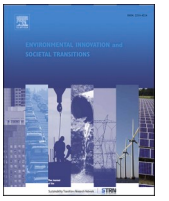
Environmental Innovation and Societal Transitions 61 (2026) 101147

Contents lists available at ScienceDirect

Environmental Innovation and Societal Transitions

journal homepage: www.elsevier.com/locate/eist



Research article

The impact of valuation patterns on sustainability transitions: The case of circular economy in Switzerland

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ARTICLE INFO

Keywords:
Sustainability transition
Institutional logics
Valuation
Circular economy

ABSTRACT

Recent calls have emphasized the need to better understand the influence of normative aspects on transition processes. This is because potential solutions, such as technologies or new systems, are not inherently sustainable. This article examines the role of values in sustainability transitions by analyzing Switzerland's political discourse on the circular economy. The study employs the valuation pattern framework and sociotechnical configuration analysis to examine 148 Swiss parliamentary requests. The valuation pattern framework, grounded in institutional logics theory, investigates how subjects, objects, and practices interact to realize values. Transitions are processes in which different valuation patterns compete for dominance. Thus, valuation patterns provide a robust approach for analyzing how values influence socio-technical transitions. The findings show that Switzerland's circular economy discourse is primarily shaped by a valuation pattern grounded in market logic, prioritizing ecological efficiency and economic growth. However, this narrow focus neglects transformative values, thereby undermining the potential for a truly sustainable circular economy. Moreover, the proposed practices for achieving these values lack transformative potential. By demonstrating that prevailing value paradigms constrain the transformative potential of sustainability transitions, this article advances understanding of normative aspects in transition processes.

1. Introduction

The ongoing ecological crisis (IPCC, 2023; Richardson et al., 2023) has heightened concerns about the pace and effectiveness of the global transition to sustainability. Despite substantial international efforts, evidence suggests that the transition is progressing at too slow a rate (United Nations, 2024). This sluggish pace calls into question the adequacy of prevailing approaches to sustainability and the assumptions that underpin them (Antal and van den Bergh, 2016; Feola et al., 2021). Although technological advancements and innovation are undoubtedly critical components of any transition towards sustainability, these cannot be the sole solution (Sætra, 2023) because they can also have negative or unforeseen effects (Coad et al., 2021). Furthermore, solutions for social transformation extend beyond the domain of technology (Jeannerat and Crevoisier, 2022; Loorbach et al., 2020). For example, while sales of electric vehicles rise, so do sales of energy-intensive vehicles, such as sports utility vehicles. Therefore, the existence of potentially sustainable technologies alone does not directly or ineluctably lead to the corresponding transitions. To achieve such a transformation,

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https://doi.org/10.1016/j.eist.2026.101147
Received 4 March 2025; Received in revised form 14 May 2026; Accepted 15 May 2026
Available online 20 May 2026

overarching factors such as lifestyles, social values, and economic principles must also be addressed (Markard et al., 2023).

In sustainability transition research (STR), this has led to a number of recent calls for a better understanding of normative aspects and their influence on transition processes (Binz and Castaldi, 2024; Feola, 2020; Markard et al., 2020, 2023; Rosenbloom, 2020). Responding to these calls, the present article examines the influence of normative aspects on transitions by analysing how values influence transitions. Values are of particular interest because they are normative and can be viewed as the foundation of the conflictual nature of transitions (Köhler et al., 2019). A transition typically involves contestation between conflicting values over both material change and symbolic meaning (Kenis et al., 2016; Kenis and Lievens, 2014; Swyngedouw, 2013, 2015, 2018). Conversely, the absence of antagonistic values and the presence of a prevailing consensus and non-negotiable truths indicate a lack of transformative potential (Blühdorn and Deflorian, 2021; Brown, 2015; Kenis, 2019). Sustainable change requires that non-negotiable truths are challenged and that the systems that have led to the current state of unsustainability are transformed (Blühdorn, 2013). To better understand how conflicting values and corresponding practices influence transition processes, the conceptual and analytical framework proposed by Friedland and Arjaliès (2021), which employs the notion of institutional logics to examine values and corresponding practices, is applied.

This article examines these questions by analysing the national political discourse on the circular economy in Switzerland. Despite its popularity, the concept of the circular economy remains contested and lacks a clear definition (Calisto Friant et al., 2020; Kirchherr et al., 2017, 2023). This ambiguity enables various actors to align the concept their interests (Calisto Friant et al., 2020), thereby influencing its transformative potential (Velenturf and Purnell, 2021). In Switzerland, companies, civil society, and political actors have all sought to shape the discourse on the circular economy. Given that the Swiss parliament reflects public debate (Helfer et al., 2021; Mueller and Linder, 2017), the national political discourse on the circular economy in Switzerland provides a suitable for applying Friedland & Arjaliès' institutional logics approach to capture the influence of values on transition processes. To explore this, this research employs sociotechnical configuration analysis (STCA) (Heiberg et al., 2022; Miörner et al., 2022; Yap et al., 2023). This approach allows a nuanced understanding of how various actors in the national political discourse attempt to shape the circular economy in alignment with their particular values. The case study identifies two main findings. First, national political discourse in Switzerland gradually converges towards a dominant conception that aligns the circular economy with prevailing market logic. Second, this conception lacks transformative values and practices, which consequently render the envisioned circular economy unsustainable.

This paper is structured as follows. The next section reviews research on normative processes in sustainability transitions. Section 3 introduces the theoretical framework. Section 4 outlines the case study, methodology, and data. Section 5 reports the empirical results on values related to the circular economy, their influence on implementation and support, and their evolution. Section 6 discusses the findings and their theoretical and practical implications. Section 7 concludes the paper.

2. Literature review: competing values in sustainability transitions research (STR)

STR's primary question is about how radical changes in socio-technical systems can meet global challenges (Köhler et al., 2019; Markard et al., 2012; Nesari et al., 2022; Savin and van den Bergh, 2021; Truffer et al., 2022). Such changes, referred to as transitions, are inherently political and are initiated, implemented, and legitimized through political processes (Meadowcroft, 2011). Focusing on the politics of transitions also involves analysing which visions of change prevail (Köhler et al., 2019). The following literature review presents several perspectives on the politics of transitions and encompasses research on policy content, political processes, and the role of institutions. The main question is how these various perspectives capture the influence of different visions on transitions. The article then identifies existing research gaps and explains the potential of an approach that focuses on the role of values in transitions to help to close these gaps.

2.1. Two political approaches in STR

Policy analysis, defined as the analysis of the creation and the organization of policy content (Sager, 2007), is a key element to better understanding the contested nature of transitions (Köhler et al., 2019; Loorbach et al., 2017). These studies frequently employ established frameworks such as the discourse coalition approach (Hajer, 2005) and advocacy coalition framework (Jenkins-Smith et al., 2018; Sabatier, 1988) to examine worldview influences on policy (Alvarado et al., 2021; Dryzek, 2021; van Dijk, 2006).

Research demonstrates that storylines, which are used to advance specific policies, are influenced directly by factors such as resource mobilization and key actor involvement (Boon and Bakker, 2016; Hodson et al., 2016; Pineda and Jørgensen, 2016) and indirectly through overarching events (Kern and Rogge, 2018; Rosenbloom et al., 2016). The content of transition narratives typically emphasizes comparable positive outcomes such as climate protection, the creation of employment opportunities,and economic growth to substantiate their arguments (Raven et al., 2016), whereas incumbent actors use other narratives to impede transitions (Geels, 2014; Smith and Kern, 2009).

Therefore, policy analysis approaches have the potential to illuminate influences such as worldviews and narratives on policy formulation and therefore also on transition efforts (Gabehart et al., 2022; Kern and Rogge, 2018; Markard et al., 2016; Rosenbloom et al., 2016). Nonetheless, this potential remains largely untapped within the advocacy coalition framework (Weible et al., 2020). Moreover, the primary focus of discourse analysis is not on ideologies and worldviews (Hajer, 2006).

In addition to policy research, other aspects, including power, actors and their strategies, relationships and actions, and political processes in general, have recently become the focus of STR (Avelino et al., 2016; Köhler et al., 2019). Johnstone and Newell (2018) refer to this development as the 'political turn'. This refer to the broadening of STR's focus, which has traditionally been on studying

the support and promotion of sociotechnical niches, to include contextual and regime factors. Within this 'political turn', four themes have been identified as particularly prevalent: elite politics, incumbency, power, and institutions.

Studies of elite politics and incumbency have focused on the resistance of incumbent actors to transition (Berggren et al., 2015; Fischer and Newig, 2016; Ford and Newell, 2021; Geels, 2014; Johnstone and Newell, 2018; Novalia et al., 2021; Penna and Geels, 2012; van Mossel et al., 2018). Furthermore, the way states deal with such resistance by incumbent actors has also been subject to analysis (Johnstone and Newell, 2018; Swilling et al., 2016), and research has also examined how power influences transitions (Kalt, 2024). Power is predominantly viewed as the capacity to mobilize or immobilize other actors, resources, and institutions for specific objectives (Avelino, 2017; Avelino et al., 2024; Pineda and Jørgensen, 2016; Torrens et al., 2019) and is distributed unevenly across various scales, sectors, and actors (Avelino and Wittmayer, 2016). In essence, these studies primarily examine how actors position themselves in favour of or against transition processes and the means they employ to do so.

With the political turn, STR has also shown increasing interest in institutional theory approaches (Fuenfschilling, 2019), although the application of these approaches remains limited (Binz et al., 2025; Köhler et al., 2019). Given the use of the institutional logic approach in this article, the following section reviews recent applications of institutional logics in STR. Recent studies on the role of institutional logics in transitions indicate that institutional regime structures determine the scope of legitimate action (Fuenfschilling and Truffer, 2016; Misleh et al., 2024). Consequently, the integration of innovations in the dominant regime is hindered by mismatching logics (Lindberg, 2022; Smink et al., 2015; Van den Berghe and Wieczorek, 2022). As studies by Runhaar et al. (2020) and van Summeren et al. (2023) demonstrate, altering a prevailing regime requires not only challenging the prevailing logic but also integrating an alternative logic into it to facilitate its stabilization. In contrast, Frank et al. (2024) emphasize the significance of external shocks in creating opportunities for alternative logics to disrupt the prevailing regime. Finally, a further strand of research regarding institutional logics demonstrates the significance of institutional work in popularizing innovations (Binz et al., 2016; Van Gaubergen et al., 2023) and how actors navigate the various logics present in their respective contexts (Hacker and Binz, 2021; Heiberg and Truffer, 2022). Consequently, research on institutional logics tends to concentrate on how different logics structure a sociotechnical regime and how the interaction between these logics changes the regime (Frank et al., 2024). In line with Truffer and Heiberg (2022), the present analysis emphasizes the internal dynamics of institutional logics, particularly the values and practices that constitute them.

2.2. Beyond politics: the foundational values at stake

Despite the growing recognition of the contested nature of sustainability transitions, the criticism persists that STR pays too little attention to the core of these conflicts: the underlying ideologies, values, and truths (Avelino et al., 2016; Kenis et al., 2016; Köhler et al., 2019; Meadowcroft, 2007; Newell, 2020; Swyngedouw, 2010). This is particularly relevant because recent studies have suggested that normative factors can influence transition processes (Feola, 2020; Feola et al., 2021; Kok, 2023; Markard et al., 2023; Meadowcroft, 2011; Patterson et al., 2017).

The literature presented in Section 2.1 substantiates the view that this criticism has some merit. Although the application of policy analysis frameworks has been shown to be effective in the uncovering of the narratives, storylines, and attitudes of actors in relation to specific policy fields, policy analysis approaches tend either to have problems in capturing underlying values (Schlaufer et al., 2022; Weible et al., 2020) or to not explicitly focus on them (Hajer, 2005, 2006).

In research on politics, values are not directly examined, and the focus lies primarily on the strategies, processes, and tactics of actors (Sager, 2007). And although such strategies, processes and tactics are the result of underlying values, these values are not explicitly addressed in such research. Moreover, the research on institutional logics has mainly focused on the interaction between various logics in institutional fields rather than on the values underlying these logics (Heiberg and Truffer, 2022). Overall, the existing body of research on sustainability transitions can be considered to have a blind spot on values.

