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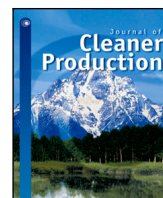
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## Spare or transform? Agency frames in transition intermediaries

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### ABSTRACT

Climate emergency is widely acknowledged. However, our institutions are struggling to find new intervention types to accelerate the transition. This paper analyses this struggle by combining agency theories and discursive approaches to study transition intermediaries, i.e., organizations seeking to foster the transition activities of others. The internal meaning structures of intermediaries are described as interlocking shared action frames, i.e., beliefs and meanings underpinning their activities. These frames are characterized through the definition of pairs of contrasting frame elements along eleven framing dimensions. This conceptualization allows for a semi-quantitative mapping of internal structures. The method is developed and illustrated with the in-depth case study of a Swiss regional utility department running an energy efficiency programme. Analysing a series of exploratory workshops, we find that established frames revolve around technology-oriented, managerial approaches to the transition, ultimately narrowing the range of imaginable interventions. While these are well-studied shortcomings of energy efficiency centred approaches, further observations suggest that these frames underpin the perception of intervention impacts, helping keep staff and recipients involved. To strike a balance between energy saving targets and transformative ambitions, this paper suggests revising programme evaluation logics and reframing technological solutions as responses, rather than substitutes, to practice changes.

### 1. Introduction

With the threat posed by climate change today acknowledged by more than half of the population worldwide (Flynn et al., 2021), governments are enacting increasingly ambitious transition visions. In the process, a number of programmes, agencies and other entities are being set up with the mandate to foster these transitions. These have recently been conceptualized as *transition intermediaries*, i.e., entities seeking to “positively influence sustainability transition processes by linking actors and activities, and their related skills and resources, or by connecting transition visions and demands of networks of actors with existing regimes” (Kivimaa et al., 2019). More specifically, regime-based transition intermediaries are mandated by incumbent actors (namely political institutions) to foster change at system level.

However, stated visions of change appear slow to translate into effective emission reductions (Ritchie et al., 2022; Suzuki et al., 2023). This struggle echoes how the Club of Rome report (Meadows et al., 1972) and the oil shocks in the 1970s temporarily made “energy conservation” a priority (Lovins, 1976), without achieving long term reductions of energy consumption. It is also reminiscent of how the

foundational principles of sustainable development (Brundtland and Khalid, 1987) later waned into “weak sustainability”, in effect preventing large-scale reductions of environmental footprint (Connelly, 2007). This dilution of initially ambitious visions of change has been studied in past years using discursive approaches, i.e. the analysis of the preconceptions, background knowledge, and ideas underpinning policy evolutions (Smith and Kern, 2009; Persson and Klintman, 2022). These approaches typically focus on discursive struggles taking place between incumbent actors and new entrants, usually adopting a national or international scope (Isoaho and Karhunmaa, 2019).

Less commonly, they have been used to understand change within organizations. For instance, Wright and Nyberg (2017) found regressive translation processes hindering the adoption of more sustainable strategies in for-profit corporations. In the field of innovation policy, Diercks (2019) used participatory observations to assess to which extent shifts in discourses regarding system innovation have affected practices and institutional structures of the OECD using the concept of “sticking points” (Waylen et al., 2015). Ulmanen et al. (2022) present a comparable analysis of the challenges faced by a Swedish innovation agency in

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translating transformative innovation policy theory into practice. This empirical research underlines the persistence of dominant discourses within the organizations at hand and the rigidity of institutional processes. Yet, research on transition intermediaries has focussed on their role within the wider system (Kivimaa and Martiskainen, 2018), with little insight on their internal discursive structures.

A finer understanding of such internal discursive structures appears important on two accounts. First, externally, they may be an important component of the influence of these intermediaries, through the world-views that they enact and convey. Whether this influence aligns with the explicit mandate of the intermediary in not necessarily warranted. Social movements research has leveraged the notions of collective action frames and framing processes to explain the action and impact of such movements (Snow et al., 1986; Parks, 2022), raising discussion on whether the frames that they put forward align with or contribute to their stated goals (Buzogány and Scherhauser, 2022). To the best of our knowledge, these conceptual tools are yet to be applied to the study of transition intermediaries.

Second, internally, discursive structures affect the range of conceivable interventions of the intermediary, thus ultimately also its impact. This interplay has been conceptualized in a variety of agency theories, drawing attention to the interaction between external/internal structures – namely meaning structures – and agency, i.e. the “ab[ility] to intervene in the world, or to refrain from such intervention” (Giddens, 1989 [1986], p.14) (implying dimensions of capacity and intent). This interaction is arguably of major significance for entities that explicitly seek to foster transitions, but the importance of agency has been obscured in transition frameworks (Pesch, 2015; de Haan and Rotmans, 2018), with the link to former agency theories more often than not left implicit (Koistinen and Teerikangas, 2021). In particular, while the role of diverse actors in sustainability transitions is a topic of growing interest (Fischer and Newig, 2016), the agency of incumbent actors is still poorly understood (Kump, 2023), with intra-organizational level processes being given little attention compared to system-level stakeholder roles and interaction (Teerikangas et al., 2022a).

