Translating Global Goals to Local Contexts -
Organizational Choice for the Implementation of the 2030 Agenda
in Swiss Cantonal Administrations

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Preface

Humankind is progressively acknowledging – and experiencing - the impact of its activities on the foundations of our livelihoods on this planet. At the same time, billions of people lack the means to fulfill their most basic human needs and they are often most vulnerable to the threat of losing their life, home and livelihood (Messerli et al., 2019).

The Anthropocene, as the notion of a geological era, that is predominantly shaped by human action, captures the magnitude of the issue on a global scale (Crutzen, 2002). To illustrate how this trajectory affects individuals, nations or humankind altogether, scientists summarize some of the highly complex phenomena in readily understandable models such *as planetary boundaries* (Rockström et al., 2009) or a safe and just space for humanity (Raworth, 2013). Thus, it is not required for individual or collective actors to understand the fundamental physical or biochemical details of the atmosphere or ecosystems. But it is necessary to acknowledge the definite character of the boundary and the severity of the reaction, that overshooting it for decades has; and the effects on us humans. On some more, on some less.

Philosophers argue that human involvement in the existence of these phenomena complicates resolutions to these matters. We are entangled in the causes of the problems, without a central authority or a neatly composed arrangement to resolutely change course. This creates extraordinary obstacle for objectivity regarding the phenomena, the politics addressing them and challenges science in their understanding of active human agency (Latour, 2014). Yet, the planetary boundaries exist, and so does human agency.

We did have a really good run in the Holocene! The achievements of humankind over the last 10,000 years inspire the deepest feelings of awe and humility in me. With Schiller (n.d.), I am a citizen of this time, recognizing how the enlightenment and the industrial revolutions have facilitated the social and material progress, that many enjoy today. The utility of science! I am a citizen of this time, recognizing the *scientific* evidence, that human prosperity and wellbeing are not unconditional; not even here, for us and for our children. Thank you, fellow humans, who made me be here and do this. We might still make it!!!

Abstract

This study explains the emergence of different sustainability governance arrangements (SGAs) through organizational choice in public administrations for the implementation of the 2030 agenda. SGAs address a gap in the research on sustainability governance (SG) by focusing on interactions between departments and refer to specific challenges of public administrations with sustainable development (SD) due to their departmental organization principle. Based on a qualitative research design, two case studies present findings for Swiss cantonal administrations and their internal governance. The results highlight the role of sustainability offices (SO) and goal ambiguity as a problem of organizational choice, the 2030 agenda and steering for SD. Furthermore, the study discusses the 2030 agenda as a transformation of SG, by comparing its empirical findings to problems and concepts of steering for SD in the literature.

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List of Abbreviations

AFP   Task and financial planning (Aufgaben- und Finanzplanung)

ELB   Cantonal development model (Entwicklungsleitbild)

FSNE Sustainability office (Fachstelle Nachhaltige Entwicklung)

GCM   Garbage can model

ISG   Inter-departmental support group

MBO   Management by objectives

NHB   Report on sustainable development (Nachhaltigkeitsbericht)

NPM   new public management

OA   Organized anarchies

PAS   Political-administrative system

PD   Presidential department (Präsidialdepartement)

PGA   Practical governance arrangements

RR   Cantonal government (Regierungsrat)

SD   Sustainable development

SDG   Sustainable development goals

SG   Sustainability governance

SGA   Sustainability governance arrangement

SNE   Strategy for sustainable development (Strategie Nachhaltige Entwicklung)

SO   Sustainability office

UN   United Nations

1   The 2030 Agenda as a Sustainability Transformation

The goal of this study is to explain the emergence of different sustainability governance arrangements (SGA) for the implementation of the 2030 agenda for sustainable development (2030 agenda) in public administrations through organizational choice. Two case studies present findings for Swiss cantonal administrations regarding their internal governance. The study discusses these empirical findings in view of the literature on sustainability governance transformations and steering for sustainable development (Voß et al., 2007). In light of the trajectory of human impact on earth systems and the awareness of their limitations, the 2030 agenda represents an opportunity for such transformations to happen (Bowen et al., 2017; Rockström et al., 2009; Steffen et al., 2015; United Nations, 2015).

The 2030 agenda is a new governance approach to address the challenges of sustainable development (SD) and is built around goal setting on global scale. The commitments of all United Nations (UN) member states to achieve the sustainable development goals (SDG) by 2030 is based on an explicit vision and a specific framework, that is universal, integrated and transformative. It is an approach of global governance, that leaves national governments considerable leeway on how to implement the 2030 agenda (Biermann et al., 2017).

More than 5 years after the adoption by the UN general assembly, questions about the implementation at the national, sub-national and local levels persist. The universal approach of the 2030 agenda suggests that this translation comes with a variety of approaches and outcomes. Previous research has established that governance arrangements in public administrations play an important role for SD and thus also for the implementation of the 2030 agenda. (Bornemann & Christen, 2019a, 2019b). There is a knowledge gap regarding the reactions in these organizations, which are facing a new opportunity for a transformation of sustainability governance (SG).

This study aims to contribute to closing this research gap and hence addresses the question: *How does organizational choice explain the emergence of different sustainability governance arrangements?* As an exemplary application of organizational choice in SGAs, this study examines the implementation of the 2030 agenda in Swiss cantonal administrations. The discussion of the findings contributes to the broader questions of how SG can facilitate transformations towards SD.

The next section reviews the literature on SG regarding the 2030 agenda and SG in in public administrations as well as the transformation of SG. Section 3 presents the theoretical foundations of organizational choice for the study and develops the research framework. The description of the research design follows in Section 4. Section 5 presents two case studies, followed by their discussion and comparison in Section 6 and the study's conclusions in Section 7.

2 Sustainability Governance

Governance is a widely used concept in political science and an important lever for SD (Ayre & Callway, 2005; Messerli et al., 2019; Sager et al., 2018). A broad interpretation defines governance "(…) as institutionalized forms of coordination, that lead to collectively binding decisions and their implementation to realize public policies." (Sager et al., 2018, p. 232). Moreover, SG can be understood as governance with a particular orientation for a societal transformation towards sustainability (Bornemann & Christen, 2019a). Thus, from a governance perspective, the occurrence of this societal transformation ultimately manifests in decisions, which are a result of coordination in some institutionalized form. Subsection 2.4 presents more details on SG transformations, which are a larger framing for this study and its findings.

The focus of this study is the internal governance of public administrations, which refers to "(…) the mechanisms, with which they organize collective action within their own boundaries of responsibility." (Bornemann & Christen, 2019a, p. 159). This focus also applies to the SGAs and their purpose to inform about the transformation of SG within public administrations (Subsection 3.2).

2.1 Public Administrations and the 2030 Agenda

Public administrations are key actors in sustainability transformations (Bornemann & Christen, 2019b). Given the national governments' commitment to the 2030 agenda, public administrations are highly involved in its implementation. Three idiosyncrasies of the 2030 agenda and public administrations lead to particular challenges.

First, the 2030 agenda and the 17 SDGs follow the principle of indivisible and integrated goals (United Nations, 2015). This challenges the sector-oriented organizational structure of public administrations, i.e., their departmental or silo organization (Bornemann & Christen, 2019a, 2019b; Jacobs & Topuz, 2020; Messerli et al., 2019). This principle calls for the involvement of the different departments and their collaboration under the mutual goal framework of the SDGs.

Second, the universal character of the 2030 agenda requires interpretation by each public administration for their particular contexts to facilitate implementation with respect to the respective circumstances (Biermann et al., 2017). Thus, a notion of ambiguity with differences in framing of and attention to the 2030 agenda among these organizations is a more likely

expectation than straight-forward, coherent decision-making for the implementation everywhere.

Third, the 2030 agenda is designed as a transformative framework, that guides action and calls for changes in practices to address complex problems (Biermann et al., 2017; United Nations, 2015). With this aspiration, to change the ways how states address these complex problems, the 2030 agenda is also a concern for the internal governance of public administrations regarding SD. This is a further source of ambiguity for an organization that follows bureaucratic principles and thus relies on specialized departments with selective perceptions and established rules and precise procedures (Bornemann & Christen, 2019b).

These features of the 2030 agenda and public administrations are relevant for its implementation in these organizations. To implement the 2030 agenda, public administrations take decisions and deal with these challenges, reflecting how sustainability governance unfolds. The following section presents a specific approach to understand SG in public administrations in Swiss cantons and the results of two types.

2.2 Sustainability governance in Swiss cantonal administrations

At the national level in Switzerland the federal government pursues the implementation of the 2030 agenda through the strategy for sustainable development (SNE). Yet, the principle of member state implementation assigns many responsibilities and competences for the implementation of the 2030 agenda to cantonal governments and their administrations. More specifically, with the SNE the Federal Council request the integration of SD in the regular planning and steering process of cantons and municipalities. (Schweizerischer Bundesrat, 2021; Vatter, 2018).

Previous comparative research on how six cantonal administrations practice SG proposes four ideal types of *practical governance arrangements* (PGA). The distinguishing orientations of the four ideal types of PGAs are strategy-oriented, network-oriented, management-oriented and problem-solving. The authors specify that "PGAs refer to the totality of efforts to organize the collective action of a particular public administration towards sustainability." (Bornemann & Christen, 2019a, p. 161). These PGAs focus on practices of sustainability officers as sustainability-niche actors in public administrations, that promote SD. PGAs consider three dimensions, namely *politics, polity and policy*. The politics dimension is concerned with the political processes, i.e., relationships and interactions between actors. The polity dimension refers to institutional structures and policy captures contents, e.g., objectives and instruments

(Lange et al., 2013; Sager et al., 2018). Furthermore, they consider the dynamic interplay between conditions and activities in these dimensions from the perspective of key actors in public administrations, that engage in SG. Thus, PGAs so far only refer to the accounts of these sustainability-niche actors. For future research, the authors propose to explain the emergence of different SG arrangements, considering the dominant governance regime and the interactions between niche and established regime (Bornemann & Christen, 2019a).

Addressing this research gap is one goal of this master thesis, as explained in more detail in the following subsection. The notion, that a confluence of various conditions and activities governs organizational choice, is compatible with the basic idea of the garbage can model, that provides the theoretical foundation of this study (Subsection 3.1).

2.3 Sustainability Governance in the Implementation of the 2030 Agenda

The previous section refers to different ideal types of PGAs in cantonal administrations, that are based on the perception of sustainability-oriented niche actors. Including the perspective of further actors from other departments contributes to filling a research gap, providing a more comprehensive explanation how SG works and why different types emerge. Referring to different perspectives allows a focus on interactions between different actors and between the sustainability-niche actors and the dominant governance regime in a public administration. These interactions are relevant for the implementation of the 2030 agenda with its integrative and transformative character. The integrative character reflects the broad engagement of different actors in public administrations, i.e., different departments (Subsection 2.1). The transformative character refers to an impulse for a reorientation of internal governance towards sustainability. The two PGAs in the following subsections are particularly interesting, due to their high transformative potential towards SD (Bornemann & Christen, 2019b).

The goal of this study is to explain the emergence of different SGAs in public administrations. This focus is different from the PGAs, but they provide a good starting point in the literature and for the case selection. The alternative perspective of the PGAs, based on the literature and possibly related findings in the this study, might also contribute to the analysis and discussion.

2.3.1 Selection of SG Arrangements for the Purpose of this Study

The PGAs refer to SD more generally, but there are close ties between the 2030 agenda and the concept of SD and SG respectively (Bornemann & Christen, 2019a; United Nations, 2015). This study examines organizational choice for the implementation of the 2030 agenda in Swiss cantonal administrations based on selected cases with PGAs that have a high potential for a

transformation towards SD. The explanation of this selection and of the selected SG arrangements follows below.

An interpretation of the four ideal types of PGAs in view of a transformation towards SD, suggests different potentials and transformation patterns (Bornemann & Christen, 2019b). According to Dryzek's (2013) widely regarded classification of environmental discourses, sustainability qualifies as reformist and imaginative, i.e. as non-radical change, redefining problems, opportunities and their interrelations in a political economy. While all ideal types of PGAs are in line with the reformist dimension, only the strategy-oriented and network-oriented ideal types match the imaginative dimension and thus qualify as an arrangement for a governance transformation towards *sustainability* from this environmental discourse perspective (Bornemann & Christen, 2019b; Dryzek, 2013). A more detailed presentation of these two types follows below, explaining the particular reformist and imaginative qualities.