This paper addresses this important gap, because transitions are processes in which conflicting values struggle for their material and symbolic realization (Kenis et al., 2016; Kenis and Lievens, 2014; Swyngedouw, 2013, 2015, 2018). To achieve a transition towards sustainability, non-negotiable truths and associated sociotechnical regimes must be transformed, which implies a conflict between existing and new values (Blühdorn, 2013; Blühdorn and Deflorian, 2021; Brown, 2015; Kenis, 2019). Therefore, it is essential to understand how divergent values and their realizations influence transitions to enhance our understanding of the intricacies of transition processes and their inherently conflictual nature (Kenis et al., 2016). In doing so, we can identify factors that contribute to the success or failure of current transition processes (Feola, 2020; Kok, 2023; Swyngedouw, 2015).

To summarize, the political turn in STR involves a substantial transformation in the conceptualization of sustainability transitions and indicates the need to explore the policy mechanisms and the broader dynamics of the politics that shape these processes. Therefore, the need for a more nuanced understanding of how conflicting values and their realization affect transition outcomes remains relevant. Section 2.3 introduces an approach to examining how values influence transitions through the lens of competing institutional logics.

2.3. Exploring values through institutional logic

According to the standard definition, institutional logics are socially constructed and historically evolved patterns of material practices, assumptions, values, beliefs, and rules (Thornton and Ocasio, 1999). The present article advances the proposition that the institutional logic approach, particularly as advanced by Friedland and Arjaliès (2021), represents a compelling framework for analysing the role of values in socio-technical transitions. Therefore, this approach enables us to grasp the contested nature of transitions

mentioned above.

As posited by Friedland and Alford (1991) and Friedland (2012), institutional logics are to be understood as culturally anchored systems of meaning to which values are central. The values of an institutional logic form the basis for its ontology, justify its rules, and constitute the power of a logic. Moreover, identification with these values constitutes a pivotal element in preserving the logic and extending its sphere of influence (Friedland, 2012). Friedland and Arjaliès (2021) define institutional logic as the regular and consistent application of practices by subjects with the aim of realizing certain values. Accordingly, these values are the driving force and foundation of the institutional logic.

Fig. 1 represents the elements of an institutional logic. The left-hand side of the figure demonstrates how subjects, practices, and objects form an interrelated trinity both anchored in and realizing the values of an institutional logic. The illustration on the right shows a simplified example of this structure. The representatives of the institutional logic pursue the value of economic growth. This value is realized by the object circular economy, the subject company, and the practice supporting circular business models. The circular economy and the implementation of circular business models in companies generate economic growth. Note that the values and practices of an institutional logic are co-constitutive: the values are both 'actionable because believable' and 'believable because actionable' (Friedland, 2025; Friedland et al., 2014; Friedland and Arjaliès, 2021).

The interconnection between values and practices is enabled by the presence of objects (Friedland, 2012; Friedland and Arjaliès, 2021). The relationship between these objects and the institutional logic is such that the effects of the object are contingent on the values, and conversely, the values are the rationale for the existence of the object. This results in a dual grounding, both ontological and teleological. A typical example would be the ballot box, which is strongly linked to the value of popular sovereignty (Friedland, 2018). The centrality of the object is achieved by means of purposeful action. This involves clarifying how the object is understood, adopted, and used (Friedland, 2018; Friedland and Arjaliès, 2021).

This focus on values and their materialization through specific objects is particularly suitable for examining transitions because transitions require radical social changes in sociotechnical systems (Loorbach et al., 2017), which include changing practices (Markard et al., 2012), often triggered by new objects, including technologies, concepts, and paradigms (e.g. Fuenfschilling and Truffer, 2016; Geels, 2004). And because new institutional logics require new constellations of subjects, practices, and objects (Friedland, 2018), the successful combination of new values with new objects is therefore central to a transition. This conceptualization can be used to consider how new objects can change values. Fig. 2 offers a simple illustration of how two disparate institutional logics may attempt to realize the values of their own institutional logic through their designs of the circular economy. The values impact the realization measures and actors involved. The two logics conflict with each other, as symbolized by the lightning bolt in the middle of the figure.

Accordingly, this conceptualization of institutional logics appears to offer a potential avenue for analysing the impact of values on transitions and thus helps to address the research gap.

3. Uncovering values: the four dimensions of valuation

Friedland and Arjaliès (2021) conceptualize the trinity of subject, practice, and object as a production function for the values of an institutional logic. Consequently, the effectiveness of the institutional logic depends on the proper functioning of the production functions; otherwise, the values cannot be realized in their desired end state. The failure of production functions has the capacity to pose a threat to the value produced by the function and thus to the entire institutional logic (Friedland, 2018; Friedland and Arjaliès, 2021). The production functions are secured by deeming the elements of the production function to be valuable for their contribution to the realization of the values of the institutional logic. At the same time, the elements of the production functions are rated by their effectiveness in helping to realize the values.

As posited by Friedland and Arjaliès (2021, 2024) and Arjaliès (2021), this realization of an institutional logic through the production function is predicated on a recurrent pattern, one of valuation.[1] This pattern can be divided into four interrelated dimensions: institution, production, territorialization, and evaluation (Arjaliès, 2021; Friedland, 2017, 2025; Friedland and Arjaliès, 2021, 2024). Analysing these dimensions helps identify the values pursued by an institutional logic, the measures proposed or actually used to realize these values, the actors involved in realizing the values, and the measurement tools best able to assess their effectiveness (Arjaliès, 2021; Friedland and Arjaliès, 2021, 2024). In the following, the four dimensions are described.

Institution focuses on the main question of to what end (Friedland, 2017). The conviction that a certain value becomes valuable and realizable is established. The realization of the value becomes imaginable (Arjaliès, 2021; Friedland and Arjaliès, 2021). *Production* defines the manner in which value is realized (Friedland, 2017). It defines the objects and practices for the realization of value (Arjaliès, 2021; Friedland and Arjaliès, 2021). *Territorialization* is about establishing who or what belongs and where the limits of validity lie. It is about defining the boundaries of significance of an institutional logic (Friedland, 2017; Friedland and Arjaliès, 2021). *Evaluation* assesses the contribution of any subject, practice, or object to the realization or sustenance of the value (Arjaliès, 2021; Friedland, 2017; Friedland and Arjaliès, 2021).

These four dimensions can be illustrated with the example of Bitcoin: Proponents of Bitcoin subscribe to the value of self-custody and therefore the belief that financial exchange does not require intermediaries (institutions). This value is realized through the implementation of blockchain technology (production). Consequently, financial transactions are no longer constrained by specific locations or actors and become universally applicable (territorialization). The use of bitcoin, along with its value, functions as a

[1] Friedland and Arjaliès (2021) do not refer to a pattern, but rather to a grammar or infrastructure. The term 'pattern' was deliberately chosen for the sake of clarity without compromising the notion of regularity.

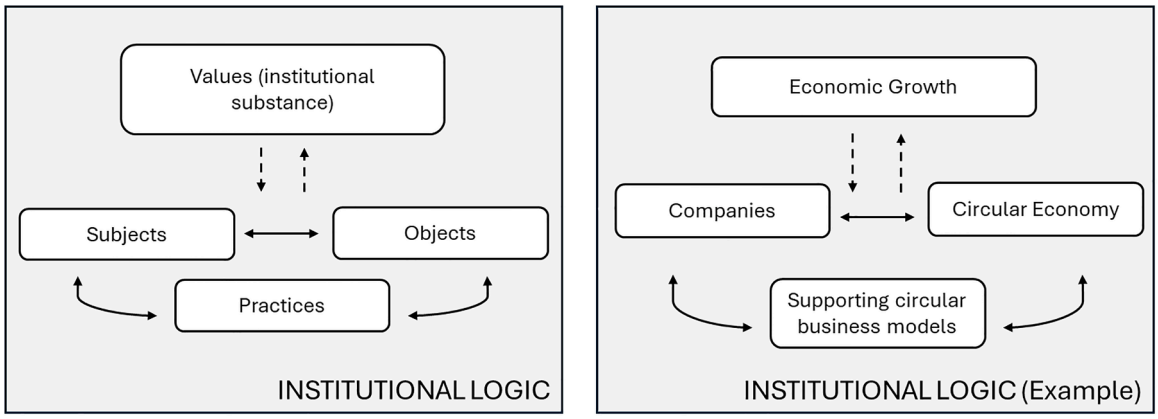


Fig. 1. Institutional logic (Friedland et al., 2024).

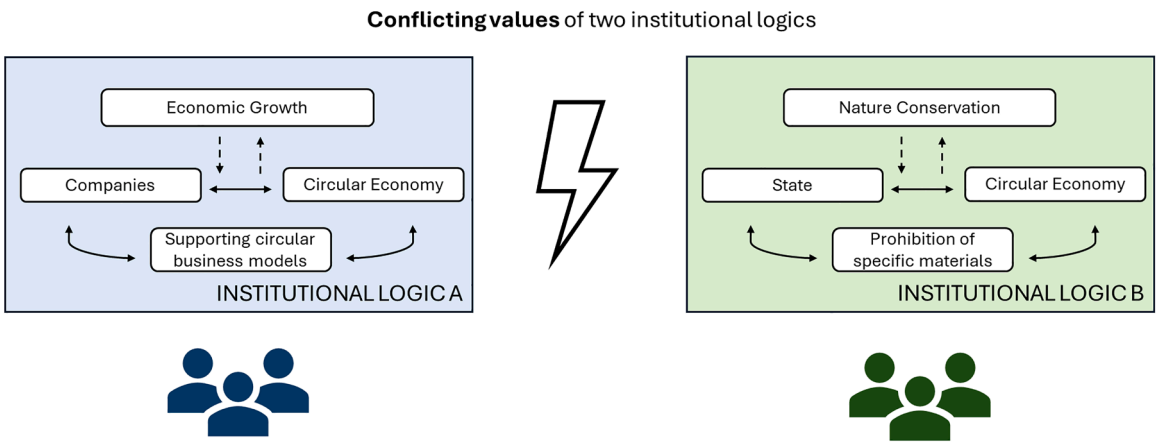


Fig. 2. Institutional logics as conflicting values.

criterion for effective implementation (evaluation) (Arjaliès, 2021).

To function continuously, the production functions of institutional logics need to be adapted. This is achieved by replacing elements in the production functions. The need for transformation is particularly evident when new, unclaimed subjects, practices, or objects emerge. In such moments, various institutional logics attempt to incorporate the new element into their logics and thereby claim it (Friedland, 2017; Friedland and Arjaliès, 2021). This process of claiming is open to contestation, failure, and even the downfall of logics. The contest between divergent values for supremacy can now be seen as analogous to the process of contestation needed for transitions.

Combining this assumption with the fact that novel objects and practices such as new technologies and consumption patterns are highly pertinent to transitions (Franco-Torres et al., 2020; Fuenfschilling and Truffer, 2016; Geels, 2004) suggests that these dimensions provide an appropriate analytical framework to analyse how new technologies, practices, and concepts interact with existing institutional logics. This means that they enable analysis of whether new production functions emerge and displace old ones or whether existing production functions successfully absorb the new subjects, practices or objects. By determining whether old production functions and the associated visions are questioned, challenged or even displaced, it is possible to determine whether transition processes are truly contested.

The following sections examine these four dimensions in the national political discourse on the circular economy in Switzerland. The analysis considers whether these dimensions deviate from the prevailing status quo in their configuration and therefore can be understood as conflicting institutional logics. If this is the case, the process triggered by the concept of the circular economy can be described as transition. Concurrently, this analysis addresses whether the conceptual framework presented is a fruitful approach to better understanding transition processes. Section 4 outlines the empirical approach.

4. Data and method

This article uses the national political discourse on the circular economy in Switzerland as its case study. The discourse was analysed through all parliamentary procedural requests referring to the circular economy. The national political discourse on the

circular economy is an ideal case study for two reasons.

First, the concept of the circular economy is contested and lacks a clear definition. This conceptual ambiguity enables various actors to interpret and align it with their specific interests (Calisto Friant et al., 2020; Kirchherr et al., 2017, 2023) However, its long-term sustainability is dependent on its specific configuration and the values it integrates (Corvellec et al., 2022; Geissdoerfer et al., 2017; Nikolaou et al., 2021; Velenturf and Purnell, 2021). Consequently, the circular economy can be seen as a potential central object in the development of a new institutional logic as a value for the future economy and as a practice of organizing economic activities.