The present article puts the focus on internal meaning structures of transition intermediaries, which have been little explored to date. Methodologically, it is concerned with *how to describe such structures comprehensively and in a comparable manner*, where existing works provide narrative accounts. It then provides evidence on *which meaning structures are prevalent in regime-based transitions intermediaries, and how they are constructed*, in an energy transition context where increasingly ambitious goals are set to these actors. Elaborating on existing discursive approaches, meaning structures are conceptualized as the combination of *shared agency frames*, producing a semi-quantitative framework to describe established and emergent perspectives within transition intermediaries. This approach is refined and illustrated using a series of exploratory workshops within a regional utility department leading an energy efficiency programme, qualifying as a *regime-based transition intermediary* (Guibentif and Patel, 2023).

Section 2 sets out introducing transitions intermediaries as agents and elaborating on discursive frames as a conceptual tool for their study. Section 3 then exposes the case study and presents how relevant framing dimensions were identified and pinpointed in the research material. Section 4 describes the shared agency frames of the intermediary at hand, through the formulation of identified perspectives and an overview of their (co-)occurrence in the material. Section 5 finally discusses these results in light of agency theories, underlining how the interactions between frame elements favour certain modes of intervention over others. This echoes a number of criticisms formulated in the energy field against efficiency-based approaches to the transition. Section 6 concludes with a few options to frame energy efficiency in a more comprehensive way in order to enable a multi-dimensional transformation.

## 2. Theoretical approach

This section presents how agency frameworks have been applied to the study of sustainability transition intermediaries in recent literature. It then briefly elaborates on existing discursive approaches to present *shared agency frames* as an analytical device to describe the internal structures of agents.

### 2.1. Transition intermediaries as agents

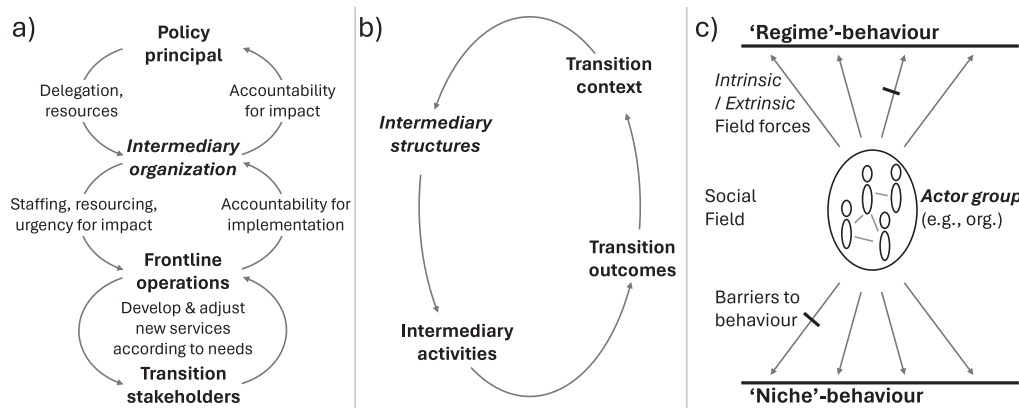
The importance of “bridging institutions” for the diffusion of new technologies was first conceptualized in innovation studies (Carlsson and Jacobsson, 1994; Howells, 2006). It was soon used in the maturing field of sustainability transitions (Van Lente et al., 2003), where diverse types of intermediaries and intermediation roles were identified, facilitating changes at different scales. Kivimaa et al.’s (2019) influential typology of (a) systemic, (b) regime-based, (c) niche, (d) process, and (e) user transition intermediaries, drawing from the multi-level perspective, illustrates how this research has focussed on the roles played by these actors (Geels, 2019). This approach arguably misses (1) the reverse influence of context on transition intermediaries and (2) their complex internal configurations, for instance their different natures as user associations, governmental agencies, enterprises, or academic institutions (Kanger, 2024).

These aspects link to the notion of agency. In broad terms, agency refers to the ability of actors to purposefully and effectively trigger and steer change in the structures that they are immersed into (Giddens, 1989 [1986]). This ability has been disputed for at least two decades in the transitions literature (Shove and Walker, 2007), namely as a criticism of assumptions behind transition management approaches (Loorbach et al., 2008). The interplay between the actions of agents and the cognitive, social and material structures within and through which these actions take place has been at the core of decades of debate in different sociology fields, permeating transitions studies (Teerikangas et al., 2022b). Nevertheless, in their review of “actors and agency in sustainability transitions”, Fischer and Newig (2016) identify several works exploring the services provided by transition intermediaries, but none concerned with their agency as such. In their more recent review of the “debate if agents matter vs. the system matters in sustainability transitions”, Koistinen and Teerikangas (2021) find a limited number of works that explicitly use agency frameworks. Among these, only one<sup>1</sup> explicitly uses the lens of intermediation, studying the ability of individual “ecopreneurs” to trigger changes in production and consumption patterns through business model innovation (Ramos-Mejía and Balanzo, 2018).