2.3.2 The Strategy-oriented Type of Sustainability Governance

The strategy-oriented type of SG creates, shapes, and exploits opportunities to advance SD through the active involvement of the sustainability offices (SO) in the politics dimension. This office is positioned at the top of the hierarchy and close to the power center, e.g., in the presidential department or the president's office. This position provides access to key actors and allows for the active engagement in political and administrative decision-making. Moreover, its position endows the office with political legitimacy, that can be used to mobilize support beyond a constitutional or legal foundation for SD. (Bornemann & Christen, 2019a, 2019b).

Establishing political support is an important ability for an *imaginative* reorientation towards SD and working with existing power constellations as part of the political game is not uncommon for the niche actors in this type of SG. The use of overarching ideas towards sustainability, that go beyond departmental orientations and new ways of thinking contribute to the imaginative profile as well (Bornemann & Christen, 2019a, 2019b).

The *reformist* profile manifests in the acceptance and use of the existing logics of policy and politics in the administrative system and by the goal to integrate the transformation in an incremental adaptation. Thus, the strategy-oriented type engages in changing the conditions in the polity and policy dimensions as well, much as the management-oriented and problem-solving types. Yet, for the potential of a sustainability transformation, i.e. reformist and imaginative, the distinguishing features are the activities in the politics dimension (Bornemann & Christen, 2019b; Dryzek, 2013).

2.3.3 The Network-oriented Type of Sustainability Governance

The network-oriented type of SG is focused on establishing a supportive network for SD by creating collaborative relationships within and outside the public administration. The position of the SO is farther away from the center of power in a public administration and may even be outsourced to other organizations. This comes with more autonomy, i.e., less reliance on the foundations of SD in the state constitution or formal policies, but the mandates may also be subject to greater changes. Sustainability officers provide support to offices in the administration and various other collaborators, with whom they engage in programs to promote sustainability, that are flexible and limited in time. Organizing collaborations and networks, that create support for SD, are key practices for the network-oriented SG type (Bornemann & Christen, 2019a, 2019b).

As discussed above, an imaginative and reformist profile qualifies a governance arrangement as sustainability-oriented (Dryzek, 2013). An *imaginative* profile of network-oriented sustainability-niche actors shows in how they focus on opportunities, rather than only addressing problems. They work with fundamental ideas how governance may be transformed towards sustainability, such as transversality in SD and visions to promote social innovations. Furthermore, they embrace governance innovations, e.g., experimental forms of governance or bottom-up participation. Finally, this governance type shows a reflexive understanding of governance, that implies a continued self-transformation rather than a focus on solving problems (Bornemann & Christen, 2019a, 2019b).

The *reformist* mode of transformation in network-oriented SG manifests in the project-based approach, that appreciates changes in small and incremental steps. Projects and campaigns can also be used to mobilize public support as a political resource that create external pressure for the transformation towards sustainability (Bornemann & Christen, 2019a, 2019b).

2.4 Sustainability Governance Transformations

There are obvious contradictions between human activities in industrialized societies, represented e.g., by the trajectories of the great acceleration, and the limitations of planetary boundaries (Rockström et al., 2009; Steffen et al., 2015). Sustainability transformations and the role of governance receive more and more attention in research and the discourses about policy (Patterson et al., 2017). SD is challenging because it embraces the coupling of societal and ecological systems and their dynamics globally and in the long term (Voß et al., 2007).

Meadowcroft (2007) maintains that "First, there is little doubt, that sustainable development represents an ambitious agenda for societal change." (Meadowcroft, 2007, p. 302).

Despite these intricacies, the 2030 agenda shows that the international governance regime can facilitate agreement among member states and generate impulses for action. The SDGs may play one important part in the governance for transformations towards deep changes in society in the Anthropocene (Patterson et al., 2017). Bowen et al. (2017) recognize that "at the same time an unprecedented international policy window has opened up for addressing global sustainability and human development issues through the United Nations' Agenda 2030 (…)" (Bowen et al., 2017, p. 90).

The 2030 agenda provides an opportunity for a reorientation of governance towards SD, that concerns all levels of governance (Biermann et al., 2017). This opportunity for a SG transformation through the 2030 agenda is contingent on the translation from the global to the national and the sub-national levels of governance. Biermann et al. (2017) add this to a new research agenda, specifying that "Second, the new approach of governance through goals poses important new research questions regarding the *embedding and integration of goals at global level* into existing governance arrangements (…)" (Biermann et al., 2017, p. 29). Explicitly, the translation of global concepts for SD to the national level is a topic in the research of Häyhä et al. (2016). The authors consider the 2030 agenda as a facilitating context for the governance of the planetary boundaries (Häyhä et al., 2016).

The utility of this research project is the analysis of such translations, as organizational phenomena in public administrations. The results are SGAs, that provide insights about the transformation of the internal governance of public administrations towards SD through the 2030 agenda. Patterson et al. (2017) illustrate that transformations are complex and diverse processes that can involve several systems over a long time frame and that different conceptual approaches to capture them exist. A valued distinctions, that the authors offer, clarifies the subject of the transformation studied here, namely "(…) transformations in governance i.e., transformative change in governance regimes." (Patterson et al., 2017, p. 4). The transitions approach is one of several concepts for transformations and includes the multi-level perspective, that considers interactions between the levels niche, regime and landscape (Patterson et al., 2017). This refers to the research gap in subsection 2.2 and addresses the larger question if the translation of the 2030 agenda leads to change in the existing governance regime towards SD.

The transitions approach considers steering and the development of a concrete transition agenda as tactical activities in organizations (Loorbach, 2010; Patterson et al., 2017). Considering the complexity of transformations, this steering perspective is a simplified but meaningful approach to discuss the transformation of internal governance in public administrations towards SD.

2.4.1 Steering for Sustainable Development

Meadowcroft (2007) argues for the intervention of governments and other actors to orient social institutions towards desirable goals. He maintains that "Second, the idea of *governance for sustainable development embodies a specific 'steering logic'.*" (Meadowcroft, 2007, p. 302). Voß et al. (2007) elaborate how SG challenges the idea of steering. They work with a definition of steering as "(…) 'a purposive attempt to bring a system from one state to another by exerting influence on its dynamics of development'." (Voß et al., 2007, p. 195). The translation of the 2030 agenda to cantonal public administrations is an opportunity for the sustainability-oriented niche actor to influence the system of SG based on this external impulse. Studying organizational choice for the implementation of the 2030 agenda and the emerging SGAs allows capturing the attempts and dynamics of change in the system.

According to Voß et al. (2007), the governance of SD creates specific challenges for steering. These challenges are goal ambivalence, the uncertainty of complex interactions and distributed power, which are all relevant for the 2030 agenda (cf. Sub-section 2.1). The authors present different approaches to steering, that address these challenges. For the former problem, they refer to the concepts of new public management (NPM) and management by objectives (MBO). Moreover, the creation of shared visions addresses problems of goals by supporting planning, coordination of heterogenous actors and the motivation for participation. These concepts help with the steering problem of ambivalent goals for SD. Regarding steering as a power problem, negotiations in networks provide opportunities to facilitate collective action through coordination. Negotiations include approaches of arguing, that aim at reaching understanding and agreement in a network, and bargaining, that focusses on the distribution of costs and benefits between actors. Negotiations in networks are a concept of steering that address both the problems of uncertainty of knowledge and the distribution of power. It offers strategies to address these problems (Voß et al., 2007).

The exact difference in the meaning of the words ambivalence and ambiguity is not relevant for their application in the context of this study. This assessment refers to the definitions of the terms in the APA dictionary (American Psychological Association, n.d.). In the following the text refers to ambiguity.

2.4.2 Internal Governance and Management Tools

Public administrations apply various processes of planning and management, including strategic management (Höglund et al., 2018; Rainey, 2009; Rosenberg Hansen & Ferlie, 2016). These processes and their outcomes relate to the internal governance, i.e., the mechanisms to organizes collective action in a public administration. The outcomes include different tools such as strategies, plans, budgets, reports, etc. They are results of decisions in the organization and thus refer to the processes that produce decisions, i.e., organizational choice. The concepts of steering for SD presented above include NPM and MBO, thus linking management concepts to SD.

This study refers to this relation and to the integration of SD in management tools as a transformation of SG. Zeemering (2018) discusses a similar approach for sustainability management with a focus on strategy in local governments. An empirical study by Mazzara et al. (2010) explores SD as a part of strategic planning in Italian local governements and Leuenberger & Wakin (2007) discuss the contribution of SD planning in public administrations regarding justice, equity and participation.

3 Theory and Analytical Framework

This section presents the theoretical foundations of this study and the analytical framework for the preparation of the case studies presented in Section 5. The following Subsection 3.1 introduces the theoretical cornerstones of the garbage can model (GCM) for organizational choice. Thereafter, Subsection 3.2 explains the analytical framework, that is derived from the theory to answer the research question.

3.1 The Garbage Can Model of Organizational Choice

The intention behind the GCM is to explain organizational behavior in *organized anarchies* (OA). In OAs, goal ambiguity and variations in members' attention to decisions challenge the view of organizations as rational, problem solving entities. Against this background, the central assumption of the GCM is that decisions in organizations are not necessarily taken in a controlled and calculated process. In OAs, actors do not have a consistent set of preferences, which may instead be contradicting and subject to change. Furthermore, their coherent assessments of factual relationships are not taken for granted. Finally, participation in decision-making is fluid, so that organization members constantly reassess to what they devote their limited time and effort. To explain how decisions emerge in this setting, the GCM considers different, rather independent streams and their interactions including problems, solutions, actors and choice opportunities. Thus, decisions are a form of behavior in organizations, that can be understood through the interpretation of the confluence of the streams (Cohen et al., 1972; Sager et al., 2018). The following paragraph gives an overview of the model's original streams.

(1.) The problems stream comprises the issues with significance to people inside and outside the organization, that require attention. (2.) The solutions stream is a collection of possible solutions, in the sense of answers, that search for questions or a problem that they solve. (3.) The participants stream considers who takes part in the decision process and how participation changes. Variations in participation are not assumed to be dependent on the content of the decision but rather on what other commitments and responsibilities actors have. (4.) The stream of choice opportunities comprises the occasions that prompt decision-making in an organization. These are occurring frequently, e.g. if contracts are closed or employees are hired, since organizations depend on decisions to function (Cohen et al., 1972; Sager et al., 2018).

According to the GCM, decisions are an interpretation of the coupling of these streams. Thus, the intersections of streams produce an outcome at a given point in time. The underlying assumption of the GCM is that this outcome may well be more determined by chance than by

any rational logic of organizational behavior or design (Cohen et al., 1972; Sager & Rielle, 2013). The importance of the effect of temporal ordering has been acknowledged in further research on the GCM as well (Bendor et al., 2001).

Goal ambiguity is one of the key features of OAs. It is not an uncommon phenomenon in organizations to take decisions without consistent, shared goals. Theoretically applicable behavior, such as explicit bargaining, does always what happens in organizations (Cohen et al., 1972). Therefore, goal ambiguity plays a role in theory, but also for steering for SD (Voß et al., 2007) and as a feature of the 2030 agenda (Sub-section 2.1).

Finally, several caveats to the GCM deserve recognition here. The model's explanation only refers to process and structure on the macro level of the organization, without considering individual choice at all. Moreover, the independence of the streams is problematic, especially between problems and solutions and between the former two and participants. In a general understanding, solutions are related to problems per definition and participants act as carriers of problems and solutions in organizations. Another caveat is that the GCM does not adequately account for the effects of structure in organizations and its instrumental use to influence organization behavior. This limits the model to explain short-term dynamics and misses out on the possibilities that structural adjustments might offer, especially to address the difficulties in OAs. Furthermore, the GCM fails to recognize how structure serves superiors to control subordinates and to participate through them in decision arenas. Finally, the qualification of OAs in the original model is ambiguous. It is not clear if an OA requires all the criteria to apply or only some (Bendor et al., 2001).

3.2   Analytical Framework

The GCM is the basis for the analytical framework to explain organizational choice for the implementation of the 2030 agenda in cantonal administrations. Following the GCM's assumptions of organizations as OAs, i.e. not to expect that organizations take decisions in highly defined processes with exact blue prints, the goal is to strike a balance between consistency in the research focus and an openness to capture case-specific circumstances and idiosyncrasies (Pflüger et al., 2016). *Goal ambiguity* concerns organized anarchies as well as SD and the 2030 agenda (Sub-section 2.1). Thus, goal ambiguity does likely matter for the way how public administration address the resulting difficulties for SG and the implementation of the agenda 2030.