Second, the Swiss context provides a well-suited empirical setting for examining the political discourse on the circular economy. Early efforts to promote a resource-efficient economy in 2016 were not successful, particularly when compared to developments within the European Union, such as the Green New Deal and the Circular Economy Action Plan. However, several subsequent developments have shaped the national discourse. These include the establishment of the Circular Economy Switzerland platform in 2018 by companies and civil society organizations, the climate demonstrations of 2019 with 100,000 participants, and the national elections in the same year. These events contributed to a closer political focus on the circular economy, culminating in the 2020 parliamentary initiative to anchor the concept in environmental protection legislation. The legislative reform was enacted in 2024 and reflects the increasing relevance of the circular economy in Switzerland.

The data used in this paper consists of parliamentary procedural requests, which offer a suitable lens through which to observe the prevailing political and social discourse on the circular economy. In Switzerland's direct democratic system, parliament acts as a forum that reflects public debates and incorporates a broad range of societal perspectives from which to address citizens' thematic preferences appropriately (Helfer et al., 2021; Mueller and Linder, 2017). In this process, parliamentary procedural requests fulfil multiple functions beyond their legislative intent. They serve to identify emerging issues, set political agendas, build political profiles, and support election campaigning (Hänni et al., 2024; Mueller and Linder, 2017).

In addition, the lobbying practices associated with Switzerland’s system facilitate the integration of perspectives from civil society and the private sector into parliamentary procedural requests (Maring et al., 2023).Finally, an analysis of the responses to the parliamentary procedural requests enables an examination of the executive's view, thus providing insight into the federal administration's role, which is a central component of Switzerland's political system (Ladner et al., 2019).

All parliamentary procedural requests submitted since 1995 are documented in Curia Vista, the official database of parliamentary proceedings. A full-text search for the term “circular economy” yielded 148 parliamentary procedural requests as of the end of June 2024, all of which were included in the analysis. Fig. 3 illustrates the increasing prominence of the circular economy in political discourse, beginning with its first mention in 2010 and followed by a marked increase in requests from 2019 onward.

The analysis was conducted using sociotechnical configuration analysis (STCA), a method developed by Heiberg et al. (2022). STCA[2] is a semiquantitative approach that ‘captures how individual organizations evaluate technologies, infrastructures, policies, regulations or sectoral paradigms and norms’ (Heiberg et al., 2022; Section 3, paragraph 3). It does so by examining worldviews, narratives, values, and practices shared by various actors (Miörner et al., 2022). Although still a relatively new method, STCA has already been successfully applied to identify actor value orientations in prior studies (Heiberg and Truffer, 2022; Yap et al., 2023), thus indicating its applicability for the current purpose.

In this study, STCA is used to analyse how various organizations construct storylines around the circular economy as a paradigm. These include political parties, parliamentary commissions, and the federal executive, which includes the administration. The circular economy constitutes the central object under evaluation, and the story lines are examined along the four dimensions of the valuation pattern: institution, production, territorialization, and evaluation. This enables an assessment of whether distinct valuation patterns, and consequently divergent values, are attributed to the circular economy.

The coding scheme was developed through an iterative process and is grounded in the four dimensions of the valuation pattern. Statements on the values pursued through the circular economy were assigned to the institution code, and statements concerning the realization of these values were assigned to the production category. Statements regarding objects and subjects that are generally associated with values and their production were given the territorialization code. Finally, the procedures for determining the realization of the values were assigned to the evaluation code. This approach follows that of Arjaliès (2021).

To facilitate the analysis, the concepts related to the four dimensions were further classified into four categories: economic, ecological, social, and, for the territorialization code, public. The three main categories reflect the circular economy's claim to create environmental quality, economic prosperity, and social equity (Kirchherr et al., 2017). The fourth, public, aims to encompass all stakeholders. Therefore, each dimension has four categories, each of which has specific subcodes that were derived inductively. Each statement was also attributed to a specific actor, which included the political parties, parliamentary commissions, and the executive, which includes the federal administration (see Appendix for the code tree).

To analyse which valuation patterns occur in the discourse, the Jaccard similarity coefficient was used. This coefficient analyses the co-occurrence of concepts by measuring the proportion of joint mentions of each pair of concepts to specific actors relative to the total number of mentions of each of the two concepts in the document stock (Leydesdorff, 2008; Park et al., 2024; Socio-Technical Configuration Analysis (STCA), 2026). The Jaccard similarity coefficient is based on unweighted, normalized data, which prevents results from being influenced by the frequency of concept mentions within individual documents. However, the measure remains sensitive to document length, as longer or denser parliamentary procedural requests can introduce a higher number of co-occurrences, particularly during periods of low volume of parliamentary procedural requests. The resulting Jaccard similarity coefficients were then

[2] More detailed information and a manual for using STCA are available on the portal https://stca.guide/.

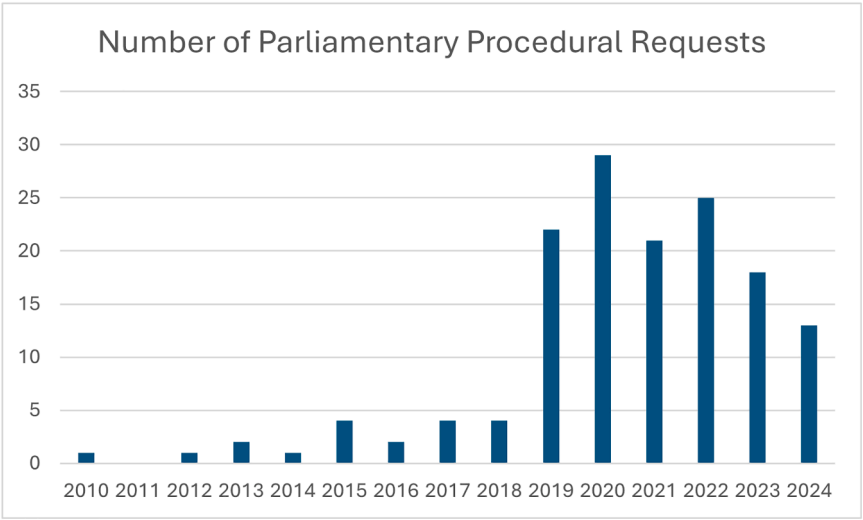


Fig. 3. Number of parliamentary procedural requests per year.

used to visualize concept congruence networks with Visone software. For better readability of these networks, the alignment between two concepts is represented by the colouring of the link between them. Darker green line indicate a higher Jaccard similarity. The frequency of a concept's use is represented by the width of the node. Nodes of concepts used more frequently are larger according to the number of mentions. Finally, the networks were clustered using the Visone backbone layout. This algorithm identifies cohesive groups in the graph and visualizes them as sparse groups (Backbone Layout - visone manual, n. d.). This method enables possible coherent valuation patterns to be identified.

By utilizing structurally consistent textual data, STCA enables the identification of temporal changes in the configurations under analysis (Heiberg et al., 2022). This approach facilitates the incorporation of the potential influence of overarching societal events into the analysis. In line with the societal developments described above in the national discourse on the circular economy, the analysis was divided into three periods: before 2019, when the circular economy was an emerging concept in society; 2019–2020, encompassing the national election and the peak of the climate movement; and from 2021 onwards, covering the COVID-19 pandemic years and the Ukraine war, which introduced new concerns regarding international supply chains and security.

5. Results: identifying patterns of valuation

This section presents the valuation patterns that emerged and their evolution over time within the national discourse on the circular economy. Results for each period are shown in Figs. 4–6, which display concept-congruence networks across all dimensions of the valuation pattern. Node size corresponds to the frequency with which each concept was coded, while link colour indicates the proximity between concepts as measured by Jaccard similarity (darker colour indicates stronger link). The improve readability, links with a Jaccard similarity value below 0.7 are omitted. A legend for the graphical elements is provided at the bottom of each figure. Identified valuation patterns within the time periods are delineated with a dotted line, and the most frequently mentioned concepts within each dimension are highlighted with a black dotted line.

Each visualized network is accompanied by bar charts. The bar chart adjacent to each figure displays the five most frequently used concepts in each valuation pattern dimension for the respective period. Bar charts located below the figures illustrate the actor constellation for each dimension, analysed for every identified valuation pattern in each period. The analysis is organised according to the four dimensions of a valuation pattern – institution, production, territorialization, and evaluation – as well as the actor constellations of the debate, examined chronologically across three periods.

5.1. Institution: from dichotomy to compromise

Prior to 2019 (Fig. 4), the institution dimension was marked by a clear dichotomy between economic and ecological orientations. Pattern A conceptualizes the circular economy as a means to promote economic growth and competitiveness, supported by adjacent values as added value and the promotion of industrial location. Pattern B links the circular economy to climate change mitigation, while Pattern C adopts an ecological conceptualization focused on reducing ecological harm, conserving natural resources, and promoting resources efficiency. Consequently, the institution dimension reflects distinctly separate conceptualizations of the circular economy during this period.

From 2019 to 2020 (Fig. 5), the previously distinct economic and ecological framings began to converge into a single dominant pattern (Pattern A), which incorporates ecological values such as resource efficiency, conservation of natural resources, and climate mitigation alongside economic values such as added value, competitiveness, and profitability. Although ecological values are more

