipality is not an evident diffusion pattern in Austria. However, the relative insignificance of horizontal local diffusion changes when the increasingly institutionalised transfer agencies are taken into account. They aim at the spread of SD and CM visions, knowledge and good practice. Most of the transfer agencies evolved because support was provided by funding programmes operated at higher hierarchical levels. The transfer agents form horizontal networks between municipalities to speed up diffusion (see also Bender et al. 2014, Kern et al. 2007). The regional branch offices of the CA are examples of transfer agencies; they describe themselves as a network of local actors operating on a par with the municipalities at eye-level. Another example of transfer agents are the KEM managers who work directly in the region promoting local CM activities and connecting municipalities. Transfer agencies can also help overcome the problem of limited capacities in small municipalities through regional clustering, expert pooling, more centralised provision of information and knowledge, process guidance and by providing space for exchange and learning.

Bottom-up diffusion: local initiatives

The activities of independent individuals, single initiatives or projects have at times also led to the adoption of SD and CM policies at the rural level. In Lower Austria, for example, individuals in the relatively poor Waldviertel region formed an initiative to assemble their own solar collectors and reduce energy costs. Similarly, local farmers constructed a biomass heating plant in Upper Austria. After such non-institutionalised projects had been successfully implemented, municipal politicians tried to set the projects in a broader political context and to connect them to the already existing support framework of the federal states to gain (more) funding and political attention. We classify this phenomenon, which is primarily driven by personal motivation, as bot-

tom-up diffusion. However, it seems to be the exception rather than the rule. The literature on diffusion has argued that large municipalities and cities with higher capacities are more open to such bottom-up innovations than small ones (Aall 2012, Kern et al. 2007, Rauken et al. 2015, Shipan and Volden 2008).

Policy outcome and political change

Although the adoption of SD and CM programmes can be regarded as evidence for policy diffusion, the sheer number of participating municipalities says little on the effect of their activities. In this study we had the advantage that municipalities active in SD and CM could often look back on more than two decades of experience. The next section deals with the changes in and effects of local SD and CM processes in Austria. Following Marsh and Sharman (2009), this paper distinguishes three dimensions of effects – the *procedural*, the *political* and the *programmatic dimension*.

Procedural dimension: changes in coordination and institutionalisation

The SD and CM processes called for coordination units and patterns of communication at all hierarchical levels, which together contributed to a new governance structure and new procedures. Over the years, the changes in governing local SD and CM have to a certain extent reflected learning processes, but also changes in political attention.

With increasing political importance, the number of actors and programmes in SD and CM has increased but lacked adequate coordination. Particularly CM faced the problem of unclear responsibilities and emerging parallel structures. For example, the national *KEM* programme pursued the establishment of energy consulting in the region. However, efficient energy consulting structures had already been in place in some federal states. The lack of coordination between *KEMs* and the federal-state level resulted in parallel energy-consulting structures which later were dissolved. The actors concluded that parallel activities can be avoided, resources can be pooled and synergies can be used by planning and implementing activities in close collaboration. Many actors indicated that the current SD and CM governance structure works well or at least considerably better than when the programmes started. Some transfer agencies reported that they adjust their specific focus to differentiate themselves from other CM actors and to find distinctive niches for their CM activities.

In the area of CM, the challenge of parallel structures was also discussed with regard to the provision of information. When CM gained importance, the municipalities faced the situation that many different actors approached them with information and project ideas. For this reason, a growing demand from the local level for quality-assured, reliable and bundled information provided by only one unit emerged. In Lower Austria, this demand was met with the establishment of an *Environmental Com-*

munity Service that provides information and service for environmental councillors and energy commissioners in the municipalities. In Upper Austria a coordinated approach and a certain extent of quality assurance is warranted through financial incentives. When specific actors approach a municipality, for example, for awareness-raising activities, funding is only granted if the project was previously communicated to and approved by the CA. The interviewees from the municipalities stressed that in addition permanent and personal federal-state-level contacts who are approachable without much bureaucracy are essential. For local actors, it is important to receive customised information.