The approach to answer the research question rests on the reconstruction of the streams and their interactions for each case. This provides the basis for an interpretation of organizational choice in cantonal administrations regarding the 2030 agenda. This explains the emergence of different SGAs for the implementation of the 2030 agenda.

3.2.1 Reconstruction of the streams

The different streams are central to the analytical framework, since the GCM understands decisions as the outcome or the interpretation of the intersection of the streams (Sub-section 3.1). To reconstruct the streams this study draws on interviews as the key empirical data and its analysis according to the research design (Section 4). The selection of streams draws from the GCM as well as further extensions in the literature (Cohen et al., 1972; Sager & Rielle, 2013). This allows to maintain the essential elements of the garbage can model and at the same time account for the research context and the broader interest of this research project, i.e., the transformation of SG in public administrations. The clustering of the five independent streams in the categories policy, polity and politics reflects this interest in SG (Lange et al., 2013). This structure also provides a link to the literature of previous research on the topic (Section 2).

The policy cluster of streams includes the solutions stream and the problems stream. The solutions stream establishes if and how employees in public administrations view the 2030 agenda as a solution. This concerns their understanding of the 2030 agenda as a contribution to solve problems or to advance towards a goal. Yet, the GCM recognizes all kinds of solutions, that are searching for issues to solve (Cohen et al., 1972).

The problems stream comprises issues that are of concern to people inside and outside of an organization (Cohen et al., 1972). With its very broad scope the 2030 agenda is generally open to many concerns that can be associated with its implementation. How employees and departments in public administrations relate problems to the 2030 agenda captures their interpretation and their ideas for the role of the 2030 agenda in the organization. This offers insights about the related organizational choices and the sustainability governance arrangements.

The polity cluster of streams includes the choice opportunity stream and the institutional stream. The choice opportunity stream comprises the occasions that prompt decision-making (Cohen et al., 1972). Regarding the 2030 agenda this stream refers to the fora, that decide over its implementation such as inter-departmental coordination groups, as well as other meetings, that touch upon the topic. These decision arenas provide particular framings to the issue and shape

the circumstances under which decisions are taken. As an example, the existence of a working group for a certain subject, that is related to the agenda 2030 and the organization of the group is likely to make a difference to this stream and to the decisions taken.

The institutional stream refers to formal and informal structures of organizations, including rules, identities and the distribution of power (Sager & Rielle, 2013). An important institutional feature for this study is the degree of centralization, referring to a power center of few decision makers, that control the implementation (Rogers, 1995). Vice versa, a more decentralized approach involves more actors in decision-making processes, possibly also from less powerful positions.

The participants stream is the only stream in the politics cluster and captures the actors, that are involved in making decisions. Thus, the stream includes the assessments of the 2030 agenda through organization members in various departments. This also shows if participants are promoters or veto-players in its implementation. Given the broad scope of the 2030 agenda, participation from most departments if not all, is expected. This is a criterion for the selection of data sources and consistent with the research interest regarding the interactions within a governance regime. As a property of OA, participation is fluid, so that the selection of who attends to which issues is subject to change (Cohen et al., 1972).

3.2.2   Intersection of the streams and analysis

As explained in subsection 3.1, the coupling of the streams holds significant explanatory power over organizational choice. The following lead questions guide the examination of the intersections of streams:

- Are there any dominant streams regarding organizational choice?
- What is the content over which streams intersect?
- How does this intersection of streams and its content determine organizational choice?

The analysis of the intersections of the streams is an interpretation of their content, that establishes an understanding of organizational choice regarding the implementation of the 2030 agenda in the public administration. This study focusses on the internal governance of public administrations (Section 2).

The SGA is inspired by the PGA and maintains its focus on governance. Yet, it is different in that it does not focus exclusively on a single actor and it does not apply the *practice perspective* (Bornemann & Christen, 2019a). Instead, the SGA has a broader organizational focus that

includes several actors, i.e., departments with their differences and interactions. This aims at a better understanding of the interrelations and dynamics within the organization and the reaction of the established governance regime to a new framework for SD, that the sustainability-niche actor promotes. Thus, the SGA is an open framework, that captures the role of different actors and their arrangement in view of a transformation of internal governance towards SD. In doing so, it orients at the features of the 2030 agenda and public administration (Subsection 2.1). Furthermore, it refers to the literature on steering for SD and its link to transformations by highlighting the attempts to influence the dynamics of developments (Subsection 2.4.1).

This study presumes that the 2030 agenda is an opportunity for a reorientation of the internal governance of public administrations towards SD. As a transformative framework, this is one of the inherent properties of the 2030 agenda (Subsection 2.1). Before this background and its presumed role for a transformation of internal governance towards SD, this study expects implementation of the 2030 agenda in the cantons. A further expectation is that the SOs, as the sustainability-niche actors, promote the 2003 agenda. Furthermore, they are likely to play different roles in its implementation, given their different approaches to SG (Subsection 2.3). This expectation extends specifically to their interactions with other departments and the dominant governance regime, which is the focus of the SGA, as explained above.

4   Research Design

This study applies a qualitative research design to present two case studies. A document analysis and a qualitative content analysis support the findings in the case studies. The two purposefully selected cases represent two promising PGAs with a high potential for a sustainability transformation in German-speaking Swiss cantons (Subsection 2.3.1). The implementation of the 2030 agenda is a concrete opportunity to examine organizational choice for a global SD framework and to explain the emergence of SGAs for this opportunity.

4.1   General approach and data collection

The qualitative research design aims at a detailed assessment of the cases, as case studies "(…) allow both the analysis of complex structural relations and processes within and between organizations, as well as the integration of many agents' perspectives and context factors." (Pflüger et al., 2016, p. 2). Hence, case studies are a suitable method in view of the theoretical model of this study, i.e., GCM of organizational choice and the complex analytical configuration within the SGAs (Subsection 3.2.2). Furthermore, the integration of many perspectives resonates with a research gap of PGAs, regarding the interactions between sustainability-niche actors and the dominant governance regime (Subsection 2.3).

The combination of several methods for data acquisition and analysis is a common feature of case study research (Pflüger et al., 2016).This study draws on two sources of data, i.e., relevant documents published by the respective cantonal administrations and semi-structured interviews with employees of these organizations. The document analysis establishes a general understanding of the approach and progress for the implementation of the 2030 agenda, based on official, cantonal publications. Following a distinction by Prior (2008), the focus is predominantly on the content of the documents and not on their use and function, considering them a resource rather than a topic.

The interviews are the key source of data for the case studies and the analysis of organizational choice. The selection of interviewees considers the involvement that cantonal departments have in the implementation of the 2030 agenda as well as specifically relevant offices, e.g., cantonal SOs. Practically, it is the interviewees, who point out further organization members, that are involved or relevant for this study. One case comes close to the intended optimum of one interview per department (five out of six). For the other case, less than half the departments are involved and were available for interviews (three out of seven). Due to the public health situation at the time of data collection, all interviews took place as online video calls. The

language for the interviews and the interview summaries is German, according to the language of communication in the organizations.

The interviews were recorded as video and audio files and compiled into written summaries, that paraphrase the most important statements and information. Following the interview guideline, the summary text is divided into segments according to the analytical categories of this study, i.e., the streams as per the analytical framework (Subsection 3.2.). The purpose of summarizing the interviews is to reduce and structure the data according to the analytical framework. This allows the utilization of the data for the reconstruction of the streams and in the analysis to answer the research question in each case study (Ametowobla et al., 2017).

The streams also provide a red thread between various sections and documents alongside the topic that they cover. The reader can thus navigate effectively within a stream from the case study to the relevant background information in the analytical framework and to the empirical data in the interview summaries. For the summaries this means that information is not documented in a strictly chronological order, i.e., the order that statements were made in the original interview. Instead, later statements of the interview may rarely appear in earlier streams if they are relevant for this topic. The time stamp in the interview summaries reveals this.

4.2   Analytical approach and structure of the case studies

The analysis in this study relies on two methods and sources of data as explained in the previous section. The case studies first present the document analysis, that describes if and how the 2030 agenda appears in the content of relevant documents. The reconstruction of the streams for the respective case follows, based on the interview data. The analysis of the intersections of the streams is the next part of the case studies. It examines the content of the streams in their intersections to comprehend organizational choice for the implementation of the 2030 agenda. To do so, it refers to different paragraphs of the reconstructed streams and presents relevant, preliminary findings. At the end, a conclusion summarizes the findings as an interpretation of organizational choice. Finally, the case studies' last subsections elaborate how these findings on organizational choice relate to the assumed PGA of the case (Subsection 2.3.) and explain how and why a particular SGA in cantonal administrations emerges for the implementation of the 2030 agenda. This answers the research question: How does organizational choice explain the emergence of different sustainability governance arrangements for the implementation of the 2030 agenda?

The comparison of the cases (Subsection 6.1) discusses the results of the analysis of organizational choice and the SGAs among the two cases. The further discussion (Subsection 6.2) refers these results to the literature about SG transformations (Subsection 2.4).

This study has an intra-organizational focus on the different departments in cantonal administrations. The organizational processes and behavior are most probably very specific to a particular administration, so that a generalization of results is neither possible nor intended. Instead, the comparison of the two case studies in the discussion (Section 6.1) provides further insights on a limited level of abstraction. This also applies to the interest in the potential of how the different SGAs may facilitate a transformation of SG in the interaction between the dominant governance regime and the sustainability-niche actor.

5   Case Studies

This section presents the two case studies, as the result of the analysis. The research design explains their structure and the analytical procedure (Section 4).

5.1   Case 1: Canton Aargau

5.1.1   Document Analysis

The *fifth report on sustainable development in the canton Aargau or Nachhaltigkeitsbericht* (NHB) is the main document addressing the implementation of the 2030 agenda in the canton Aargau (Regierungsrat des Kantons Aargau, 2020). In the imprint, it acknowledges the 2030 agenda as the reference framework for SD in Switzerland and explicitly claims "(…) to contribute to the implementation of the 2030 agenda." (Regierungsrat des Kantons Aargau, 2020, p. 3).

The report presents each of the 17 SDGs with a contextualized description of the most important issues in the canton and a visualization of the interactions with other SDGs. Furthermore, it shows a selection of targets for each SDG, that have been adapted to Switzerland on the national level. Each SDG is tied to one or more cantonal topics, that work as monitoring indicators. This reporting on the 32 topics is at the heart of the report and covers 80 pages, thus almost doubling its volume from the previous report in 2016. Each section of the topics explains the goal direction, indicators, current state and challenges. Statistics show the short- and long-term developments of the indicators and a comparison to the Swiss average (Regierungsrat des Kantons Aargau, 2016, 2020).

The extent and level of detail of the report suggest a dedicated engagement with the local implementation of the 2030 agenda in the canton of Aargau. The 32 topics focus on policy issues, such as goals and challenges with some consideration of the inherent interactions between SDGs and the respective policy fields. In a more general way, the document expresses political support of the executive branch for the implementation of the 2030 agenda, given the imprint and the foreword by the head of the executive. It also refers to the large number of collaborators from the different sections of the administration and the organizational arrangement, including an inter-departmental support group (ISG), for the preparation of the report. These politics and polity related subjects are understandably more vague, given the purpose and focus of the report on the policy aspects of the 2030 agenda in the canton. The connection of the SDGs to the pre-existing topics suggests continuity with existing approaches in the administration, at least in the reporting on sustainability.

Another important document is the *cantonal development model 2021–2030* or *Entwicklungsleitbild* (ELB)*,* which shows some attention to SD and the 2030 agenda (Regierungsrat des Kantons Aargau, 2021). It combines a vision, strategies, guiding principles and a financial long-term outlook to outline the developments of the canton from 2021 to 2030. The imprint holds the same reference to the 2030 agenda described for the imprint above. Beyond that, it does not mention the 2030 agenda. The guiding principles for the implementation of the strategies most clearly express an orientation towards SD, which is characterized as "(…) equivalently considering the three dimensions economy, society and environment." (Regierungsrat des Kantons Aargau, 2021, p. 21). This understanding emphasizes an important aspect of SD, but it is not as comprehensive as in the 2030 agenda or the federal strategy for SD (Schweizerischer Bundesrat, 2021; United Nations, 2015). Even without explicit references, the different strategies in the document clearly address policy issues, that are in the scope of the 2030 agenda, such as education, healthcare or climate change. Beyond this overlap, the 2030 agenda does not play any role in the ELB.