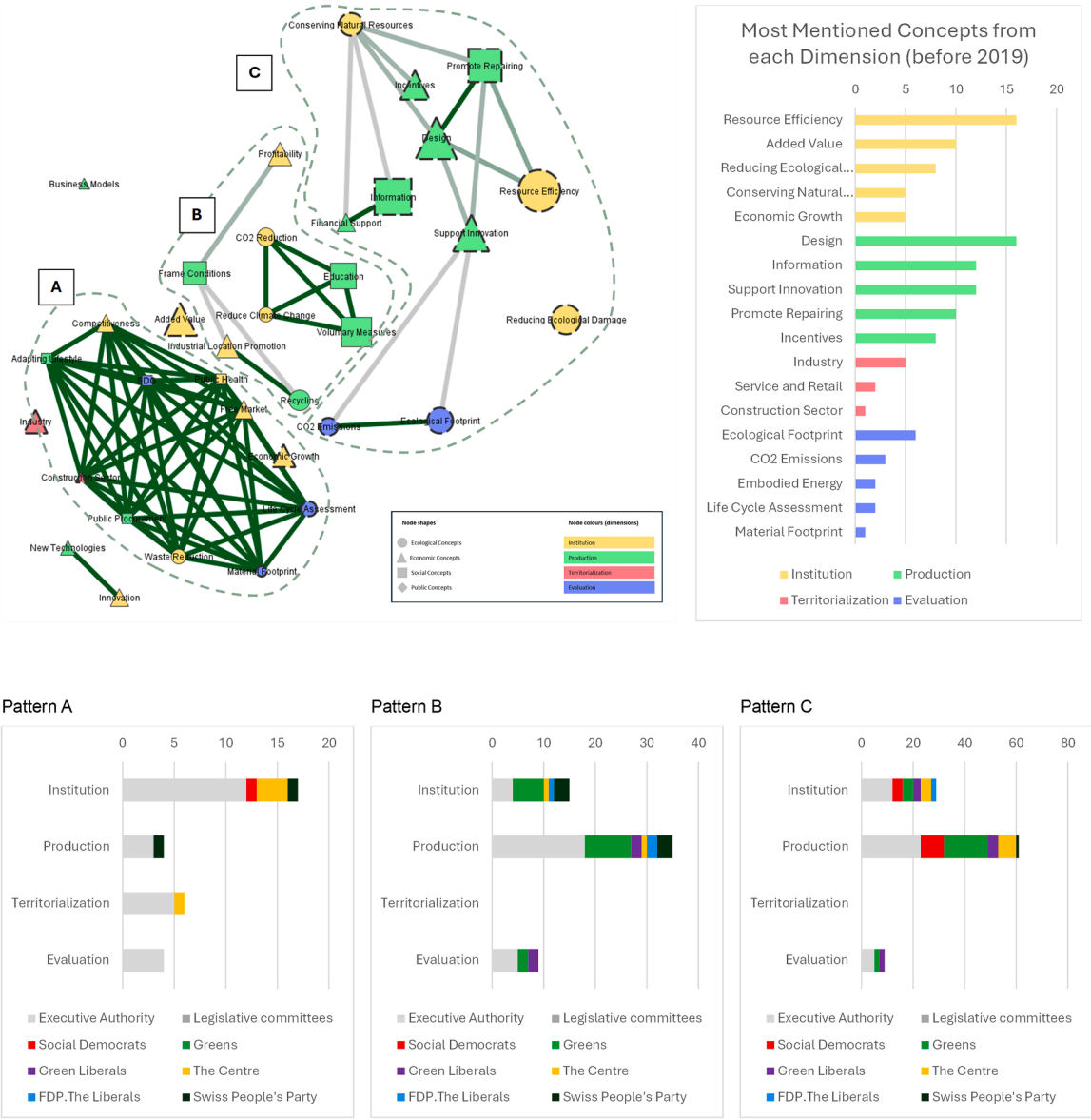
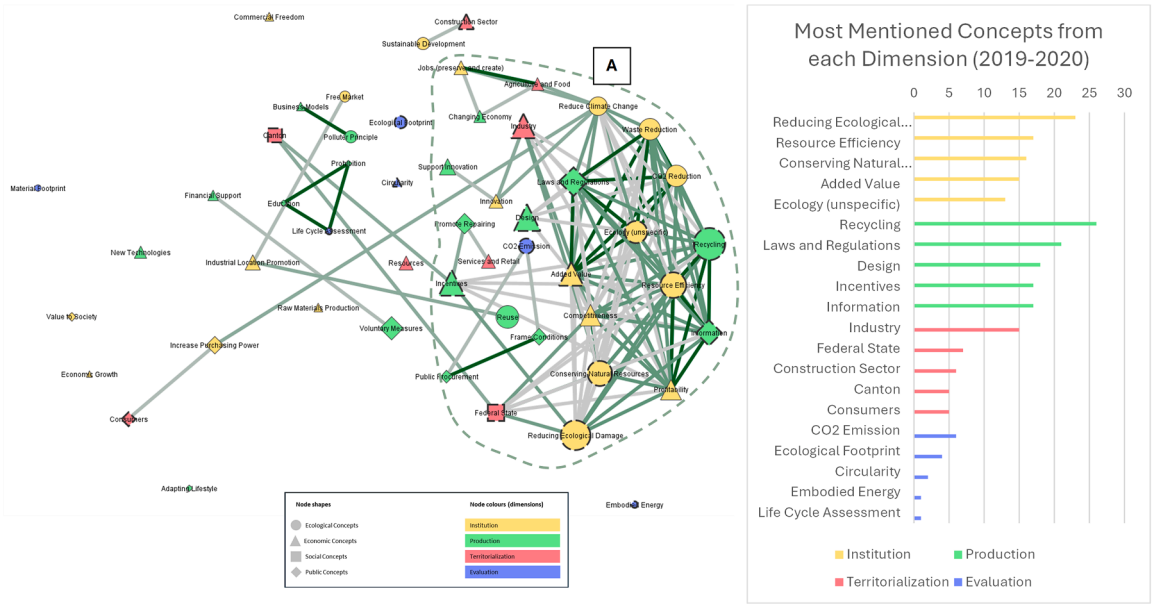


Fig. 4. Concept congruence network of all four dimensions of the valuation pattern (Jaccard similarity; backbone layout); parliamentary procedural requests issued prior to 2019.

frequent and prominent, the resulting pattern is pluralistic rather than coherent. The presence of numerous concepts within the institution dimension suggests ideational overload.

In the most recent period (Fig. 6), the development of the institution dimension has consolidated. The dominant pattern (Pattern A) continues to integrate both ecological and economic values. Although ecological values remain prominent, with four of the five most frequently mentioned values being ecological, economic values now predominate overall. This shift indicates a change from the previous period. Notably, two frequently mentioned values – conserving natural resources and unspecified ecological effects – are situated outside Pattern A but remain linked to its concepts. Climate change mitigation is also positioned outside Pattern A. Ecologically resource efficiency and the reduction of ecological damage and CO2 emissions have become the primary objectives. Alongside Pattern A, only one additional pattern, labelled Pattern B, emerges. Even though Pattern B also combines ecological and economic values, these are less conventional, emphasizing general sustainable development and increasing public purchasing power. Pattern B frames the circular economy as a means to promote broader sustainable development and enhance societal economic well-being by encouraging the use of longer-lasting, repairable products, thereby reducing expenditures on daily-use goods. Pattern B thus contrasts with Pattern A, which emphasizes more conventional values and practices. Other pattern-like structures in Fig. 6 serve as bridge concepts between Pattern A and Pattern B or, according to actor analysis, are promoted by a single actor in a specific statement.



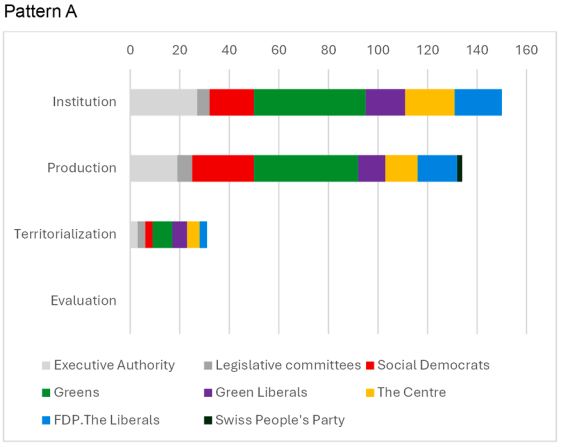


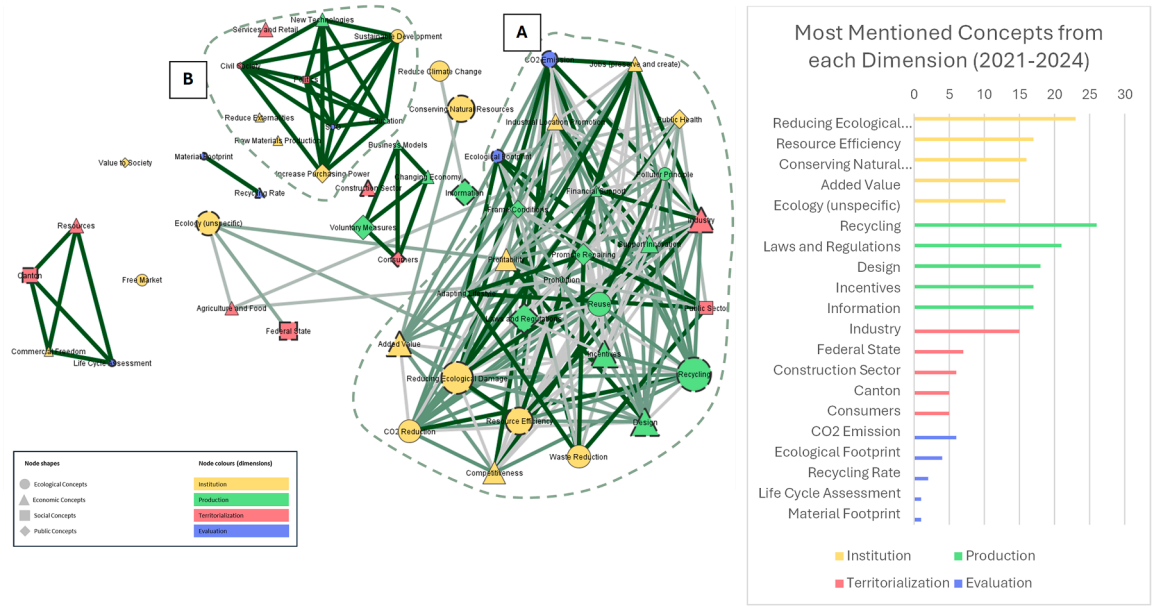
Fig. 5. Concept congruence network of all four dimensions of the valuation pattern (Jaccard similarity; backbone layout); parliamentary procedural requests issued from 2019 to 2020.

Overall, the institution dimension transitions from diverse and specific conceptualizations of the circular economy to a more comprehensive, albeit less specific, consensus. Few alternative conceptualizations remain. Economic values are gaining relevance, while ecological values are increasingly focused on resource efficiency.

5.2. *Production: stability with shifts in emphasis*

Before 2019 (Fig. 4), the production dimension is most prominently represented in Pattern C, which emphasizes support for innovation, financial incentives, product design, information dissemination, and the promotion of repair as key strategies to achieve the pursued ecological goals. Pattern B centres on general education and voluntary initiatives. In Pattern A, the production dimension is largely absent, as confirmed by the actor bar chart for this cluster. Concepts from this dimension are significantly less prominent than in the other two patterns. Overall, the proposed measures during this period focus on upstream interventions, shaping products and behaviours before they enter the waste stream.

From 2019 to 2020 (Fig. 5), as with the institution dimension, the production dimension also began to consolidate. Recycling appears as the dominant concept, while laws and regulations to promote the circular economy – though generally nonspecific and excluding prohibitions – also gain importance. Incentives, product design, and information provision remain relevant, but support for innovation and repair becomes less prominent. Although additional concepts persist, they are more weakly connected to the dominant pattern.



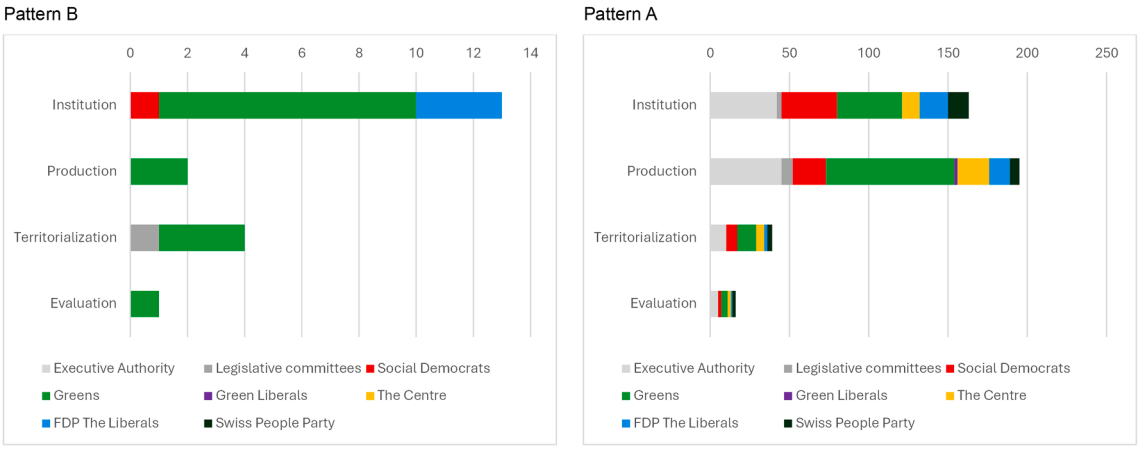


Fig. 6. Concept congruence network of all four dimensions of the valuation pattern (Jaccard similarity; backbone layout); parliamentary procedural requests issued from 2021 to 2024.

From 2021 onwards (Fig. 6), in the main pattern (Pattern A), the same five core concepts from the previous period, remain central. The primary development is the elevation of previously peripheral concepts, especially the promotion of reuse and repair as habitual practices, to a more central role within the pattern as part of the ongoing consolidation. In Pattern B, as in the institution dimension, alternative concepts also emerge during this period. In this pattern, new technologies and educational measures are expected to achieve the desired outcomes.

Overall, the production dimension also consolidates over time into a stable consensus. The primary change is the declining importance of repair as a concept, while recycling becomes increasingly central.

5.3. *Territorialization and evaluation: partly conceptualized*

In general, concepts from the territorialization and evaluation dimensions are mentioned far less frequently than those from the institution and production dimensions. Consequently, these two dimensions are analysed together.

Before 2019 (Fig. 4), responsible actors were named only in Pattern A, which identifies the industry and the construction sector as key actors for realizing its economic goals. In Patterns B and C, responsible actors are absent. The dominant evaluative measures during this period are the ecological footprint and CO2 emissions, both of which are associated with Pattern C, to a lesser extent, Pattern B. Pattern A also includes an evaluative measure related to material efficiency and incorporates the SDGs as a broad evaluative measure.