According to the interview partners, organised exchange between municipalities has never been standard, and the majority of municipalities are not part of cross-municipal networks. Nonetheless, the implementation of SD and CM policies at the local level has triggered new networking activities between municipalities, which hold the promise of fostering horizontal policy diffusion. Specific institutionalised meetings allow regular exchange between the municipalities. Examples include the Austrian *LA21 Summits*, which are alternatingly hosted by the federal states, the national and regional CA events and regional *KEM* network meetings. These meetings are intended to discuss which ideas and activities to take up and at which level, regional or local. Horizontal networking has been recognised as important in accelerating SD and CM diffusion, but also in enabling mutual inspiration and learning during implementation.

Political dimension: coherence and commitment

Regardless of the growing complexity of governance, diffusion and implementation of CM and SD is largely a matter of political steering and political leadership. Political coherency and commitment strongly contribute to success or failure of CM and SD (Bovens et al. 2001).

The interviewees stressed that incoherent and contradictory policies on all levels continue to represent a significant barrier to diffusion and successful implementation. A striking example for the national level is the funding of renewable energy, which is beneficial for CM, while at the same time fossil fuels are not adequately taxed and in part even subsidised, thus giving rise to drawbacks. The local interview partners criticised the common approach in Austria to solve political conflicts of interest by presumably satisfying all interests to some extent but not by making courageous, coherent decisions.

The interview partners generally acknowledged that establishing political commitment across all political levels and sectors is essential for political success, that SD and CM generally lack sincere political commitment at all levels, and that commitment is only achieved selectively. Commitment and support is propelled when SD and CM activities result in positive evaluations of politicians. Some interviewees considered participatory strategy processes on federal-state and national levels as an important approach to reinforce local, federal and national political commitment. This allows sustainable networks to be established with positive effects on political (and financial) support. How-

ever, it was criticised that most strategy processes lack time to operationalise objectives and strengthen local expertise.

The lack of political commitment is directly mirrored in low financial commitments, which are generally seen as one of the main barriers to the implementation of SD and CM measures. First, the interview partners criticised that the funding programmes are too fragmented. Even experts from federal-state level acknowledged that it is difficult and time-consuming for local actors to acquire an overview of the existing funding possibilities. Second, it was repeatedly noted that official instructions and financial regulations are complicated, complex and not sufficiently flexible. The interviewees experienced a disproportionately large extent of bureaucracy and increased paperwork in both, the application phase and during implementation. Third, they criticised that the funding often covered strategy processes, but stopped short of implementation measures. Finally, the interviewees claimed that the short-term nature of current funding falls far too short to initiate structural change.

Programmatic dimension: focus and perceived effects

The third dimension focuses on agenda setting and perceptions of programmatic effects. It is important to recognise that even if policies are found to be similar in their formal content, and even if they follow a common trend, they may be practiced and implemented in different ways in various federal and municipal settings (Marsh and Sharman 2009).

Our analysis shows that content-related agenda-setting has been subject to change over the years. In the beginning, local CM activities were strongly driven and supported by NGOs coming from the area of development cooperation. In the course of time, however, a shift towards a focus on energy and technical solutions became evident. The interviewees criticised that the current focus is too narrow to tackle CM in its entire complexity. While in the beginning, LA21 processes showed a tendency towards environmental aspects, the current focus tends to be on the social aspects of sustainability.

The interview partners criticised that only “easier” projects have so far been implemented, which stop short of challenging and profoundly addressing structural problems. The implemented measures hardly affect, question or change current practices. In CM, municipalities often deal with energy issues, while mobility, for example, is treated only as a supplement to private motorised transport (e.g., with bicycle paths that fail to cut back existing motorised transport structures). System-changing measures would be more costly and subject to conflicts. The interviewees concluded that internationally agreed objectives cannot be achieved with the current scope of performance. The focus on smaller feasible objectives, which have a higher likelihood for success, is perceived as a clear shortcoming. This result corresponds to the literature on diffusion; Tews (2005) and Upham et al. (2014) stated that most of the climate policy innovations have focused on technological substitution and incremental change rather than path-breaking innovations. This approach is typically supported by dominant regime actors and structures,

while instituting policy change with a wider systemic focus is likely to require the support of actors in multiple policy regimes (Upham et al. 2014).