5.1.2 Reconstruction of Streams

This subsection explains the different streams, which are a reconstruction from the interviews, that are documented in the interview summaries (Appendices B–F). The analytical framework provides a general explanation of each stream (Subsection 3.2.1.).

5.1.2.1 *Policy cluster - Solutions stream*

Employees of the canton Aargau's administration view the 2030 agenda as a solution since it places the local activities in a larger context. It embeds the cantonal contributions to the 2030 agenda into the federal and finally the global process of the 2030 agenda (Appendix B; Appendix C). As a "(…) comprehensive check list (…)" (Appendix C, p.61), it prompts reflection about what is relevant and what is not. Indirectly, this extends into sectoral goals in policy fields or to federal or international law, that the 2030 agenda concerns (Appendix C). The global nature of the framework provides an international reference for the monitoring of SD and to check if the canton is on track (Appendix D). Furthermore, the NHB highlights especially important issues in a policy field in black and white and helps to underline the meaning of fundamental public services, such as education. This facilitates a better understanding in other administrative branches and reveals more general interfaces with other departments across policy fields (Appendix F).

The SDGs are an appreciated visual support for communication purposes (Appendix B). A further communication-related value of the 2030 agenda is creating a sense of working together

to achieve global goals (Appendix C), which increases the support for those goals (Appendix C). The 2030 agenda does not explicitly initiate projects, that aim at achieving an SDG. The idea is rather to link new projects to an SDG and tag them as a contribution towards it (Appendix E).

Regarding SD, the 2030 agenda helps by providing a structure and an "(…) integrative view (…)" (Appendix B, p.56). This is a change from the established three dimensions of SD, i.e., economy, society and the environment, establishing a new system to generate action (Appendix B). Establishing the NHB on the basis of this system has raised certain issues and trade-offs once more, e.g., between agriculture and environmental protection. Thus, it was necessary to find agreements and in the best case they were based on the assessment of that party, which had the better arguments (Appendix C).

5.1.2.2 Policy cluster - Problems stream

The issues, that employees from the cantonal administration connect with the 2030 agenda, are rarely new ones but rather "(…) evergreens (…)" (Appendix C, p.61). The 2030 agenda has not revealed completely new things, as departments know the problems and how well they address them (Appendix D). Moreover, many goals have already been achieved. Wherever this is not the case, other frameworks from the subject-specific Swiss context are more relevant than the 2030 agenda (Appendix F). The political actors usually focus on problems, that are more salient and that immediately concern the competencies of the canton. This usually means acute pressure from a problem or an event, e.g., regarding the integration of migrants (Appendix C).

One department states that the connection between problems and the 2030 agenda with the SDGs would be valuable. In agricultural policy, SD points out many trade-offs. Agricultural practices can be a cause of problems, e.g., through pesticide use, but many projects are underway to address them. These problems are highly political, especially in the recent political landscape, where agricultural policy was under pressure by two popular referenda (Appendix E). Several other departments confirm the challenges with agricultural policy actors in the participants stream below.

The connection between important issues and the SDGs is also a significant effort for the SO. The NHB continues with the administration's existing system of 32 topics for SD, as data for reporting is available (cf. Subsection 5.1.1.). The report links each topic with the respective, relevant SDGs. Finally, the report's conclusion identifies five key challenges in the canton

(Appendix B). A different department confirms how this analysis highlights existing challenges that inform the long-term planning process (Appendix D).

5.1.2.3 Polity cluster - Choice opportunity stream

As the highest executive decision-making body, the Regierungsrat (RR) plays a key role in major choice opportunities for the implementation of the 2030 agenda, especially regarding the NHB and the ELB (Appendix B). The primary initiative for the implementation of the 2030 agenda is credited to the SO by connecting it to the NHB (Appendix E). This follows established procedure based on the field of competence of the department and the responsibility of the SO more specifically (Appendix D). Based on the SO's proposal, the RR has accepted the choice to apply the 2030 agenda to the reporting on SD in the NHB (Appendix D; Appendix E). This is a defining step to pursue the implementation of the 2030 agenda with a clear mandate under the authority of a government decision (Appendix C; Appendix D).

The findings of the NHB are considered in the preparation of the ELB, which is a key document and strategic tool for the government and the administration. It defines the priorities for the next legislative period and for the mid- and long-term perspective, which is currently from 2021 to 2030. Despite this chronological match, the RR did not choose to adopt the 2030 agenda as a leitmotif in the ELB, which was and remains the SO's goal (Appendix B; Appendix D; Appendix E). The ELB is a significant lever, e.g., as a basis for financial planning, but there is also an understanding not to ask too much of people too soon and to proceed incrementally, one step at a time (Appendix B). Thus, the reference to the 2030 agenda in the ELB remains rather vague and implicit. The 2030 agenda will not directly lead to projects but the NHB strengthens the justification for action in the fields of SD or for the SDGs (Appendix E).

Despite the above, the state chancellery maintains that, the content of the ELB reflects the 2030 agenda implicitly. This department has the lead in the preparation of the ELB and points to the content in the different policy fields, that shows contributions to the SDGs without specifically naming them. Furthermore, there are several other important aspects that guide the preparation of the ELB, e.g., government decisions, the financial long-term perspective or specific studies regarding the consequences of the corona-pandemic (Appendix D). The state chancellery essentially argues to continue with established procedure, in line with the pragmatic culture in the administration. Implementing the 2030 agenda should follow the regular cycles for planning and accountability in the public administration, rather than creating new tools, processes and decisions. The respective challenges identified in the NHB will be transferred into projects, that are included in the task and financial planning, or Aufgaben- und Finanzplanung (AFP), which

the RR prepares and parliament endorses. There are many other matters, that also need to be considered. [Appendix D].

The preparation of the NHB based on the 2030 agenda also concerned an ISG. Major decisions were not taken by this group and political considerations were usually limited to details in wording. The task of its members was the subject-specific coordination with the operative sections of their departments and rather closely limited to the preparation of the NHB. The framework of the 2030 agenda has constructively facilitated the work on the report, compared to the previous edition (Appendix B; Appendix F). Occasionally the ISG discussed particular questions in a policy field, that usually led to finding an agreement amongst themselves, as the administration generally shows a rather limited divergence in ideological positions. Otherwise, this was relayed to the RR, that ultimately decided on the way to go. These settlements were not the key mandate of the group. It was rather to apply and refine the methodology of the 2030 agenda for the NHB and to include the data from the respective experts (Appendix C).

5.1.2.4 Polity cluster - Institutional stream

All major decisions for the implementation of the 2030 agenda have to go through the RR, who can ultimately endorse it (Appendix B). This includes the reorientation of the NHB towards the 2030 agenda or the strategic directions pursued in the ELB, which is a major tool for the RR to govern the administration and provide a reference for orientation (Appendix E). The proposals for these processes are prepared in the departments with the respective area of competence, i.e., the NHB in the SO and the ELB in the state chancellery. The government resolves any conflicts of interest, that cannot be settled in the administration (Appendix D).

In a general sense, one department adds that the administration pursues reliability and responds to change in a less dynamic manner. Change is facilitated by decision makers and political actors, through the legal framework. For the administration, as a part of the executive branch, small changes may be feasible through executive orders, issued by the government, but major changes require the reform of legislation, which involves the legislative branch as well (Appendix F).

5.1.2.5 Politics cluster - Participants stream

The implementation of the 2030 agenda involves the different departments of the cantonal administration. This is a general rule in strategic matters and there is an established culture of interdepartmental cooperation. The existing framework of competences restricts project teams, especially regarding financial authority (Appendix D). The different departments respect their

specific fields of competence and are aware of the benefits from mutual non-interference if conflicts occur (Appendix C). In the case at hand the ISG includes employees from the general secretariats of all departments, who work in coordination roles. They secured a common approach to the NHB and overviewed the contributions from the respective subject experts from their department (Appendix C; Appendix E; Appendix F). Thus, these employees are not executive decision makers, but they also provide leadership support at the political-administrative interface. In case of conflicting goals in complex matters, this gives them some discretion to influence the focus of decisions by steering or emphasizing information. Especially where there is public exposure, e.g., in parliament, commissions or press releases, the angle on conflicting goals is not the disagreement, but the opportunity for the most positive presentation of the political work to the public (Appendix F). In other words, a representation-oriented framing of problems and solutions exists among political-administrative actors, which aims at realizing planned projects and making these outputs visible to the public. In comparison, overarching frameworks, such as the 2030 agenda, are more abstract and the role they play is rather ambiguous, e.g., by providing information and controlling on shortcomings in a policy field. A general discussion about what this role could be for the 2030 agenda was not the focus of the ISG. It worked on practical questions at the expense of the middle- and long-term perspective (Appendix C).

Generally, there is broad support for the 2030 agenda from the different departments and especially from the offices responsible for education, integration, equality and the environment (Appendix B; Appendix F). The strongest promoter, that advances the 2030 agenda in the canton, is the department with the SO, that is also formally responsible (Appendix E). The department holds the official mandate of the RR for the chosen process, as discussed in the two previous streams above. The ISG provided active support (Appendix D; Appendix E; Appendix F). Its members managed to come to agreements in all subject matters, as differences in opinion were only minor and certain challenges were undisputed (Appendix C; Appendix D). SD and its goals are widely accepted as a reference framework by politicians and the general population. On the other hand, the same account states that it is not put into practice very much (Appendix C).

There are offices with a critical assessment of the 2030 agenda within the administration, especially in agriculture. This policy field is strongly linked to many SDGs and has recently been under strong political, as explained above in the problem stream (Appendix B; Appendix E; Appendix F). This is a challenge for the cooperation regarding SD, that runs through all

levels of hierarchy and disagreements sometimes have to be raised to the highest level in the hierarchy for a decision by the RR (Appendix B). Generally, interdepartmental project groups and the following levels of escalation settle differences and government majority voting is rare (Appendix D).

Two accounts suggest that the ideological positions of actors matter for their appraisal of the 2030 agenda. Due to the global nature of the framework, it is more challenging to illustrate its benefits for the canton. Experience shows that this may be more difficult with some members of government, depending on their personal political orientation (Appendix B). Another department relates the openness to implement the 2030 agenda to the group of people as well, e.g., government, parliament, interest groups or associations. This account suggests that groups, that are farther away from the administration, are more likely to have critical assessments, due to a larger diversity in ideological positions, compared to the relative homogeneity in the administration (Appendix C).

Regarding governance, one account explains that the idea of the 2030 agenda and its implementation is not very strongly developed. This is because other political patterns and regimes dominate the governance of the administration. Actors tend to refer to established tools for governance, that run through finances and parliament, whereas the 2030 agenda remains much more abstract. Its goals may well be congruent to some of the existing specific goals and activities, that are already under implementation, even without the 2030 agenda label. It may also motivate people ideologically, but whether a more governance-oriented implementation would provide benefits in terms of a higher quality of political and administrative outcomes is unclear. (Appendix C). Another actor pursues the integration into existing tools and maintains, that the implementation of the 2030 agenda is underway, with or without the label (Appendix D; see also opportunity stream).

The implementation of the 2030 agenda requires support from employees everywhere within the organization (Appendix C). Especially project managers and decision makers develop and advance the administration. The SO approaches the leadership and the sections in all departments. A consideration of the 2030 agenda in everyday practices requires a broad dissemination and exposure of employees to this framework (Appendix E).

Regarding the theoretical research framework, this stream shows, that the participants in the administration, that are involved in the implementation of the 2030 agenda and SD more generally, usually remain the same (Appendix B). Consequently, this relatively stable set of

actors inside the administration differs from the assumption of fluid participation as a property of OAs and the GCM (Subsection 3.1).

Regarding SG, a key finding in this stream is that there is virtually no involvement of external participants from outside the cantonal administration in the implementation of the 2030 agenda. Four out of five data sources of the case confirm this finding, (Appendix B; Appendix C; Appendix D; Appendix E). The topic was not raised in the last interview since there was no indication to pursue it (Appendix F).

5.1.3 Intersections of Streams as Organizational Choice

This subsection explores the intersections of the different streams, based on the reconstruction above. Important, preliminary conclusions complete the end of some paragraphs and are highlighted in italics.