From 2019 to 2020 (Fig. 5), the territorialization dimension expands overall. In Pattern A, the industry and the construction sector, carried over from the previous period, are joined by the federal state as a responsible actor. Outside the dominant pattern, consumers and cantonal authorities also emerge as prominent actors responsible for realizing the envisioned circular economy. CO2 emissions and the ecological footprint continue as the dominant evaluative measures, though they are only marginally integrated into the main pattern. Evaluative measures are even more underrepresented during this period.

Like the production dimension, the period from 2021 to 2024 (Fig. 6) does not witness a change in the popularity of responsible actors, but rather a shift in their positioning. Pattern A includes only the industry and public sector as responsible actors. Other frequently mentioned responsible actors fall outside Pattern A and B and are only loosely connected to them. Pattern B introduces civil society and politics in general as new responsible actors, with retail also present in this cluster. The integration of the two dominant evaluative concepts, CO2 emissions and ecological footprint, into the main pattern (Pattern A) provides further evidence of its ongoing consolidation. In Pattern B, the SDGs reappear as an evaluative measure.

Overall, these two dimensions remain only partially conceptualized. Industrial and government actors are primarily responsible for implementing the respective conceptualizations of the circular economy. Success will be measured mainly by CO2 emissions and ecological footprint, which aligns with an ecological perspective that prioritizes resource efficiency.

5.4. Actor constellations: who introduces which concepts?

The analysis of which political actors promote the identified patterns complements the previously discussed development of the four dimensions. Notably, this analysis does not correspond to the territorialization dimension, which concerns actors responsible for realizing the values postulated in the patterns. Instead, it traces the constellation of actors within the discourse itself.

The central finding of the actor constellation analysis is that the shift from diverse conceptualizations of the circular economy, reflected in different valuation patterns, toward a single, broad conceptualization is evident in the actor constellations. Before 2019, various political camps held distinct conceptualizations: the economically dominant perspective (Pattern A) was promoted by the executive and centre-right parties; the climate-mitigation perspective by the Green Party and the Swiss People's Party (Pattern B); and the resource-efficiency perspective by a centre-left coalition (Pattern C) (see bar charts Fig. 4). This centre-left coalition serves as a model for the actor coalitions of both dominant patterns in subsequent periods. As illustrated by the bar charts in Figs. 5 and 6, actors from across the political spectrum are represented in these patterns (Pattern A). The Green Party emerges as the dominant actor, consistent with the ecological focus of the topic (Pattern A). Additionally, the identified side pattern (Pattern B) is also advanced by the Green Party, indicating that these represent marginal positions within the party rather than genuine alternatives to the main pattern.

Over time, the executive authority becomes less prominent within the actor constellations, as indicated by a reduced share in the patterns (light grey segments in the bars). This diminished role is attributable to the underlying data: the executive is obligated to respond to every parliamentary procedural request, and these responses are typically longer and more detailed than the requests themselves. In the early phase (before 2019), when data volumes are lower, these extended responses have a greater impact. Consequently, for the executive, the key considerations are the patterns in which it is present and the nature of its relationships within those patterns. Before 2019, these were Patterns B and C; subsequently, Pattern A becomes more relevant.

5.5. Coherence of valuation patterns

Coherence, defined as the extent to which the four dimensions form a mutually reinforcing whole, is essential for a valuation pattern to serve as a stable framework for action (Friedland and Arjaliès, 2020, p. 43). A coherent valuation pattern not only articulates goals and measures but also connects them through a logic of co-dependence: values identified in the institution dimension should be achievable through measures in the production dimension, implemented by actors in the territorialization dimension, and verifiable through metrics in the evaluation dimension. The following section assesses all identified patterns regarding coherence.

In the first period, no cluster achieves full coherence. Pattern C comes closest by linking resource efficiency as a core value, repair and product design as implementation measures, and the ecological footprint as an evaluative metric, resulting in a relatively coherent chain of concepts. However, a responsible actor for implementation is absent. Coherence is even less pronounced in the other two patterns. This structural incompleteness may reflect the early stage of the debate, where the circular economy serves more as a normative reference point than as an actionable policy framework.

In the second period, consolidation into a single dominant cluster increases dimensional breadth, but coherence remains lacking. The abundance of concepts from the institution dimension results in a framing that is politically inclusive yet analytically diffuse. While it is possible to construct a coherent chain from some concepts (for example, increased recycling in industry leading to less waste, measurable by CO2 emissions), this is not feasible for most concepts in the dominant cluster. Thus, consistent with the earlier analysis, this pattern remains in formation and is not yet coherent.

In the third period, Pattern A continues to face coherence challenges due to its breadth. However, coherence is achieved for ecological goals: new designs, reuse, and recycling enable industry to attain resource efficiency, reduce waste, and reduce ecological damage, with the ecological footprint serving as an appropriate evaluative measure. In contrast, coherence is lacking for economic goals. Pattern B demonstrates a higher degree of internal coherence, as civil society, politics, and the retail sector, supported by technology and education, can promote circular consumption habits, enhance household purchasing power, and advance sustainable development. Progress in this pattern can be measured by the SDGs.

Overall, the analysis indicates that coherence and political salience do not necessarily align. The dominant pattern achieves political consolidation while remaining incomplete, whereas the more coherent alternative framing remains marginal.

6. Discussion

This section discusses the key findings from the analysis of the Swiss national discourse on the circular economy. The starting point of the paper is the claim that sustainability transitions inherently involving a conflict between existing and emergent values. In a transition, conflicting values struggle for their material and symbolic realization.

The presented findings show that the prevailing patterns and the trend towards harmonization of goals and values within the Swiss circular economy discourse limit its transformative potential, thereby preventing a genuine shift towards sustainability. Furthermore, the incoherence of the current dominant pattern leads to the conclusion that the circular economy is currently primarily a matter of hope rather than an actual strategy. Although a wide range of values is associated with the circular economy, these values are often misaligned with implementation measures, the actors responsible for their realization, and the evaluative criteria.

The analysis of the evolution of valuation patterns in the national discourse shows a shift from diverse conceptualizations toward an overarching compromise. Prior to 2019, various actor constellations conceptualized the circular economy in different ways, with values ranging from economic to ecological. The most frequently cited measures for achieving these values were characteristic of the circular economy, such as promoting circular products and services. At this stage, the patterns remained incomplete, particularly in the territorialization dimension. This incompleteness also reduced the coherence of the patterns, as valuation patterns only work when all dimensions are covered and correspond to one another.

The subsequent two periods demonstrate a clear development of both the patterns and the overall structure. The period from 2019 to 2020 served as a transitional phase, while the overall structure consolidated in the final period, 2021 to 2024. From 2019 onward, conceptual diversity declined as previously distinct economic and ecological conceptualizations, particularly those focused on resource efficiency, converge into a broadly supported compromise. In the production dimension, established concepts not specific to the circular economy, such as recycling and legal regulation, became increasingly prominent, indicating the consolidation of a compromise. The territorialization and evaluation dimensions remained underdeveloped. Although a secondary pattern existed, it only played a marginal role, even within the political party supporting these changes. Notably, the compromise pattern that emerged lacks coherence. The large number of concepts makes it difficult to discern a clear structure. Furthermore, there is a lack of suitable concepts from other dimensions to address the economic values that are gaining importance.

Overall, the emerging conceptualization of the circular economy positioned it as a means to foster ecological benefits through efficient resource use and to promote economic growth. Legal regulation, incentives for new product design, and recycling were identified as primary strategies. Industry has been named as the principal responsible actor. When evaluative measures have been specified, they primarily focus on CO2 emissions and ecological footprint. Owing to the lack of coherence, the concept of a circular economy at this stage of the discussion appears more like what Corvellec et al. (2022, p. 429) call a hypothetico-normative utopia. Two plausible explanations account for this lack of coherence. First, the early stage of the discourse limits experience with effective constellations. Learning and accumulated experience are essential for strengthening actions toward transition, as they provide a foundation for further progress (van Mierlo and Beers, 2020). Second, the tendency to compromise often dilutes conceptual clarity in favour of broader relatability. Deters (2018) demonstrates that compromise-building in policies reduces internal coherence, as negotiations may introduce additional goals without specifying corresponding actions. The surplus of institution concepts in the overall discourse supports this interpretation.

A subsequent consideration is whether the consolidating and dominant conception of the circular economy possesses transformative potential. A genuine transition requires a contest between conflicting values for material and symbolic realization (Kenis et al., 2016), the challenging of established norms (Blühdorn, 2013), and, consequently, a fundamental change in how societies meet their need (Köhler et al., 2019).

For the circular economy to be transformative, it must diverge from the status quo, as circularity alone does not guarantee sustainability (Blum et al., 2020). A sustainable circular economy would therefore reduce economic activity, respect planetary boundaries, shift consumption towards sharing and reuse, prioritize closed, design-based, localized production, and democratize economic structures (Calisto Friant et al., 2024; Velenturf and Purnell, 2021). However, the needed abandonment of the growth paradigm (Hobson and Lynch, 2016) or a transformation of consumption (Korhonen et al., 2018) is absent from the consolidated compromise pattern observed in the analysis conducted. The paper therefore finds that, the discourse on the circular economy in Switzerland lacks transformative potential.

This is further substantiated by the general requirements for a transition towards sustainability. Although the diversity of patterns prior to 2019 suggests the possibility of a contest of conflicting values for material and symbolic realization, the emergence and dominance of the compromise pattern indicate the failure of competing values to achieve political salience. Furthermore, the prevailing understanding of the circular economy remains aligned with the status quo and established capitalist core values (Feola et al., 2021). Although the valuation patterns indicate that the circular economy promotes sustainable values and practices to some extent, this contribution to the status quo is insufficient to drive a substantive transition towards sustainability (Feola et al., 2021; Hickel and Kallis, 2020), because underlying principles, including unlimited economic growth, competitiveness, consumerism, and capitalism, remain unquestioned and thus continue to impede sustainability transitions (Feola, 2020; Steinberger and Roberts, 2010; van Oers et al., 2021). The absence of a socio-technical vision divergent from the current status quo suggests that implementing the circular economy, as envisioned in Switzerland's national political discourse, is unlikely to lead to substantial transformation toward greater sustainability. However, addressing the grand challenges facing society requires that innovations such as the circular economy must be integrated with broader social change (Jeannerat, 2024) and preserving this radical dimension enables transformative interventions to facilitate substantive social change (Marquardt, 2024).

7. Conclusion

The article employs the institutional logic approach, utilizing the valuation pattern framework (Friedland and Arjaliès, 2021), to investigate the influence of values on transition processes. The national political discourse on the circular economy in Switzerland serves as an illustrative case study.

Empirical findings identify three critical aspects that highlight the limited transformative potential of current conceptualizations of the circular economy within the Swiss national political discourse. First, economic and ecological values, especially those aligned with market logic, predominate; these values fundamentally conflict with the requirements of a sustainable circular economy (Hobson and Lynch, 2016). Second, the valuation patterns lack coherence, positioning the circular economy as a concept that inspires hope but lacks concrete actions. Third, the dominant valuation pattern is consistent with the status quo, casting substantial doubt on the existence of a genuine transition process.

The results show that the valuation pattern framework serves as an effective tool for analyzing the transformative effects of new technologies, concepts, or practices. This framework enables the specification of the targeted values, the means of realization, and the responsible actors envisioned in transformative interventions. By revealing this structure, it becomes possible to assess whether interventions are characterized by conflict, either through opposing valuation patterns or divergence from the status quo, thereby revealing their transformative potential.

Examining how interventions, conceptualized as institutional objects, influence both the functions and the normative foundations of sociotechnical regimes aligns with the work of Fuenfschilling and Truffer (2014, 2016), while placing greater emphasis on values and their functional coherence. Fuenfschilling and Truffer (2014, 2016) utilize the institutional logics approach of Thornton and Ocasio (2008), which Friedland (2012, 2025) critiques for neglecting values as a central component. Additionally, integrating the valuation pattern framework with approaches such as the multilevel perspective (Geels, 2004) may clarify whether and how niche innovations modify institutional logics, understood as interrelated values and practices, within sociotechnical regimes. This framework can identify specific value conflicts that underlie the broader structural changes analyzed by the multilevel perspective.