Conclusions and future prospects

The diffusion rate of Austria’s local SD and CM programmes is influenced by their set-up: the CA is framed as an entry-level programme for gaining CM knowledge and know-how open to all municipalities. By targeting regions, the KEM programme also reaches a relatively high number of municipalities, while e5 and LA21 were clearly designed as “elite programmes”, deliberately reserved to frontrunners and thus not accessible to the vast majority of municipalities. Diffusion is also influenced by the support from federal and national level; for example, through financial incentives, guidance and quality assured information systems. External process guidance is seen as important in successfully performing SD and CM processes.

The problem of limited capacities, resources and know-how on how to pursue SD and CM goals, especially in small, rural municipalities, is a barrier to successful diffusion and implementation. Capacity building and information provision at the local level is perceived as indispensable. This complies with the literature in diffusion theory, which emphasises that local information access facilitates sense-making and enables cognitive learning. It is necessary for prospective adopters to overcome a specific “information threshold” in order to bypass certain levels of scepticism or concerns toward a given innovation (Bui 2015, Wang and Ramiller 2009).

At the rural, municipal level in Austria, SD and CM processes are mostly initiated by few individuals and supported and pursued by a small number of key actors (change agents/“policy entrepreneurs”). The small number of actors is prone to the problem that a programme is easily abandoned when key actors withdraw their activity. In some cases, this has resulted in a lack of critical mass and the dissolution of the respective SD and CM activities. To facilitate continuity and know-how development within the municipality, the interviewees emphasised the importance of employing local officers in rural municipalities, who deal exclusively with sustainability, climate and environmental issues and who have the operational capacity to access support programmes and to manage administrative requirements.

Austrian municipalities seem in general more open to “easier” projects, which stop short of profoundly tackling structural change. Benefits are often framed in economic terms, such as cost savings in energy supply. Local policy makers generally want their SD and CM projects to become successful in the short term. Thus, political decisions tend towards short-term actions and measures, the results of which are detectable within an election period. Consequently, the complex nature of the existing problems is often reduced to smaller defined policy realms and to objectives that are compatible with existing practices that fail to challenge current structures, institutions and processes.



Concerns have also been raised that so far most of the decision-makers in Austria either avoid or are unaware of the far-reaching content and implications of the *Paris Agreement* and *2030 Agenda*, regardless of the hierarchical level. In contrast to the high expectations in transitioning towards sustainability and climate-friendly practices, especially rural municipalities fall short of competencies and capacities to implement far-reaching, system-changing measures on their own. Instituting policies with a wider systemic focus requires the support of actors across multi-level policy regimes (Upham et al. 2014). Municipalities, however, cannot override the existing, fragmented and partly contradicting framework of federal and national laws, funding programmes and other policies. Thus, the problem of insufficiently coherent policy frameworks and limited local capacities must be considered and solved through appropriate support.

If support from higher levels is not considerably strengthened towards courageous and coherent policy frameworks to leverage sustainability, the current situation at the municipality level will most likely not change. Local climate and sustainability policies will then continue to be limited to a few front-runners and isolated singular lighthouse projects, which in a larger context run danger to remain in their niches and to deliver merely symbolic contributions to the global quest for sustainability and the reduction of greenhouse gas emissions (Aall et al. 2007). SD and CM should turn towards measures that pursue long-term goals and initiate transition processes and transformative change. This means that decision-makers and actors involved at all concerned levels need to obtain and embrace a specific “culture of the future”, including co-developed long-term thinking and planning in daily decisions.

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W wie Wachstum

Die Klimakrise und Pandemien wie die Corona-Pandemie zwingen uns, das Wachstum der Städte neu in den Blick zu nehmen – nur so können wir den Krisen der Zukunft begegnen. Die Architektin und Stadtplanerin Ingrid Krau nimmt dafür die international vehement zunehmende Verstädterung, immer kompaktere Siedlungsstrukturen und die globale Vernetzung in den Blick.

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