The first lead question from the analytical framework (Subsection 3.2.2) refers to a dominance relationship among the streams regarding organizational choice. An intersection of the streams in the polity cluster and the participants stream complies with this criterion. The institutional stream (para. 1) shows that the RR is taking the major decisions regarding the implementation of the 2030 agenda. It also has the final say to resolve conflicts, according to the participants stream (para. 3). The choice opportunity stream (para. 1) presents strong evidence, that the RR makes the final decisions in line with established procedure, that embeds these decisions. The procedure refers to the strategic management system of the canton, so that decision-making happens in the context of various management tools that the RR uses to govern and to lead the administration, i.e., the ELB and the NHB.

These tools appear in the institutional stream (para. 1) as well. The stream highlights their importance and the privilege of the departments with the respective competence to prepare the proposal for a certain tool. This intersection of these streams suggests that two choice opportunities for the implementation of the 2030 agenda stand out, which relate to the tools. These are, firstly, the acceptance of the 2030 agenda in the NHB. Secondly, the decision not to apply the 2030 agenda as an explicit leitmotif in the ELB. *There is a strong centralization of executive power for decision-making at the top of the hierarchy of the organization, i.e., in the RR. The implementation of the 2030 agenda relates to two important choice opportunities, following established procedure, i.e., the preparation and endorsement of two internal management tools, namely the NHB and the ELB.*

According to the choice opportunity stream (paras. 2-3), there are two different actors responsible for the preparation of the two management tools. These different participants design the proposal for the tools before the RR takes a decision. On the other hand, the participant stream (para. 1) holds that the administration practices a culture of interdepartmental cooperation in strategic matters. The existence of the ISG corroborates this. Regarding organizational choice however, the participants stream clarifies that the ISG is not a decision-making body and that it works rather conceptually and coordinatively. Furthermore, the different departments respect their individual fields of competence and share a mutual incentive not to interfere too heavily in another departments matters. *The administration is organized in several departments with exclusive fields of competence, i.e., a silo organization. Cooperation and coordination between departments take place, also specifically for the implementation of the 2030 agenda.*

5.1.3.1 *Ambiguity about the role of the 2030 agenda*

The intersection of the institutional, choice opportunity and participants stream above is important. The focus of this intersection is on the organizational choices for the integration of the 2030 agenda into the different management tools. The following paragraphs explain how ambiguity and the context of this Swiss cantonal administration challenge the implementation of the 2030 agenda in view of this intersection's focus.

According to the choice opportunity stream (para. 2), the SO has the goal to establish the 2030 agenda as the concrete basis of the ELB. This is once more explicitly confirmed in the interview summary with the SO, that addresses the intersection of the streams (Appendix B). This goal was not accepted so far. The choice opportunity stream (para. 3), includes an interpretation of this choice. As the responsible department for the preparation of the ELB, the state chancellery points to the 2030 agenda's implicit consideration in the ELB, that is reflecting its implementation. The state chancellery's genuine reasoning behind this choice suggests that there is no intention for a more explicit consideration of the 2030 agenda in the ELB. Once more, this position is emphasized in the last section of the interview summary with the state chancellery that addresses the intersection of the streams (Appendix D). According to this account, the 2030 agenda works supportively and it may be an explicit reference in 20 years if it prevails. Yet, at the heart of the state is the constitution and law that provide the framework for orientation rather than the 2030 agenda. *The ideas, that different departments have of the 2030 agenda, are not completely congruent. There is an ambiguity regarding the role of the*

2030 agenda and the practical goals for its implementation, that manifests in choices over the design of management tools.

The participants stream intersects with the choice opportunity stream regarding the finding of ambiguity above. The participants stream (para. 5) holds that the idea of the 2030 agenda is not very strongly developed and aptly explains the reaction of administrative actors to a new and rather abstract framework. In the context of an established PAS, existing political patterns and tools dominate. At the same time, there is a goal congruence in that many goals of the 2030 agenda are similar to existing goals. Thus, the ambiguity around the 2030 agenda refers less to its contents, given the goal congruence, but rather to its role, given that an established system of governance exists, as the dominant governance regime. Both the choice opportunity stream (para. 4) and the participants stream (para. 1) refer to the activities of the ISG, which did not have a more general discussion of the 2030 agenda's role. *One reason behind the ambiguity around the 2030 agenda is the context of the cantonal PAS with an existing governance regime in place. The administration follows that system, while the 2030 agenda's benefits are less clear, less discussed, and less experienced, which currently limits the extent of its implementation.*

Besides the cantonal context, another reason for the ambiguity is the more abstract nature of the 2030 agenda itself. The participants stream (para. 1) discusses that political-administrative actors have an intention to present results of their work to the public. To show that they provide solutions to problems it is easier to refer to concrete projects, rather than an overarching, abstract framework, such as the 2030 agenda. This more policy-related ambiguity is a content of the problems stream (para. 1) that joins the intersection with the previous streams here. It shows that the agenda 2030 barely refers to new problems and that many goals have already been achieved in Switzerland. In the context of a Swiss cantonal administration, more salient and pressing problems in the direct responsibility of the canton tend to have priority over the 2030 agenda with its universal approach to goals and problems. The content of the problem stream provides little evidence that a more fundamental implementation of the 2030 agenda in the governance regime is a benefit regarding local issues. The problems stream (paras. 3-4) also points to the 2030 agenda's value to address certain trade-offs and as a novel framework for SD. From this perspective, the 2030 agenda appears as rather specific and not generally applicable to the internal governance system of the administration. *Another reason behind the ambiguity around the 2030 agenda is that it does not raise many new issues and many problems are already solved or professionally addressed. This is due to its universal nature.*

On the other hand, the larger context and the reference to the international level of the 2030 agenda is a positive contribution according to the solutions stream (para. 1). It clearly intersects with the problems stream, but with the opposite polarity in the evaluation of the issue. In the solutions stream the role of the 2030 agenda is not to capture the specificity of local problems, but to put existing activities in a larger perspective and a more general context. Likewise, the solutions stream joins the discussed intersection regarding the ambiguity around the role of the 2030 agenda in the design of management tools. The solution stream repeatedly refers to the 2030 agenda in the NHB. However, there is no account of the 2030 agenda's contribution to the ELB, as another important management tool. *The evidence suggests that the different notions of the 2030 agenda limit its role to a more specific application regarding SD. The implementation of the 2030 agenda is accepted in the NHB as a SD-related management tool, but not beyond. More specifically, the perceptions of the 2030 agenda, as a solution, do not apply to the role and function of the ELB. This finding corresponds to the decision, not to consider the 2030 agenda explicitly in this tool.*

5.1.3.2 *The 2030 agenda's benefits and further implementation*

Another intersection between the streams revolves around the benefits, that employees of the administration assign to the 2030 agenda and its appraisal inside and outside of the organization. The solutions stream (para. 2) holds that the employees in the administration appreciate the SDGs as communication tools and the idea to contribute to a global agenda. Thus, the 2030 agenda offers helpful features and motivates these people to pursue its goals. Furthermore, the novelty of the framework offers a new approach for taking action according to the solution stream (para. 3). This intersects with the problems stream (para. 3) that explains the transition in the administration from the existing 32 topics for SD to the SDGs. The conclusion of the NHB highlights five SDGs that are key challenges for the canton. There are some changes compared to the previous edition of the NHB, that did not explicitly emphasize water, inequality and climate change. For the topic water, or SDG 6, this is also explicitly confirmed in the interview summary of the SO (Appendix B, ab 13:22). This suggests that the SDGs do provide a useful template to communicate these challenges. The participants stream (para. 2) intersects with this finding by pointing out that there is broad support for the 2030 agenda in the different departments. Furthermore, this stream holds that politicians and the general population generally and widely accept SD and its goals as a framework. On the other hand, the participants stream (para. 4) maintains that the ideological position of a person may be relevant for the appraisal of the 2030 agenda. As a global framework it is more difficult to show the 2030 agenda's benefits for the canton to people with certain political orientations. The ideological

cleavages in the administration are rather small compared to parliament or external stakeholders, such as associations. Finally, the implementation of the 2030 agenda concerns all employees of the organization, according to the participants stream (para. 6). The SO approaches different actors with the topic and raises awareness. Especially project managers and decision makers are a lever for change in the organization. At the same time, the resources of the SO are limited. The same applies to the members of the ISG, who contribute voluntarily. *Employees in the administration acknowledge benefits from the 2030 agenda in addressing particular problems. They generally support its implementation and dissemination in the organization. Translating benefits to the local level is essential, especially regarding ideologically more skeptical actors.*

In conclusion, this subsection identifies several intersections of streams and establishes an interpretation of organizational choice for the implementation of the 2030 agenda in the canton Aargau. The RR stands out as the central decision maker for all important choices and for the endorsement of two important management tools. The choices are to accept the explicit implementation of the 2030 agenda in one tool, that relates to SD, i.e., the NHB. It is not explicitly considered in the ELB, as a more general tool for the internal governance in the canton.

This role of the 2030 agenda as a more general leitmotif for the internal governance in the canton and the respective practical goals for its implementation are ambiguous. Different departments have different ideas. There is a match between these ideas and the choices of the two departments for the proposals of the respective management tools, i.e., to explicitly consider the 2030 agenda in the NHB and not explicitly in the ELB. This highlights the remaining ambiguity about the role and application of the 2030 agenda in the canton. It points to the question whether it is only relevant specifically for SD or also more generally for the entire internal governance regime as an explicit reference framework. The reasons for the ambiguity include the cantonal context with an existing, functioning governance regime and the universal nature of the 2030 agenda. Furthermore, the missing discussion of the general role for the 2030 agenda and the lack of experience with its implementation, at this early stage, matter. There is support for the 2030 agenda in the administration that acknowledges certain benefits. A broad involvement of different actors is required for its further implementation, whereas the translation of benefits for the local level and for ideologically different actors is a challenge.

5.1.4 Explanation of SGA Emergence through Organizational Choice

This subsection answers the research question: How does organizational choice explain the emergence of different sustainability governance arrangements? A first step presents the findings of the analysis above in relation to the assumed PGA for this case, i.e., network-oriented SG (Subsection 2.3.3), as some of its features are pertinent to the explanation of the SGA or the discussion of an SG transformation. The second step explains the emergence of an SGA for the implementation of the 2030 agenda, through the interpretation of the findings on organizational choice.

5.1.4.1 *Organizational choice and the network-oriented PGA*

Several findings of the analysis above concur with the features of the network-oriented PGA. The position of the SO is farther away from the center of power in the PAS, but it is still part of the organization. Thus, its autonomy is limited, but there is some room for maneuver in its field of competence, e.g., to pursue the application of the 2030 agenda in the NHB. On the other hand, important decisions require the endorsement of the RR. The SO provides support for other offices in the administration, but it barely addresses external collaborators. This is because of the low activity of external actors regarding SD in the canton. Within the administration, the organization of collaborations and networks is an important focus for the SO. The ISG is an example for this practice that creates a network for translateral collaboration towards SD beyond the separation of the organization in different departments.

Regarding the imaginative and reformist profile of network-oriented SG, the case study confirms a focus on opportunities. The application of the 2030 agenda in the NHB and the perception that the 2030 agenda is a new approach to generate action support this. The SO also uses fundamental ideas to transform governance towards SD. The ambition for the implementation of the 2030 agenda goes beyond the NHB and extends to the ELB, which is a more general strategic management tool with important implications for the internal governance. The case confirms the appreciation of incremental progress as a feature of the reformist mode of a SG transformation. Reorienting the existing NHB towards the 2030 agenda is an example for this step-by-step approach and a first milestone for an implementation. The SO aptly confirms this paced approach and the mindfulness not to ask too much too quickly of the colleagues in the choice opportunity stream (Appendix B). A specifically project-based approach that uses projects and campaigns to mobilize public support and external pressure is not a feature of this case.

5.1.4.2 *The emergence of the SGA: collaborative integration*

The analysis of organizational choice in the canton Aargau explains the emergence of the SGA for the implementation of the 2030 agenda. The key choices are the explicit implementation in the NHB, but not in the ELB. Despite the central role of the RR to take final decisions, the interactions among the departments and their interpretation of the 2030 agenda are important for this result. These interactions between the sustainability-niche actor, i.e., the SO, and the dominant governance regime highlight the following aspects of the SGA.

The SO is the key promoter of the 2030 agenda. For its implementation in the NHB, the SO organized the collaboration with the different departments of the public administration. The RR has provided a clear mandate for that and the other departments actively engaged in the ISG. Therefore, the sustainability-niche actor and other participants collaborated for the integration of the 2030 agenda in the NHB, thus changing features of the internal governance regime. The explanation for the collaboration in this SGA is that the organization by and large accepts and supports reporting on SD as an opportunity for innovation and experimentation regarding SD. Yet, this pattern of interaction is constrained to the sustainability-oriented niche in the governance regime, i.e., the NHB as one particular management tool.