Another avenue involves combining the valuation pattern framework with the concept of 'boundary objects' as articulated by Franco-Torres et al. (2020), thereby broadening the analytical viewpoint to assess whether these objects facilitate changes in practices and values across institutional logics. The Franco-Torres et al. (2020) framework may enable the otherwise static valuation pattern framework to account for the dynamic adaptation of institutional logics. Furthermore, perspectives on cooperation may support the valuation pattern framework in identifying ambiguous constellations across logics.

It is also pertinent to examine the relationship between the valuation pattern framework and current research on valuation ecosystems in transition studies (Hoos et al., 2025), which demonstrates how valuation devices shape the directionality of innovations. Both approaches share the objective of understanding how values affect transition trajectories.

Applying the valuation pattern framework in STR reveals several promising directions for future research. Wider application of the approach is recommended to fully realize its potential. The framework can facilitate analysis of historical cases to determine whether contestation contributed to successful sustainability transformation. It also enables assessment of the lasting and transformative effects of interventions, thereby supporting necessary adjustments. Additionally, the framework can be used to analyse the influence of valuation techniques, values, norms, and social structures on transformations. Further development and empirical testing of integration between the valuation pattern framework and, for example, the multilevel perspective (MLP) and boundary objects, is also warranted. Using MLP or boundary objects can clarify the nature and function of institutional objects, thereby enhancing the specificity of the valuation pattern framework. Conversely, the valuation pattern framework provides a suitable lens for analyzing whether a niche innovation or boundary object fundamentally alters the core values of a socio-technical regime. Such integration may help explain the underlying reasons for the failure or regression of certain transitions.

To summarize, the valuation pattern framework provides a critical perspective on the role of values in transition processes. It enables systematic analysis of whether postulated values are substantiated by corresponding practices, actors, and evaluative measures, thereby revealing the coherence or lack of coherence between normative claims and concrete actions. The framework also captures the inherently contested nature of transitions and offers a robust foundation for critical engagement with the complexities underlying transition processes.

CRediT authorship contribution statement

Florian Jakob: Writing – review & editing, Writing – original draft, Methodology, Formal analysis, Data curation, Conceptualization.

Declaration of competing interest

The authors declare that they have no known competing financial interests or personal relationships that could have appeared to influence the work reported in this paper.

Appendix A

	Institution	Production	Territorialization	Evaluation
Economic Concepts	Added Value Commercial Freedom Competitiveness Economic Growth Free Market Industrial Location Promotion Innovation Jobs (preserve and create) Profitability Raw Materials Production Reduce Externalities	Business Models Changing Economy Design Financial Support Incentives New Technologies Support Innovation	Agriculture and Food Industry Building/Construction Industry Industry Resources Service and Retail	Circularity Recycling Rate Repair Index
Ecological Concepts	CO_2 Reduction Conserving Natural Resources Ecology (unspecific) Landscape Protection Reduce Climate Change Reducing Ecological Damage Resilience Resource Efficiency Sustainable Development Waste Reduction	Polluter Principle Recycling Reuse		CO_2 Emission Ecological Footprint Embodied Energy Environmental Goals Life Cycle Assessment Material Footprint Planetary Boundaries
Social Concepts	Increase Purchasing Power Public Health Value to Society	Adapting Lifestyle Education Frame Conditions Information Laws and Regulations Prohibition Promote Repairing Public Procurement Voluntary Measures	Civil Society Consumers	SDG
Public Actors			Canton Federal State Politics Public Sector	

Sub-Codes for the four “dimensions of valuation” with corresponding categories

Data availability

Data will be made available on request.

References

Alvarado, I.A.O., Sutcliffe, T.E., Berker, T., Pettersen, I.N., 2021. Emerging circular economies: discourse coalitions in a Norwegian case. Sustain. Prod. Consum. 26, 360–372. https://doi.org/10.1016/j.spc.2020.10.011.

Antal, M., van den Bergh, J.C.J.M., 2016. Green growth and climate change: conceptual and empirical considerations. Clim. Policy 16 (2), 165–177. https://doi.org/10.1080/14693062.2014.992003.

Arjaliès, D.L., 2021. The role of utopia in the workings of local and cryptocurrencies. Hrsg.. In: Rau, R., Wardrop, R., Zingales, L. (Eds.), The Palgrave Handbook of Technological Finance. Springer International Publishing, pp. 95–137. https://doi.org/10.1007/978-3-030-65117-6_5. S.

Avelino, F., 2017. Power in sustainability transitions: analysing power and (dis)empowerment in transformative change towards sustainability. Environ. Policy Gov. 27 (6), 505–520. https://doi.org/10.1002/eet.1777.

Avelino, F., Grin, J., Pel, B., Jhagroe, S., 2016. The politics of sustainability transitions. J. Environ. Policy Plan. 18 (5), 557–567. https://doi.org/10.1080/1523908X.2016.1216782.

Avelino, F., Wijsman, K., van Steenbergen, F., Jhagroe, S., Wittmayer, J., Akerboom, S., Bogner, K., Jansen, E.F., Frantzeskaki, N., Kalfagianni, A., 2024. Just sustainability transitions: politics, power, and prefiguration in transformative change toward justice and sustainability. Annu. Rev. Environ. Resour. 49, 519–547. https://doi.org/10.1146/annurev-environ-112321-081722.

Avelino, F., Wittmayer, J.M., 2016. Shifting power relations in sustainability transitions: a multi-actor perspective. J. Environ. Policy Plan. 18 (5), 628–649. https://doi.org/10.1080/1523908X.2015.1112259.

Backbone Layout—Visone manual. (2026). https://visone.ethz.ch/wiki/index.php/Backbone_Layout.

Berggren, C., Magnusson, T., Sushandoyo, D., 2015. Transition pathways revisited: established firms as multi-level actors in the heavy vehicle industry. Res. Policy 44 (5), 1017–1028. https://doi.org/10.1016/j.respol.2014.11.009.

Binz, C., Castaldi, C., 2024. Toward a normative turn in research on the geography of innovation? Evolving perspectives on innovation, institutions, and human well-being. Prog. Econ. Geogr. 2 (2), 100018. https://doi.org/10.1016/j.peg.2024.100018.

Binz, C., Coenen, L., Frenken, K., Murphy, J.T., Strambach, S., Trippl, M., Truffer, B., 2025. Exploring the economic geographies of sustainability transitions: commentary and agenda. Econ. Geogr. 101 (1), 1–27. https://doi.org/10.1080/00130095.2024.2445530.

Binz, C., Harris-Lovett, S., Kiparsky, M., Sedlak, D.L., Truffer, B., 2016. The thorny road to technology legitimation—institutional work for potable water reuse in California. Technol. Forecast. Soc. Change 103, 249–263. https://doi.org/10.1016/j.techfore.2015.10.005.

Blühdorn, I., 2013. The governance of unsustainability: ecology and democracy after the post-democratic turn. Environ. Polit. 22 (1), 16–36. https://doi.org/10.1080/09644016.2013.755005.
Blühdorn, I., Deflorian, M., 2021. Politicisation beyond post-politics: new social activism and the reconfiguration of political discourse. Soc. Mov. Stud. 20 (3), 259–275. https://doi.org/10.1080/14742837.2021.1872375.
Blum, N.U., Haupt, M., Bening, C.R., 2020. Why "circular" doesn't always mean "sustainable". Resour. Conserv. Recycl. 162, 105042. https://doi.org/10.1016/j.resconrec.2020.105042.
Boon, W.P.C., Bakker, S., 2016. Learning to shield – Policy learning in socio-technical transitions. Environ. Innov. Soc. Transit. 18, 181–200. https://doi.org/10.1016/j.eist.2015.06.003.
Brown, W., 2015. Undoing the Demos. Neoliberalism's Stealth Revolution. Zone Books.
Calisto Friant, M., Vermeulen, W.J.V., Salomone, R., 2020. A typology of circular economy discourses: navigating the diverse visions of a contested paradigm. Resour., Conserv. Recycl. 161, 104917. https://doi.org/10.1016/j.resconrec.2020.104917.
Calisto Friant, M., Vermeulen, W.J.V., Salomone, R., 2024. Transition to a sustainable circular society: more than just resource efficiency. Circ. Econ. Sustain. 4 (1), 23–42. https://doi.org/10.1007/s43615-023-00272-3.
Coad, A., Vezzani, A., Stilgoe, J., Nightingale, P., 2021. Editorial: the dark side of innovation. Ind. Innov. 28 (1), 102–112. https://doi.org/10.1080/13662716.2020.1818555.
Corvellec, H., Stowell, A.F., Johansson, N., 2022. Critiques of the circular economy. J. Ind. Ecol. 26 (2), 421–432. https://doi.org/10.1111/jiec.13187.
Deters, H., 2018. Policy coherence by subterfuge? Arenas and compromise-building in the European Union's energy efficiency policy. Environ. Policy Gov. 28 (5), 359–368. https://doi.org/10.1002/eet.1822.
Dryzek, J.S., 2021. The Politics of the Earth—Environmental Discourses, 4th ed. Oxford University Press.
Feola, G., 2020. Capitalism in sustainability transitions research: time for a critical turn? Environ. Innov. Soc. Transit. 35, 241–250. https://doi.org/10.1016/j.eist.2019.02.005.
Feola, G., Vincent, O., Moore, D., 2021. (Un)making in sustainability transformation beyond capitalism. Glob. Environ. Change 69, 102290. https://doi.org/10.1016/j.gloenvcha.2021.102290.
Fischer, L.B., Newig, J., 2016. Importance of actors and agency in sustainability transitions: a systematic exploration of the literature. Sustainability 8 (5), 476. https://doi.org/10.3390/su8050476. Artikel 5.
Ford, A., Newell, P., 2021. Regime resistance and accommodation: toward a neo-Gramscian perspective on energy transitions. Energy Res. Soc. Sci. 79, 102163. https://doi.org/10.1016/j.erss.2021.102163.
Franco-Torres, M., Rogers, B.C., Ugarelli, R.M., 2020. A framework to explain the role of boundary objects in sustainability transitions. Environ. Innov. Soc. Transit. 36, 34–48. https://doi.org/10.1016/j.eist.2020.04.010.
Frank, L., Feola, G., Schäpke, N., 2024. Assessing regime destabilisation through policy change: an analysis of agricultural policy in the United Kingdom during Brexit. Environ. Innov. Soc. Transit. 50, 100810. https://doi.org/10.1016/j.eist.2024.100810.
Friedland, R. (2012). The Institutional logics Perspective: a new approach to culture, structure, and Process. Patricia H. THORNTON, William OCASIO & Michael LOUNSBURY (2012)The Institutional Logics Perspective: a new approach to culture, Structure, and process. Oxford: oxford University Press. M@n@gement, 15 (5), 583. 10.3917/mana.155.0583.
Friedland, R., 2017. The value of institutional logics. Hrsg.. In: Krücken, G., Mazza, C., Meyer, R.E., Walgenbach, P. (Eds.), New Themes in Institutional Analysis. Tpoics and Issues from European Research. Edward Elgar Publishing, pp. 12–50. https://doi.org/10.4337/9781784716875. S.
Friedland, R., 2018. Moving institutional logics forward: emotion and meaningful material practice. Organ. Stud. 39 (4), 515–542. https://doi.org/10.1177/0170840617709307.
Friedland, R., 2025. Relinquishing value: aristotle and the substances of institutional practice. Hrsg.. In: Krüger, A.K., Peetz, T., Schäfer, H. (Eds.), The Routledge International Handbook of Valuation and Society. Routledge, pp. 54–70. S.
Friedland, R., Alford, R., 1991. Bringing society back In: symbols, practices, and institutional contradictions. Hrsg.. In: Powell, W.W., DiMaggio, P.J. (Eds.), The New Institutionalism in Organizational Analysis. University of Chicago Press, pp. 232–267. S.
Friedland, R., Arjaliès, D.L., 2021. Putting things in place: institutional objects and institutional logics. Hrsg.. In: Lounsbury, M., Anderson, D.A., Spee, P. (Eds.), Research in the Sociology of Organizations. Emerald Publishing Limited, pp. 45–86. https://doi.org/10.1108/S0733-558x20200000071003. S.
Friedland, R., Arjaliès, D.L., 2024. Speaking for Human being: institutional logics, dragons, and the Supra-Human. J. Organ. Sociol. 2 (2), 191–227. https://doi.org/10.1515/joso-2023-0038.
Friedland, R., Mohr, J.W., Roose, H., Gardinali, P., 2014. The institutional logics of love: measuring intimate life. Theory Soc. 43 (3), 333–370. https://doi.org/10.1007/s11186-014-9223-6.
Friedland, R., Roose, H., Mohr, J.W., 2025. The institutional logics of love: the order of passion in an intimate field. Am. J. Cult. Sociol. 13, 1–52. https://doi.org/10.1057/s41290-024-00209-9.
Fuenfschilling, L., 2019. Chapter 12: an institutional perspective on sustainability transitions. Hrsg.. In: Boons, F., McMeekin, A. (Eds.), Handbook of Sustainable Innovation. Edward Elgar Publishing, pp. 219–236. https://doi.org/10.4337/9781788112574. S.
Fuenfschilling, L., Truffer, B., 2014. The structuration of socio-technical regimes—Conceptual foundations from institutional theory. Res. Policy 43 (4), 772–791. https://doi.org/10.1016/j.respol.2013.10.010.
Fuenfschilling, L., Truffer, B., 2016. The interplay of institutions, actors and technologies in socio-technical systems—an analysis of transformations in the Australian urban water sector. Technol. Forecast. Soc. Change 103, 298–312. https://doi.org/10.1016/j.techfore.2015.11.023.
Gabehart, K.M., Nam, A., Weible, C.M., 2022. Lessons from the advocacy coalition framework for climate change policy and politics. Clim. Action 1 (1), 1–14. https://doi.org/10.1007/s44168-022-00014-5.
Geels, F.W., 2004. From sectoral systems of innovation to socio-technical systems: insights about dynamics and change from sociology and institutional theory. Res. Policy 33 (6), 897–920. https://doi.org/10.1016/j.respol.2004.01.015.
Geels, F.W., 2014. Regime resistance against low-carbon transitions: introducing politics and power into the multi-level perspective. Theory Cult. Soc. 31 (5), 21–40. https://doi.org/10.1177/0263276414531627.
Geissdoerfer, M., Savaget, P., Bocken, N.M.P., Hultink, E.J., 2017. The circular economy – a new sustainability paradigm? J. Clean. Prod. 143, 757–768. https://doi.org/10.1016/j.jclepro.2016.12.048.
Hacker, M.E., Binz, C., 2021. Navigating institutional complexity in socio-technical transitions. Environ. Innov. Soc. Transit. 40, 367–381. https://doi.org/10.1016/j.eist.2021.09.003.
Hajer, M.A., 2005. Coalitions, practices, and meaning in environmental politics: from acid rain to BSE. Hrsg.. In: Howarth, D., Torfing, J. (Eds.), Discourse Theory in European Politics. Palgrave Macmillian, pp. 297–315. S. https://link.springer.com/chapter/10.1057/9780230523364_13.
Hajer, M.A., 2006. Doing discourse analysis: coalitions, practices, meaning. Hrsg.. In: van den Brink, M., Metze, & T. (Eds.), Words Matter in Policy and Planning—Discourse Theory and Method in the Social Sciences. Royal Dutch Geographical Society, pp. 65–76. S.
Hänni, M., Aeschlimann, B., & Graf, L. (2024). Berufsbildung im Fokus der Politik: aktuelle herausforderungen aus Sicht der Parlamente (Nr. 14; OBS EHB Trend im Fokus, S. 11). Eidgenössische Hochschule für Berufsbildung EHB. https://www.ehb.swiss/sites/default/files/2024-11/TIF-Politisches-Monitoring.pdf.
Heiberg, J., Truffer, B., 2022. Overcoming the harmony fallacy: how values shape the course of innovation systems. Environ. Innov. Soc. Transit. 42, 411–428. https://doi.org/10.1016/j.eist.2022.01.012.
Heiberg, J., Truffer, B., Binz, C., 2022. Assessing transitions through socio-technical configuration analysis – a methodological framework and a case study in the water sector. Res. Policy 51 (1), 104363. https://doi.org/10.1016/j.respol.2021.104363.
Helfer, L., Wäspi, F., Varone, F., 2021. Does direct democracy enhance politicians' perceptions of constituents' opinions? Evidence from Switzerland. Swiss Polit. Sci. Rev. 27 (4), 695–711. https://doi.org/10.1111/spsr.12495.
Hickel, J., Kallis, G., 2020. Is green growth possible? New Polit. Econ. 25 (4), 469–486. https://doi.org/10.1080/13563467.2019.1598964.