The larger goal of the SO in this SGA, to reorient the internal governance towards SD through the explicit implementation of the 2030 agenda in the ELB, has not yet been achieved. Despite the intention, so far this has not been a key activity of the sustainability-niche actor either, as the focus was on the preparation of the NHB. Yet, while reporting on SD is a core competence of the SO, the preparation of the ELB concerns the fields of competence of other departments. The 2030 agenda is currently not accepted as a leitmotif for this more general strategic management tool. The explanation for this organizational choice is the currently ambiguous role of the 2030 agenda. Different departments have different interpretations and the support by the RR is limited. Thus, the ELB and the fundamental processes to establish it remain unchanged and SD has not explicitly received more emphasis through the 2030 agenda in it. This is a limitation for the implementation of the 2030 agenda in this SGA and a resistance of the dominant regime of the cantonal administration. This is highlighted by the position that the constitution and law provide orientation and not the 2030 agenda, as a global reference framework for SD (cf. Subsection 5.1.3.1).

A further aspect of this SGA is the support for the implementation of the 2030 agenda. Even though it is currently limited to one specific tool only, the efforts of the departments to collaborate in this matter support an open and positive reception of this framework. This support

is both an explanation for the emergence of the SGA, as described above, but also a resource for future activities regarding the 2030 agenda.

In conclusion, this SGA might be named *collaborative integration*, in which organizational choice explains the emergence of this SGA as follows. The promotion of the 2030 agenda through the SO and its implementation in the NHB facilitate interaction between the sustainability-oriented niche and the dominant governance regime. From a policy perspective, this coordination has allowed for the comprehensive integration of the SDGs in the NHB together with all other departments. The polity perspective highlights the RR as a central authority, taking the important decisions, but also how different departments maintain their positions in their fields of competence. This explains the current limits of the implementation of the 2030 agenda and of the SO's influence on the development of the governance regime. The politics perspective of this SGA shows the productive internal collaboration among the actors in the administration and an open reception of the 2030 agenda, despite some conflicts. The study's explanation for that refers to a narrow ideological spectrum in the administration. This makes interactions less political and agreements in controversies can be established through reasoning with arguments. Beyond the administration, the broader ideological spectrum is a challenge, which most likely affects the appraisal of the 2030 agenda in the RR or in parliament.

5.2 Case 2: Canton Basel-Stadt

5.2.1 Document Analysis

The canton Basel-Stadt provides several recent documents that address SD. Both the guideline sustainability in Basel-Stadt and the indicator report SD issue 2020 introduce the 2030 agenda as the national and international reference framework. Both documents focus on the cantonal approach to SD, for which the 2030 agenda is merely a framing in the introduction. The documents explain that local circumstances require adapted strategies for SD in many cantons, due to the different preconditions that local communities face. Subsequently, the documents present how SD is embedded in the cantonal constitution, the concrete application of SD as a process and six relevant topics for SD. The topics include population, government action, societal cohesion, economic development, basic needs and wellbeing as well as the natural basis of existence. The documents refer to the interactions between these topics and introduce further objectives, such as justice, value preservation, and the preservation of agency. It describes the idea of a 360° view to ensure the holistic consideration of all topics and objectives in interdisciplinary projects (Präsidialdepartement des Kantons Basel-Stadt, 2020; Statistisches

Amt des Kantons Basel-Stadt, 2020). There appears to be no more explicit information or references regarding the implementation of the agenda 2030 in the canton Basel-Stadt.

There is another document that is important for the governance of the cantonal administration. The current government program applies to the legislative term 2017–2021 and is currently under review. It includes four challenges for the canton as well as twelve goals with a selection of interventions for each goal. The Presidential Department (PD) coordinates the preparation of the government program, more specifically the same office, that is also responsible for SD, i.e., the office for fundamental issues and strategies (Regierungsrat des Kantons Basel-Stadt, 2017). The document is one cornerstone of strategic management in the canton and as such it is supposed to orient at SD. Explicitly, this reference to SD is only visible in a schematic diagram on the web page, that explains the planning and steering process for the government program (Präsidialdepartement des Kantons Basel-Stadt, n.d.). There is no reference to the 2030 agenda.

5.2.2 Case 2: Reconstruction of Streams

This subsection explains the different streams, which are a reconstruction from the interviews, as documented in the summaries (Appendices G–I). The analytical framework provides a general explanation of each stream (Subsection 3.2.1.).

5.2.2.1 Policy cluster - Solutions stream

In the cantonal administration of Basel-Stadt, employees recognize the global character of the 2030 agenda (Appendix G; Appendix H; Appendix I). Two accounts in this stream refer to the 2030 agenda as a solution. First, the SDGs are well developed and formulated. Cantonal decision makers can make use of them as a basis and template if they want to address deficits in a subject area (Appendix H). The second account explains that the 2030 agenda provides a general legitimation on a high level, e.g., regarding poverty. This provides a justification for goals and programs, that address the issue. Then again, the cantonal constitution demands SD as well (Appendix I).

Generally, there is little reference to the 2030 agenda in Basel-Stadt. Implicitly however, the integration of SD and participation as fundamental principles in the cantonal constitution is important. In Europe many political strategies exist for a long time and develop incrementally rather than adopting a new framework, such as the 2030 agenda. On the other hand, the topic of climate change continues to receive more attention, which points out the necessity of global solutions. This promotes global agreements like the 2030 agenda. Nevertheless, this happens

only indirectly and very selectively, and it can also lead to a contrary egoistic politics, which makes engaging in these topics less attractive (Appendix H).

The 2030 agenda is an important fundamental for the SO in the PD, that is responsible for this topic. Other departments also know about the 2030 agenda, but it is very much in the background, and they do not use it in everyday practice. It is a global concept, and the canton is a local level. The PD involves other departments for reports or consultations on the topic (Appendix I). The SO has translated and adapted the principles of the 2030 agenda to the local circumstances to include it in the canton's approach to SD. Thus, the implementation of the 2030 agenda happens implicitly (Appendix G).

5.2.2.2 *Policy cluster - Problems stream*

The approach of SD in the canton Basel-Stadt includes the SDGs. Beginning in 2013, this cantonal approach to SD has been updated to turn the scientific results into a holistic understanding, that is practically applicable. This approach revolves around the term quality of life today and tomorrow (Appendix G). It encompasses a holistic view for the preservation of the various bases of existence of people, e.g., the natural, social, or financial bases. It also includes agency, as the ability to preserve these bases of existence and to react to change. Finally, it refers to intra- and intergenerational justice (Appendix G).

The constitution includes SD holistically as a principle for government action, that refers to six topics. The topics have different indicators and numerous interdependencies exist. SD, same as quality of life, is a cross-cutting issue, that concerns all policy fields. Furthermore, SD is a societal process, where handling trade-offs is essential, so that balancing and setting priorities is necessary (Appendix G).

Another account emphasizes that not all but the most important of the 2030 agenda's 17 goals need to be explicitly addressed in the government program. In the cantonal administration, there are people who still know the agenda 2030, but in Swiss cities and municipalities a global program is too far away. It requires the federal government to promote and demand the implementation through clear specifications and timelines for the implementation in the Swiss context. This requires programs and policies for funding and financial compensation. The key players, that decide about the implementation, are at the federal level. They are also the ones, which are in touch with the UN (Appendix H).

In the field of environmental policy, one department recognizes that there is an urgent need for action for climate protection in the global context. Despite the importance of this global

perspective, it is local topics that matter most at the local level. Any implementation does not work without a local adaptation, so that the 2030 agenda does not provide a realistic reference (Appendix I).

5.2.2.3 Polity cluster - Choice opportunity stream

All departments implement the 2030 agenda decentrally and interdepartmental cooperation is vital. There are guidelines for SD, which do not directly relate to the 2030 agenda. Employees, who prepare projects, carry the responsibility to balance priorities and to address conflicting goals in the spirit of SD as a societal process. At the launch of the project the respective employees identify important topics and aspects to define the project. This reveals conflicting goals early, allowing an assessment if there is a technical solution or if this requires a political decision. For the administration, this distinction is important (Appendix G). Departments present projects in their respective field of competence to the government for consideration via a certain type of report. Within this field of competence, the departments are rather autonomous. If necessary, the government takes landmark decisions or assigns duties through executive orders (Appendix I).

Since there is no explicit implementation of the 2030 agenda in the canton, there is no workgroup or committee dedicated to it. The administration is organized to cooperate project-based. The broad scope of the 2030 agenda is best understood as the totality of government action. Individual decisions only refer to particular aspects. (Appendix H).

Employees in the administration have guidelines for SD, as a tool to consider SD when they prepare projects. There are no explicit references to the 2030 agenda in the topics or the tool. The reasoning behind this decision is that the content remains the same and there is no added value for the general population from a communication perspective. This is because the SDGs are too far away and, supposedly, not even known. As an abstract, global framework the 2030 agenda is also too far away for the administration, compared to the canton's approach to SD, that is translated to the local level. That is why it is easier to apply than the 2030 agenda (Appendix G).

One account highlights that the decentral approach requires all project managers and decision makers to follow the idea of SD. Yet, the observation is, that the application of the guidelines is very limited. The assumption is that it is difficult to reach all relevant employees and to make them understand and implement this tool. But SD needs to be embedded in the design of projects and a criterion in every decision. Even in government decisions SD should be an

explicit dimension among others, so that the discussion of the decision refers to SD. Ultimately, it is the projects, that employees design and decision makers approve, that matter most. The influence, that the PD and the guidelines have, i.e., concepts and papers, are more limited than they might think (Appendix H).

There are many projects to support the canton's SD. Oftentimes this is based on political decisions, which are initiated by motions or initiatives. Furthermore, the administration may launch projects, if costs are not too high, in which case a political decision becomes necessary (Appendix G). The cantons generally have the autonomy and the possibility to set ambitious goals, e.g., to be the first to achieve climate neutrality in Switzerland. Yet, in a federal system the cantons observe and compare each other and there is no need for action if the others do not act. Action requires effort and is expensive, which needs justification in negotiations if there are no explicit specifications from the federal authorities. (Appendix H). If the federal government demanded regular reporting, the implementation of the 2030 agenda would be on the agenda in the cantons. Otherwise, the perception of problems at the local level dominates (Appendix I).

5.2.2.4 *Polity cluster - Institutional stream*

Basically, everything that the canton does relates to the 2030 agenda. It does not carry this name, but all efforts of the departments go that way. The administration's role in SD is to address and mitigate trade-offs and balance different interests. The departments supervise projects in their field of competence and cooperate with all other departments and people inside and, if necessary, also outside the administration, even beyond cantonal or country borders (Appendix G). Experience from transport policy shows, that the departments can facilitate SD in their field of competence rather autonomously. This requires a politician, that consequently steers the same course in a department for a longer period of time. The 2030 agenda could be a guideline for that, if the federal government demanded the cantons to comply with clear specifications (Appendix H).

Changing how employees of the administration think happens in their practical work and decision-making. This needs to be practiced every day or clearly prescribed (Appendix H).

In the canton, SD happens in concrete projects, where solutions are required. The fundamental work for the redefinition of the cantonal approach to SD by the PD involved other offices only marginally. The task was to create an approach to SD, that is based on the cantonal constitution

and on scientific insights and the 2030 agenda. The wording of the constitution is often adopted (Appendix G).

5.2.2.5 *Politics cluster - Participants stream*

The coordination regarding conflicting goals happens among the involved administrative offices by themselves to find a technical solution, that complies with all legal standards. If this fails, a political decision solves the issue (Appendix G).

The cantonal constitution provides for the participation of external actors and the administration involves stakeholders, which is common procedure (Appendix G). There is a lively involvement of external actors and organizations, but not explicitly regarding the 2030 agenda. Many aspects of the 2030 agenda are integrated in the administration's system and the thinking, without explicitly naming them (Appendix I).

Within the administration, the PD is responsible for promoting SD and the development of the city. This is coordinated with other departments at higher levels of hierarchy. The PD is also involved in the preparation of the government program and contributes ideas for the development of the canton, but not on behalf of the 2030 agenda (Appendix H).

Employees with an academic title and decision makers have the knowledge about SD. Critical assessments refer to the vagueness of sustainability, that makes working with it difficult if there are no clear standards. But there are tools, like checklists, that help people (Appendix H).

5.2.3 Intersections of Streams as Organizational Choice

This subsection explores the intersections of the different streams. Important, preliminary conclusions complete the end of some paragraphs and are highlighted in italics.

5.2.3.1 *Implicit implementation of the 2030 agenda*

A first intersection of streams refers to the implicit implementation of the 2030 agenda. The institutional stream (para. 1) holds, that everything, that the canton does and all the efforts in the departments, relate to the 2030 agenda, even without using that name. In the same vein, the cantonal approach to SD comprises the SDGs, according to the problems stream (para. 1). The solutions stream (para. 3) confirms that the implementation of the 2030 agenda happens implicitly, through the translation and adaptation of its principles to the local level by the SO. Finally, the choice opportunity stream (para. 1) clarifies, that the departments implement the 2030 agenda decentrally and through interdepartmental cooperation. There are guidelines for SD, as a tool for support, that do not directly refer to the 2030 agenda. *The implementation of*

the 2030 agenda happens implicitly. The local adaptation of its principles in the cantonal approach to SD covers an implementation.

The findings above are highly relevant, but all statements that support them come from the same single source. There is more information from other accounts in the intersecting streams, that corroborates the finding above partially, i.e., that there is no explicit implementation of the 2030 agenda. This issue appears in the choice opportunity stream (para. 2), which also explains that there is no committee or workgroup to address its implementation. Instead, the administration works project-based and the 2030 agenda rather reflects government action in general. The solutions stream (para. 2) confirms the low profile and minor role of the 2030 agenda in the canton as well. However, its implementation implicitly relates to the integration of SD in the constitution, as an important fundamental principle. Furthermore, the solutions stream (para. 3) clarifies that the 2030 agenda is very much in the background and it does not directly relate to everyday work. It is mainly important for the SO, that is responsible for the topic and its development in the canton. The participants stream (para. 2) adds that the administration's systems and the thinking consider much of the 2030 agenda implicitly. *Employees in different departments assert that there is no explicit implementation of the 2030 agenda. Explicitly, it concerns only the SO, that is responsible for SD. Two departments associate the 2030 agenda only vaguely with administrative and government action in general. One department recognizes a connection to SD in the cantonal constitution. There is no further evidence how the cantonal approach to SD includes the 2030 agenda more specifically.*

5.2.3.2 *Reasoning for an implicit implementation*

Another intersection of streams suggests that the global nature of the 2030 agenda is not applicable in a local context. The solutions stream (para. 1) presents the 2030 agenda as a solution, because of the quality of the SDGs and the high-level legitimation it can provide. The employees of the administration acknowledge the global character of the 2030 agenda and point out that the cantonal constitution also provides for SD. This places the 2030 agenda, as a global framework with certain qualities, in a local context, where the cantonal constitution is a strong and established reference for SD. This role and the value of a global solution appears once more in the solutions stream (para. 2) with the example of climate change. The same applies to the problems stream (para. 4), that puts into perspective, how the necessity to act on this global problem turns out in the local context, where local topics matter most. Thus, the administration does not recognize the 2030 agenda as an applicable reference. Even though it addresses global issues, an implementation would require the adaptation to local issues. The same appears in the

choice opportunity stream (para. 3), regarding the decisions not to refer to the 2030 agenda in the guidelines for SD. There is no benefit of working with the 2030 agenda for the communication with the local population and it is also too abstract for the administration. The choice opportunity stream (para. 4) also holds, that cantons focus on local priorities and they would only attend to the 2030 agenda if it was demanded by the federal government. *The cantonal administration in Basel-Stadt has chosen not to rely on the 2030 agenda. Despite the acknowledgement of some benefits, the global and abstract nature of the framework disqualify it for the work in the local context. The SO promotes a tailor-made approach to SD, that is locally adapted and firmly grounded in the cantonal constitution. The 2030 agenda provides little benefits, is less known and too abstract, making it practically irrelevant and its implementation solely implicit.*

5.2.3.3 Management tools and the 2030 agenda

According to the solutions stream (para. 3), the PD is responsible for the 2030 agenda, which is an important fundamental for this department. The participant stream (para. 2) holds, that the PD contributes ideas to the government program, even though these ideas currently do not refer to the 2030 agenda. The problem stream (para. 3) adds that the most important SDGs should be included in this management tool. Likewise, in the guidelines for SD, the 2030 agenda is essentially irrelevant, according to the choice opportunity stream (para. 3). On the other hand, the institutional stream (para. 1) refers to the 2030 agenda as a possible guideline, that refers to the experience of progress towards SD in transport policy. For a politician, that leads a department, the 2030 agenda might be a helpful reference. Then again, this would require the federal government to demand implementation from the canton. *The PD is the most important department for the choice not to implement the 2030 agenda explicitly. This role extends to important management tools, such as the government program and the guidelines for SD in the canton. The SO acts as a gatekeeper with a clear focus regarding SD. There is a repetition of the notion above, that the federal level needs to address the cantons regarding the implementation of the 2030 agenda.*

In conclusion the organizational choice in the canton Basel-Stadt is not to implement the 2030 agenda explicitly. Instead, the cantonal approach to SD covers it implicitly. Since there is no explicit implementation, the 2030 agenda is not practically relevant for the work of other departments and it remains the sole concern of the PD. As the responsible department for SD, the PD provides the reasoning for the choice to only implicitly implement the 2030 agenda. In the perception of the SO, the 2030 agenda is too abstract for the communication within or

outside the administration. Much different, the cantonal approach to SD refers to the integration of SD in the cantonal constitution and it is adapted to the local circumstances. Before this background, the 2030 agenda appears not to provide any added value in this context, given its universal, global orientation. In its essence, other departments share this interpretation and the focus on local issues. The 2030 agenda is also not a reference in different strategic management tools. This finding is in line with the evidence from the document analysis, where the 2030 agenda was merely a reference in the introduction of the documents.

5.2.4 Explanation of SGA Emergence through Organizational Choice

This subsection answers the research question: How does organizational choice explain the emergence of different sustainability governance arrangements? A first step presents the findings of the analysis above in relation to the assumed PGA for this case, i.e., strategy-oriented SG (Subsection 2.3.2), as some of its features are pertinent to the explanation of the SGA or the discussion of an SG transformation (Subsection 6.2). The second step is the further interpretation of the findings on organizational choice to explain the emergence of an SGA for the implementation of the 2030 agenda.

5.2.4.1 Organizational choice and the strategy-oriented PGA

The findings above concur only partly to the features of the strategy-oriented PGA for the case of Basel-Stadt. There is agreement on the position of the SO in the PD, that is close to the power center and the engagement in decision-making. This becomes evident in the privilege to contribute ideas for the government program, which implies access to important actors and the involvement of the SO in the politics dimension. Yet, there is no evidence that this happened regarding organizational choice for the 2030 agenda. Likewise, the mobilization of support through political legitimacy beyond the cantonal constitution by the SO does not apply to the choice of a merely implicit implementation of the 2030 agenda. The high significance of the cantonal constitution and the integration of SD in it is one of the reasons not to implement the 2030 agenda explicitly. Therefore, support beyond the constitution is not necessary.

Making use of opportunities towards sustainability is a key practice for this PGA. This research project presumes the 2030 agenda an opportunity for SD and expects its implementation (Subsection 3.2.2). In the case of Basel-Stadt, the organizational choice is not to implement it explicitly, based on the notion, that the 2030 agenda is not an opportunity in the local context. Thus, there is no evidence how the SO uses opportunities, even though this is likely due the research focus on the 2030 agenda and the assumption regarding its implementation.

The analysis of organizational choice shows no evidence that confirms the imaginative profile in the strategy-oriented PGA. There is no reference to political support or any political involvement. Arguably the 2030 agenda is an overarching idea towards sustainability beyond departmental orientations and offers a new way of thinking about SD (Section 1). On the other hand, departments already cooperate project-based regarding SD and they interpret the new way of thinking, that the 2030 agenda offers, as too abstract for the local context.

A reformist profile in the organizational choice for the implementation of the 2030 agenda in Basel-Stadt appears through the stern focus on local issues and circumstances. In a way, the merely implicit implementation might just confirm the distinctive acceptance of existing logics of policy and politics of this PGA, namely what matters at the local level and how local actors relate to it. In this context the 2030 agenda is not a helpful framework for this focus and thus the administration makes no explicit use of it.

5.2.4.2 *Explaining the emergence of the SGA: Decentralized Oversight*

According to the analytical framework, organizational choice for the implementation of the 2030 agenda explains the emergence of the SGA. In the case at hand, the sustainability-niche actor does not promote the explicit implementation of the 2030 agenda, nor the transformation of the internal governance regime through it. This is inconsistent with the expectations of the analytical framework, so that the explanation of an emerging SGA for the 2030 agenda is not possible. Nevertheless, the case provides insights about SG and an SGA, that does not rely on the 2030 agenda.

An essential feature of this case is the SO's clear assessment of the 2030 agenda in the local context. Despite rare exceptions, the 2030 agenda remains the sole concern of the SO and there is little evidence for frequent interaction with different departments. It is the SO's assessment that determines the choice to reject an explicit implementation of the 2030 agenda. For the cantonal administration, this choice prevents goal ambiguity from the new framework. Regarding SG, this arrangement suggests that fundamental decisions about SD in Basel-Stadt are in the field of competence of the PD, where the SO shapes SG through organizational choice at a high level. In this case, that means relying on existing mechanisms to organize collective action towards SD, and not to actively translate the 2030 agenda from the global to the cantonal level.

These mechanisms to pursue SD in the administration focus on the project-based cooperation of the departments to implement SD in projects. This applies to all levels of hierarchy and also

appears to work independently without the direct involvement of the SO. This decentralized approach to implement SD in tangible projects builds on the guidelines for SD, that support the responsible employees. In turn, the SO is responsible for these guidelines. Thus, this SGA relies less on direct and personal interactions between the SO and the other departments for the application of SD. Instead, SG works through an organization-wide application of the idea of SD in projects. The role of the SO is to take fundamental decisions about SD and shape a locally adapted framework for its practical implementation in the canton. The cantonal approach to SD and the guidelines are examples for this type of support and the interactions with other actors in the administration.

The explanation not to implement the 2030 agenda explicitly highlights a strong emphasis on the locality of issues in the administration. Since the cantonal constitution includes SD, there is a strong local reference, that provides guidance for collective action towards SD. This legal basis for internal governance is very general itself, but it is substantiated by the cantonal approach to SD. Also, the indicator report on SD by the statistical office of the canton provides detailed information with a local scope. Thus, the SO has both a history and a firm belief that the adaptation of SD frameworks to local circumstances is necessary.

In conclusion, the SO's assessment of the 2030 agenda explains why it is not implemented explicitly, which explains why there is no emerging SGA through the 2030 agenda in this case. Yet, organizational choice in this case highlights the following aspects of SG and the existing SGA, that might be named *decentralized oversight*. Regarding the polity dimension, the SO acts as a central decision maker for SD, that has a clear assessment of the 2030 agenda in the local context and chooses not to implement it explicitly. This central decision-making is contrasted with the existing practice to implement SD decentrally and project-based in all departments and at any level of hierarchy. With the constitution and the adapted cantonal approach to SD there is an established reference and approach to implement SD. The SO continues to rely on this approach, that strongly refers to the locality of issues. Thus, the SO prevents ambiguity from the new goal framework by rejecting the explicit implementation of the 2030 agenda, that the design of this study presumed. The adapted approach to SD in Basel-Stadt also offers some structure for the policy dimension by providing references for goals and the issues to address. Other departments in the administration have different views on the SDGs, but there is agreement that local issues prevail at the local level. Thus, frameworks require adaptation to local circumstances and the administration negotiates solutions for SD project-specifically.

There are virtually no findings regarding the politics dimension, as there is barely any evidence of interactions, conflicting interests, or power struggles between actors in this case. This lack of interactions between different actors and between the sustainability-oriented niche and the dominant governance regime give little substance to the SGA in this case.

6   Discussion

This section discusses the case studies from Section 5. Subsection 6.1 compares the results of the analysis of both cases and the findings on SGAs, highlighting significant agreements and differences. Subsection 6.2 discusses the findings of the case studies before the background of the literature on SG transformations (Subsection 2.4). Furthermore, the section points out limitations of the study and suggestions for future research (Subsection 6.3).