Hobson, K., Lynch, N., 2016. Diversifying and de-growing the circular economy: radical social transformation in a resource-scarce world. Futures 82, 15–25. https://doi.org/10.1016/j.futures.2016.05.012.
Hodson, M., Burrai, E., Barlow, C., 2016. Remaking the material fabric of the city: 'alternative' low carbon spaces of transformation or continuity? Environ. Innov. Soc. Transit. 18, 128–146. https://doi.org/10.1016/j.eist.2015.06.001.
Hoos, M., Truffer, B., Hoekman, J., 2025. Unpacking the selection environment: directionality shaped by emerging valuation ecosystems. Pap. Innov. Stud. 2025/11. https://journals.lub.lu.se/piis/article/view/28283.
IPCC. (2023). Summary for policymakers. In Climate Change 2023: Synthesis Report.Contribution of Working Groups I, II and III to the Sixth Assessment Report of the Intergovernmental Panel On Climate Change [Core Writing Team, H.Lee and J.Romero (eds.)] (S. 1–34).
Jeannerat, H., 2024. Let's innovate! but for what value(s)? Towards an economic geography of valuation in markets and society. Prog. Econ. Geogr. 2 (2), 100022. https://doi.org/10.1016/j.peg.2024.100022.
Jeannerat, H., Crevoisier, O., 2022. From competitiveness to territorial value: transformative territorial innovation policies and anchoring milieus. Eur. Plan. Stud. 30 (11), 2157–2177. https://doi.org/10.1080/09654313.2022.2042208.
Jenkins-Smith, H.C., Nohrstedt, D., Ingold, K., Weible, C.M., 2018. The advocacy coalition framework: an overview of the research program. Hrsg.. In: Weible, C.M., Sabatier, P.A. (Eds.), Theories of the Policy Process, 4th ed. Routledge, pp. 145–182. https://doi.org/10.4324/9780429494284. S.
Johnstone, P., Newell, P., 2018. Sustainability transitions and the state. Environ. Innov. Soc. Transit. 27, 72–82. https://doi.org/10.1016/j.eist.2017.10.006.
Kalt, T., 2024. Transition conflicts: a Gramscian political ecology perspective on the contested nature of sustainability transitions. Environ. Innov. Soc. Transit. 50, 100812. https://doi.org/10.1016/j.eist.2024.100812.
Kenis, A., 2019. Post-politics contested: why multiple voices on climate change do not equal politicisation. Environ. Plan. C 37 (5), 831–848. https://doi.org/10.1177/0263774x18807209.
Kenis, A., Bono, F., Mathijs, E., 2016. Unravelling the (post-)political in transition management: interrogating pathways towards sustainable change. J. Environ. Policy Plan. 18 (5), 568–584. https://doi.org/10.1080/1523908X.2016.1141672.
Kenis, A., Lievens, M., 2014. Searching for 'the political' in environmental politics. Environ. Polit. 23 (4), 531–548. https://doi.org/10.1080/09644016.2013.870067.
Kern, F., Rogge, K.S., 2018. Harnessing theories of the policy process for analysing the politics of sustainability transitions: a critical survey. Environ. Innov. Soc. Transit. 27, 102–117. https://doi.org/10.1016/j.eist.2017.11.001.
Kirchherr, J., Reike, D., Hekkert, M., 2017. Conceptualizing the circular economy: an analysis of 114 definitions. Resour. Conserv. Recycl. 127, 221–232. https://doi.org/10.1016/j.resconrec.2017.09.005.
Kirchherr, J., Yang, N.H.N., Schulze-Spüntrup, F., Heerink, M.J., Hartley, K., 2023. Conceptualizing the circular economy (Revisited): an analysis of 221 definitions. Resour. Conserv. Recycl. 194, 107001. https://doi.org/10.1016/j.resconrec.2023.107001.
Köhler, J., Geels, F.W., Kern, F., Markard, J., Onsongo, E., Wieczorek, A., Alkemade, F., Avelino, F., Bergek, A., Boons, F., Fünfschilling, L., Hess, D., Holtz, G., Hyysalo, S., Jenkins, K., Kivimaa, P., Martiskainen, M., McMeekin, A., Mühlemeier, M.S., Wells, P., 2019. An agenda for sustainability transitions research: state of the art and future directions. Environ. Innov. Soc. Transit. 31, 1–32. https://doi.org/10.1016/j.eist.2019.01.004.
Kok, K.P.W., 2023. Politics beyond agency? Pluralizing structure(s) in sustainability transitions. Energy Res. Soc. Sci. 100, 103120. https://doi.org/10.1016/j.erss.2023.103120.
Korhonen, J., Honkasalo, A., Seppälä, J., 2018. Circular economy: the concept and its limitations. Ecol. Econ. 143, 37–46. https://doi.org/10.1016/j.ecolecon.2017.06.041.
Ladner, A., Soguel, N., Emery, Y., Weerts, S., Nahrath, S., 2019. Swiss Public Administration: Making the State Work Successfully. Springer International Publishing. https://doi.org/10.1007/978-3-319-92381-9.
Leydesdorff, L., 2008. On the normalization and visualization of author co-citation data: Salton's Cosine versus the Jaccard index. J. Am. Soc. Inf. Sci. Technol. 59 (1), 77–85. https://doi.org/10.1002/asi.20732.
Lindberg, M.B., 2022. The power of power markets: zonal market designs in advancing energy transitions. Environ. Innov. Soc. Transit. 45, 132–153. https://doi.org/10.1016/j.eist.2022.08.004.
Loorbach, D., Frantzeskaki, N., Avelino, F., 2017. Sustainability Transitions research: transforming science and practice for societal change. Annu. Rev. Environ. Resour. 42 (1), 599–626. https://doi.org/10.1146/annurev-environ-102014-021340.
Loorbach, D., Wittmayer, J., Avelino, F., von Wirth, T., Frantzeskaki, N., 2020. Transformative innovation and translocal diffusion. Environ. Innov. Soc. Transit. 35, 251–260. https://doi.org/10.1016/j.eist.2020.01.009.
Maring, N.C., Bieri, U., Erpf, P., Kocher, J.P.H., Bürgi, M., Bartlome, R., & Schäfer, S. (2023). Lobbying in der Schweiz: systemimmanent, erfolgreich und nicht nur beliebt. Verbandsmanagement Institut /gfs.bern. https://www.gfsbern.ch/wp-content/uploads/2023/02/lobbying-survey-switzerland-2022_schlussbericht.pdf.
Markard, J., Geels, F.W., Raven, R., 2020. Challenges in the acceleration of sustainability transitions. Environ. Res. Lett. 15 (8), 081001. https://doi.org/10.1088/1748-9326/ab9468.
Markard, J., Raven, R., Truffer, B., 2012. Sustainability transitions: an emerging field of research and its prospects. Res. Policy Spec. Sect. Sustain. Transit. 41 (6), 955–967. https://doi.org/10.1016/j.respol.2012.02.013.
Markard, J., Suter, M., Ingold, K., 2016. Socio-technical transitions and policy change – advocacy coalitions in Swiss energy policy. Environ. Innov. Soc. Transit. 18, 215–237. https://doi.org/10.1016/j.eist.2015.05.003.
Markard, J., Wells, P., Yap, X.S., Lente, H., 2023. Unsustainabilities: a study on SUVs and space tourism and a research agenda for transition studies. Energy Res. Soc. Sci. 106, 103302. https://doi.org/10.1016/j.erss.2023.103302.
Marquardt, J., 2024. How Greens turn gray: green Party politics and the depoliticization of energy and climate change. Front. Polit. Sci. 5. https://doi.org/10.3389/fpos.2023.1301734.
Meadowcroft, J., 2007. Who is in charge here? Governance for sustainable development in a complex world. J. Environ. Policy Plan. 9 (3–4), 299–314. https://doi.org/10.1080/15239080701631544.
Meadowcroft, J., 2011. Engaging with the politics of sustainability transitions. Environ. Innov. Soc. Transit. 1 (1), 70–75. https://doi.org/10.1016/j.eist.2011.02.003.
Miörner, J., Truffer, B., Binz, C., Heiberg, J., & Yap, X.S. (2022). Guidebook for applying the socio- technical configuration analysis method. GEIST Working Paper Series, 2022(01). https://dspace.library.uu.nl/bitstream/handle/1874/426436/geist_wp_2201.pdf?sequence=1.
Misleh, D., Dziumla, J., Garza, M.D.L., Guenther, E., 2024. Sustainability against the logics of the state: political and institutional barriers in the Chilean infrastructure sector. Environ. Innov. Soc. Transit. 51, 100842. https://doi.org/10.1016/j.eist.2024.100842.
Mueller, S., Linder, W., 2017. Schweizerische Demokratie. Institutionen—Prozesse—Perspektiven (4. Vollständig überarbeitete Und Aktualisierte Auflage). Haupt Verlag.
Nesari, M., Naghizadeh, M., Ghazinoori, S., Manteghi, M., 2022. The evolution of socio-technical transition studies: a scientometric analysis. Technol. Soc. 68, 101834. https://doi.org/10.1016/j.techsoc.2021.101834.
Newell, P., 2020. Towards a global political economy of transitions: a comment on the transitions research agenda. Environ. Innov. Soc. Transit. 34, 344–345. https://doi.org/10.1016/j.eist.2019.10.007.
Nikolaou, I.E., Jones, N., Stefanakis, A., 2021. Circular economy and sustainability: the past, the present and the future directions. Circ. Econ. Sustain. 1 (1), 1–20. https://doi.org/10.1007/s43615-021-00030-3.
Novalia, W., Rogers, B.C., Bos, J.J., 2021. Incumbency and political compromises: opportunity or threat to sustainability transitions? Environ. Innov. Soc. Transit. 40, 680–698. https://doi.org/10.1016/j.eist.2021.05.002.
Park, G., Cho, M., Lee, J., 2024. Leveraging machine learning for automatic topic discovery and forecasting of process mining research: a literature review. Expert Syst. Appl. 239, 122435. https://doi.org/10.1016/j.eswa.2023.122435.
Patterson, J., Schulz, K., Vervoort, J., van der Hel, S., Widerberg, O., Adler, C., Hurlbert, M., Anderton, K., Sethi, M., Barau, A., 2017. Exploring the governance and politics of transformations towards sustainability. Environ. Innov. Soc. Transit. 24, 1–16. https://doi.org/10.1016/j.eist.2016.09.001.