6.1   Comparison of the Case Studies

A comparison of the case studies shows fundamental differences in the implementation of the 2030 agenda in public administrations and the emerging SGAs. The differences concern the role of the SO, the involvement of other departments and the reference to the legal basis or management tools. The labels for the SGAs, namely, collaborative integration and decentralized oversight respectively, refer to different patterns that summarize these differences.

Regarding the 2030 agenda, the most crucial distinction between the cases is its appraisal in the cantonal context by the SOs. The two cases show that such interpretations can either lead to an active engagement of the administration with its implementation or to a rejection in the local context and a merely passive consideration by the SO only. There is agreement between the cases, that the 2030 agenda is primarily in the field of competence of the SOs. This opens a room for maneuver and the possibility to act as a gatekeeper in line with the SO's interpretation of the 2030 agenda. Thus, these actors have the means to determine fundamental directions of organizational choice, even if final decision-making happens at higher levels in the hierarchy. Yet, in the case of the canton Aargau, the other departments' interpretations and fields of competence constrain the room for maneuver and the scope of the implementation. The extent of an explicit consideration of the 2030 agenda is thus limited to the report on SD. In Basel-Stadt, the SO's choice not to implement the 2030 agenda explicitly does not require any involvement of other departments or a comprehensive consideration of the 2030 agenda in any management tool. The constitution and the cantonal approach for SD provide for a superior, local reference to SD, making the 2030 agenda, virtually irrelevant. Thus, the comparison of the SGAs shows that the role of the SOs and the mechanisms to organize collective action for SG are very different. Both these aspects suggest that differences in the existing approach to SG matter for the translation of the 2030 agenda to cantonal administrations.

The SOs' explanations for their interpretations of the 2030 agenda support a relation to key features of SG in both cases. The cantonal profiles of previous research about PGAs capture these similar issues. Basel-Stadt emphasizes the constitution and its locally adapted approach to SD. In Aargau, the sustainability report is a key means for the integration of SD, to which different departments contribute and that is one basis for the cantonal development strategy in the ELB (Bornemann & Christen, 2019a). Thus, these case specific features continue to shape how cantonal administrations organize collective action, also when a new opportunity to pursue SD emerges. This suggests that the established governance regimes and the consideration of SD in it, show stable features and possibly follow somewhat predetermined paths. This observation relates the idea of a transformation of the internal governance towards SD, as complex and long-term changes of this system (Patterson et al., 2017). The next section discusses the study's findings in view of the reviewed literature for SG transformations (Section 2.4).

6.2 Discussion of Sustainability Governance and its Transformation

This subsection discusses how the findings on organizational choice and the SGAs relate to features of SG transformations, according to the reviewed literature in subsection 2.4. Besides the findings regarding the 2030 agenda, this subsection also refers to more general findings for SG, especially for the case of Basel-Stadt. Table 1 presents a comparison of steering for SD in the literature and in the empirical cases of this study.

The literature on steering for SD points out problems and concepts, that also apply to the case studies. The two problems of goal ambiguity and uncertainty from complex interactions, that are inherent to the 2030 agenda, produce different reactions in the studied public administrations (Biermann et al., 2017; Voß et al., 2007). In the canton Aargau, these are addressed through extensive interdepartmental cooperation to integrate the SDGs in the reporting on SD. The canton Basel-Stadt, rejects an overt local application of the 2030 agenda, thus circumventing the goal ambiguity in this framework entirely. The public administration still needs to cope with this problem, but the SO in Basel-Stadt favors to solely rely on the local approach to SD instead of a global framework.

Planning and management tools, that the literature proposes through concepts of NPM and MBO, also have a different importance for SG in the two cantonal administrations (Voß et al., 2007). The systematic integration of the 2030 agenda in the management tools of the canton Aargau is an attempt of the sustainability-niche actor to change the state of the existing internal governance regime, by establishing the 2030 agenda as an explicit reference. The results of

organizational choice explain why this innovation is currently limited to the sustainability-related reporting and why the 2030 agenda is not explicitly considered in the strategic management tool, the ELB. Thus, innovation and experimentation for a SG transformation happen close to the sustainability-oriented niche so far. The exerted influence on the dynamics of development of the dominant regime, i.e., the strategic orientation of the canton through the ELB, has not yet accomplished a shift of the internal governance to a different state. Another concept to address ambiguity might be the missing link here, namely shared visions to support planning and coordination of heterogenous actors and motivate participants. After the policy-centered integration of the SDGs in the NHB, establishing a shared vision could address the broader picture of SD in the internal governance regime of the administration and the remaining ambiguity about the role of the 2030 agenda. Members of the ISG already refer to this idea in the solutions stream (Subsection 5.1.2.1, para. 2). These findings correspond to Zeemering's (2018) discussion of sustainability as a reform concept in public management, where he sees "(…) sustainability as a reform value or principle to guide decision-making in public organizations." (Zeemering, 2018, p. 138).

The cantonal administration of Basel-Stadt can refer to a shared vision of SD in the cantonal constitution and in the cantonal approach to SD. Together with the decentralized implementation of SD in all projects of the administration this emphasizes that the administration pursues SD concretely and practically. The SO mitigates and avoids complexity at an abstract level, which is also a key purpose of the adapted cantonal approach to SD, that frames SD as a process and promotes a 360° view (cf. Section 5.2.1). The focus on local issues and solutions shares this emphasis and disqualifies an explicit implementation of the 2030 agenda. This contributes to the reduction of ambiguity and uncertainty, as key problems in steering for SD (Voß et al., 2007).

Regarding the third problem of distributed power, the literature refers to negotiations in networks to improve coordination for collective action (Voß et al., 2007). To address this problem, the cantonal administration in Aargau relies on an internal network, the ISG. By facilitating the coordination between the different departments of the organization, the ISG contributes to aligning the different departments' fields of competences and the respective policies with SD. This addresses the horizontal distribution of power only. Within the ISG, participants applied the arguing technique, as documented in the solutions stream (cf. Sub-section 5.1.2.1; Voß et al., 2007). The ISG and its activities have advanced SD by orienting departmental policy issues to the SDGs, thus clarifying problems and highlighting key

challenges. There is less interaction between the SO and the dominant governance regime regarding the vertical distribution of power within the administration, especially regarding the RR, as an important decision maker. This corresponds to the position of the SO farther away from the center of power according to the network-oriented PGA.

Regarding the vertical distribution of power in Basel-Stadt, this study's findings confirm the SO's position of the strategy-oriented PGA close to the power center. This suggests a high influence in decision-making for SD like in the case of the 2030 agenda. On the other hand, the SO delegates the responsibility for the consideration of SD in projects to all employees in the administration. This highlights a more informal but also very practically oriented network for the negotiation of concrete issues of SD in these projects. It refers both to the vertical and the horizontal distribution of power as it concerns all levels of hierarchy and all departments. Table 1 summarizes the problems and concepts of steering for SD in the literature and in the empirical findings of their application in the case studies.

The discussion confirms that problems and concepts of the literature on steering for SD apply to the public administrations in the empirical case studies. Especially goal ambiguity plays an important role regarding organizational choice and the emergence of SGAs. Cantonal administrations utilize the concepts that address these problems in different ways. Some of the management tools, that the case studies refer to, are not primarily geared towards SD, so that its integration is limited or not accepted at all. On the other hand, management tools, such as a government program or the ELB are important for the internal governance of public administrations and thus a possible lever for transformations. The procedures to prepare them are situations of organizational choice, that reflect the dynamics of development of internal governance. These are opportunities to influence a shift in the system towards SD, as the steering literature suggests (cf. Subsection 2.4).

Regarding the transformation of SG as "(…) transformative change in governance regimes." (Patterson et al., 2017, p. 4), the findings in this study suggest a limited significance of the 2030 agenda. In Basel-Stadt, there is no evidence that the 2030 agenda causes any change. For the public administration in Aargau, the integration in the reporting on SD is a first step, but the transformative impact on the internal governance regime is limited. Nevertheless, this is a good starting point to advance the 2030 agenda as a principle for decision making and a value for reforms (Zeemering, 2018).

Table 1

Steering for SD in the literature and in the case studies (Selection, based on Voß et al., 2007)

Literature	Empirical cases	
Steering problems: concepts for steering	Case 1: Aargau	Case 2: Basel-Stadt
Goal ambiguity: NPM & MBO	Addressed through interdepartmental cooperation (to prepare management tools)	Avoid and mitigate at an abstract level, i.e., in the framework for SD
Goal ambiguity: Shared vision		Cantonal constitution and adapted approach to SD
Uncertainty of complex interactions: Negotiations in networks	Coordination in the ISG for the implementation of the 2030 agenda	Pursue SD practically in tangible projects focusing on concrete, local issues and solutions
Horizontal distribution of power: Negotiations in networks	Coordination in the ISG for the implementation of the 2030 agenda	Project-based approach for the implementation of SD involving all relevant employees in the organization
Vertical distribution of power: Negotiations in networks		Position of the SO close to the power center, according to the strategy-oriented PGA

6.3 Limitations and Implications for Future Research

The study is subject to several conceptual and practical limitations. Future research needs are pointed out further below.

The empirical context of this study only partly agrees with the features of OAs. Cantonal administrations do face goal ambiguity for the implementation of the 2030 agenda. On the other hand, in the first case the participants for this organizational choice largely remain the same, which contradicts one of the assumptions of fluid participation in OAs. In the second case of a single actor decides over the implementation of the 2030 agenda, based on its own appraisal. Furthermore, there is no evidence that participants in decisions do not coherently assess factual

relationships. The occurrence of conflict in the Aargau supports the assumption that actors have conflicting preferences, that may change over time. Nevertheless, the public administrations and their behavior in organizational choice do not strongly comply with the idea of OAs. Instead, the evidence shows that they follow certain rationales, such as a focus on local issues or the balancing of different interests and priorities.

With a focus on the departments and their interactions, the significance of vertical structure in the organizations is understudied. The cantonal government is at the top of the hierarchy of public administrations and an interdepartmental group of actors itself. Case 1 has confirmed that it takes important decisions, but how this committee of political decision makers operates is outside the scope of this study. The same applies to case 2, where the SO is close to the center of power, but the implications for SG and its transformation remain completely unclear.

Moreover, a major practical limitation of this study is the low number of interview sources for the case in Basel-Stadt. Due to the study's focus on the 2030 agenda and the choice not to implement it in this canton, there are barely any employees that have anything to do with or to say about this topic. This turned out as a disadvantage of the theoretical selection of cases. Since the SGAs focus on interactions between different departments and between niche and regime the substance and explanatory power is weak without sufficient interactions in an SGA.

This study suggests several areas for future research. First, organizational choice for the transformation of SG is a highly relevant topic, that deserves further attention, where this study had its limitations. Thus, future research might address the role of cantonal governments and the influence of other actors outside the administration, such as the parliaments or associations, that this study neglected. Second, the comparison of the SGAs shows references to the PGAs, that suggest continuation in the internal governance regarding SD (Subsection 6.1). Therefore, studying SGAs in other cantonal administrations with other PGAs might reveal how SG changes over time and what determines the dynamics of development in these systems of internal governance.

7   Conclusion

This study shows how organizational choice explains the emergence of SGAs in public administrations for the implementation of the 2030 agenda. Two case studies conclude that the assessment of the 2030 agenda by SOs strongly relates to organizational choice for its implementation and explains if and how different SGAs emerge. Cantonal administrations follow different approaches to address challenges, such as ambiguity, as a problem of organizational choice, the 2030 agenda and steering for SD. While the cantonal administration in Aargau organizes internal collaboration to integrate the 2030 agenda in its internal governance regime, the canton Basel-Stadt opts against an explicit implementation to avoid ambiguity entirely. For the translation of the 2030 agenda from the global to the sub-national level of governance this confirms that very different paths exist. Despite the findings for the application of concepts for steering for SD, the transformation of the internal governance towards sustainability in public administrations through the 2030 agenda remain a challenge.

Selbstständigkeitserklärung

Ich erkläre hiermit, dass ich diese Arbeit selbstständig verfasst und keine anderen als die angegebenen Hilfsmittel benutzt habe. Alle Stellen, die wörtlich oder sinngemäss aus Quellen entnommen wurden, habe ich als solche kenntlich gemacht. Mir ist bekannt, dass andernfalls der Senat gemäss dem Gesetz über die Universität zum Entzug des auf Grund dieser Arbeit verliehenen Titels berechtigt ist.

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