Penna, C.C.R., Geels, F.W., 2012. Multi-dimensional struggles in the greening of industry: a dialectic issue lifecycle model and case study. Technol. Forecast. Soc. Change Contains Spec. Sect. Actors Strateg. Resour. Sustain. Transit. 79 (6), 999–1020. https://doi.org/10.1016/j.techfore.2011.09.006.
Pineda, A.F.V., Jørgensen, U., 2016. Creating Copenhagen's metro – On the role of protected spaces in arenas of development. Environ. Innov. Soc. Transit. 18, 201–214. https://doi.org/10.1016/j.eist.2015.05.002.
Raven, R., Kern, F., Verhees, B., Smith, A., 2016. Niche construction and empowerment through socio-political work. A meta-analysis of six low-carbon technology cases. Environ. Innov. Soc. Transit. 18, 164–180. https://doi.org/10.1016/j.eist.2015.02.002.
Richardson, K., Steffen, W., Lucht, W., Bendtsen, J., Cornell, S.E., Donges, J.F., Drüke, M., Fetzer, I., Bala, G., von Bloh, W., Feulner, G., Fiedler, S., Gerten, D., Gleeson, T., Hofmann, M., Huiskamp, W., Kummu, M., Mohan, C., Nogués-Bravo, D., Rockström, J., 2023. Earth beyond six of nine planetary boundaries. Sci. Adv. 9 (37), eadh2458. https://doi.org/10.1126/sciadv.adh2458.
Rosenbloom, D., 2020. Engaging with multi-system interactions in sustainability transitions: a comment on the transitions research agenda. Environ. Innov. Soc. Transit. 34, 336–340. https://doi.org/10.1016/j.eist.2019.10.003.
Rosenbloom, D., Berton, H., Meadowcroft, J., 2016. Framing the sun: a discursive approach to understanding multi-dimensional interactions within socio-technical transitions through the case of solar electricity in Ontario, Canada. Res. Policy 45 (6), 1275–1290. https://doi.org/10.1016/j.respol.2016.03.012.
Runhaar, H., Fünfschilling, L., van den Pol-Van Dasselaar, A., Moors, E.H.M., Temmink, R., Hekkert, M., 2020. Endogenous regime change: lessons from transition pathways in Dutch dairy farming. Environ. Innov. Soc. Transit. 36, 137–150. https://doi.org/10.1016/j.eist.2020.06.001.
Sabatier, P.A., 1988. An advocacy coalition framework of policy change and the role of policy-oriented learning therein. Policy Sci. 21 (2–3), 129–168. https://doi.org/10.1007/BF00136406.
Sætra, H.S., Sætra, H.S., 2023. Conclusion- the promise and pitfalls of techno- solutionism for sustainable development. Hrsg. Technology and Sustainable Development: The Promise and Pitfalls of Techno-Solutionism. Routledge, pp. 265–269. https://doi.org/10.1201/9781003325086. S.
Sager, F., 2007. Making transport policy work: polity, policy, politics and systematic review. Policy Polit. 35 (2), 269–288. https://doi.org/10.1332/030557307780712951.
Savin, I., & van den Bergh, J. (2021). Main topics in EIST during its first decade: a computational-linguistic analysis. Environmental Innovation and Societal Transitions, Celebrating a decade of EIST: What's next for transition studies?, 41, 10–17. 10.1016/j.eist.2021.06.006.
Schlaufer, C., Kuenzler, J., Jones, M.D., Shanahan, E.A., 2022. The narrative policy framework: a traveler's guide to policy stories. Polit. Vierteljahresschr. 63 (2), 249–273. https://doi.org/10.1007/s11615-022-00379-6.
Smink, M., Negro, S.O., Niesten, E., Hekkert, M.P., 2015. How mismatching institutional logics hinder niche–regime interaction and how boundary spanners intervene. Technol. Forecast. Soc. Change 100, 225–237. https://doi.org/10.1016/j.techfore.2015.07.004.
Smith, A., Kern, F., 2009. The transitions storyline in Dutch environmental policy. Environ. Polit. 18 (1), 78–98. https://doi.org/10.1080/09644010802624835.
Socio-Technical Configuration Analysis (STCA). (2026). https://stca.guide/.
Steinberger, J.K., Roberts, J.T., 2010. From constraint to sufficiency: the decoupling of energy and carbon from human needs, 1975–2005. Ecol. Econ. Spec. Sect.: Ecol. Distrib. Confl. 70 (2), 425–433. https://doi.org/10.1016/j.ecolecon.2010.09.014.
Swilling, M., Musango, J., Wakeford, J., 2016. Developmental states and sustainability transitions: prospects of a just transition in South Africa. J. Environ. Policy Plan. 18 (5), 650–672. https://doi.org/10.1080/1523908X.2015.1107716.
Swyngedouw, E., 2010. Impossible sustainability and the post-political condition. Hrsg.. In: Cerreta, M., Concilio, G., Monno, V. (Eds.), Making Strategies in Spatial Planning: Knowledge and Values. Springer, Netherlands, pp. 185–205. https://doi.org/10.1007/978-90-481-3106-8_11. S.
Swyngedouw, E., 2013. Die postpolitische Stadt. sub\urban. Z. Krit. Stadtforsch. 1 (2), 141–158. https://doi.org/10.36900/suburban.v1i2.100. Artikel 2.
Swyngedouw, E., 2015. Depoliticization („the Political"). Hrsg.. In: Alisa, G.D, Demaria, F., Kallis, G. (Eds.), Degrowth: A Vocabulary For a New Era. Routledge, pp. 90–94. S. https://www.routledge.com/Degrowth-A-Vocabulary-for-a-New-Era/DAlisa-Demaria-Kallis/p/book/9781138000773.
Swyngedouw, E., 2018. Promises of the Political Insurgent Cities in a Post-Political Environment. MIT Press.
Thornton, P.H., Ocasio, W., 1999. Institutional logics and the historical contingency of power in organizations: executive succession in the higher education publishing industry, 1958–1990. Am. J. Sociol. 105 (3), 801–843. https://doi.org/10.1086/210361.
Thornton, P.H., Ocasio, W., Greenwood, R., Oliver, C., Suddaby, R., Sahlin-Andersson, K., 2008. Institutional logics. Hrsg. The SAGE Handbook of Organizational Institutionalism. SAGE, pp. 99–129. S. https://uk.sagepub.com/en-gb/eur/the-sage-handbook-of-organizational-institutionalism/book243619.
Torrens, J., Schot, J., Raven, R., Johnstone, P., 2019. Seedbeds, harbours, and battlegrounds: on the origins of favourable environments for urban experimentation with sustainability. Environ. Innov. Soc. Transit. 31, 211–232. https://doi.org/10.1016/j.eist.2018.11.003.
Truffer, B., Rohracher, H., Kivimaa, P., Raven, R., Alkemade, F., Carvalho, L., Feola, G., 2022. A perspective on the future of sustainability transitions research. Environ. Innov. Soc. Transit. 42, 331–339. https://doi.org/10.1016/j.eist.2022.01.006.
United Nations. (2024). The sustainable development goals report 2024 (S. 49). https://unstats.un.org/sdgs/report/2024/The-Sustainable-Development-Goals-Report-2024.pdf.
Van den Berghe, L.H.G.J., Wieczorek, A.J., 2022. Community participation in electricity markets: the impact of market organisation. Environ. Innov. Soc. Transit. 45, 302–317. https://doi.org/10.1016/j.eist.2022.10.008.
van Dijk, T.A., 2006. Ideology and discourse analysis. J. Polit. Ideol. 11 (2), 115–140. https://doi.org/10.1080/13569310600687908.
Van Gaubergen, J., Paredis, E., Block, T., 2023. Fit-to-transform': an institutional perspective on the empowerment of clothing product-service systems. Environ. Innov. Soc. Transit. 49, 100781. https://doi.org/10.1016/j.eist.2023.100781.
van Mierlo, B., Beers, P.J., 2020. Understanding and governing learning in sustainability transitions: a review. Environ. Innov. Soc. Transit. 34, 255–269. https://doi.org/10.1016/j.eist.2018.08.002.
van Mossel, A., van Rijnsoever, F.J., Hekkert, M.P., 2018. Navigators through the storm: a review of organization theories and the behavior of incumbent firms during transitions. Environ. Innov. Soc. Transit. 26, 44–63. https://doi.org/10.1016/j.eist.2017.07.001.
van Oers, L., Feola, G., Moors, E., Runhaar, H., 2021. The politics of deliberate destabilisation for sustainability transitions. Environ. Innov. Soc. Transit. 40, 159–171. https://doi.org/10.1016/j.eist.2021.06.003.
van Summeren, L.F.M., Wieczorek, A.J., Verbong, G.P.J., Bombaerts, G.J.T., 2023. Blending in, to transform the regime from within: niche hybridisation strategies of Irish energy communities. Environ. Innov. Soc. Transit. 48, 100761. https://doi.org/10.1016/j.eist.2023.100761.
Velenturf, A.P.M., Purnell, P., 2021. Principles for a sustainable circular economy. Sustain. Prod. Consum. 27, 1437–1457. https://doi.org/10.1016/j.spc.2021.02.018.
Weible, C.M., Ingold, K., Nohrstedt, D., Henry, A.D., Jenkins-Smith, H.C., 2020. Sharpening advocacy coalitions. Policy Stud. J. 48 (4), 1054–1081. https://doi.org/10.1111/psj.12360.
Yap, X.S., Heiberg, J., Truffer, B., 2023. The emerging global socio-technical regime for tackling space debris: a discourse network analysis. Acta Astronaut. 207, 445–454. https://doi.org/10.1016/j.actaastro.2023.01.016.