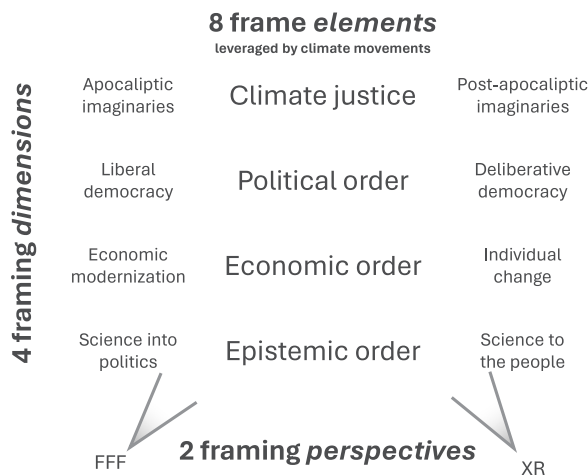
It could be argued that *intermediation* and *agency*, as two sides of the same coin, are one manifestation of this very debate: the former concept puts the focus on the active role(s) that actors can play in facilitating change processes, while the latter emphasizes the limited ability of these actors to actually influence structural change. Some recent attempts at explicitly combining these views, sketched on Fig. 1,<sup>2</sup> illustrate the potential of exploring this tension. (a) Talmor et al. (2019, 2022), inspired from earlier work on principal-agent dynamics in policy implementation (Braun, 1993), conceptualize intermediaries as making the link between “policy principals” and “transition stakeholders”. This implies that their evolution is constrained both by their political mandate and the needs of stakeholders. They further outline the role of intermediary staff in translating these mandate and needs into “services”. (b) Tanja Manders et al. (2020) use Stones’ (2005) strong

<sup>1</sup> Avelino and Wittmayer (2016) used the word “intermediary” to conceptualize a “Third sector” in-between state, community and market sectors, but this implies a different definition than that of transition intermediaries.

<sup>2</sup> Unless otherwise stated, all figures in this paper were produced using Microsoft Office suite.



**Fig. 1.** Three representations of intermediaries as agents in the literature (figures adapted from the corresponding source). (a) [Talmar et al. \(2022\)](#) adopt a principal-agent perspective inspired from [Braun \(1993\)](#) to explain how an intermediary adapts its role according to its political mandate and to the needs of beneficiaries. (b) [Tanja Manders et al. \(2020\)](#) adapt [Stones' \(2005\)](#) structuration cycle into a heuristic framework for a longitudinal analysis of the evolution of an intermediary in a changing context. (c) [Kump \(2023\)](#) applies [Lewin's \(1997 \[1951\]\)](#) field theory in light of the multi-level perspective to describe incumbent actors (not specifically intermediaries) as balancing between opposing niche and regime poles.



**Fig. 2.** Conceptual framework for the description of discursive frames, illustrated with [\(Buzogány and Scherhauser, 2022, Table 3\)](#): this and other authors explore how different entities (here two climate movements) frame issues to achieve impact. In the present paper, frame elements are conceptualized as the result of adopting different perspectives on a number of framing dimensions. Meaning structures within a single entity are then described as an assemblage of such frame elements (shared agency frames). An empirical exploration of these structures thus involves identifying relevant framing dimensions and perspectives.

structuration theory (himself building on [Giddens, 1989 \[1986\]](#)), which emphasizes four aspects: (1) internal structures, (2) external structures, (3) active agency and (4) outcomes. They adapt these four aspects into a heuristic for an empirical description of the joint evolution of a Dutch regime-based transition intermediary and its context. These two works focus on regime-based transition intermediaries, for which contextual factors are arguably particularly determinant. Lastly, (c) [Kump \(2023\)](#) uses [Lewin's \(1997 \[1951\]\)](#) field theory, in light of the notions of niche and regime from the multi-level perspective ([Geels, 2002](#)), to conceptualize two poles that influence incumbent actors at large (not only intermediaries) through conflicting field forces.

**2.2. Internal structures as discursive frames**

In line with the agency theories on which they rely, these works pinpoint how the influence of contextual factors is primarily exerted through their assimilation by agents through (a) front-line operations staffing choices, (b) changes in intermediary structures, or (c) declination as intrinsic forces (notwithstanding material constraints and overt

power struggles). Consequently, [Stones \(2005\)](#) himself suggested (i) the “identif[ication of] the general-dispositional frames of meaning of an agent-in-focus” and (ii) its “conjuncturally-specific internal structures” as the starting point of “agent’s conduct analysis” (p. 123). The first refers to the general world-view of the agent, including elements of culture and societal discourse, and the second to the “situated agent’s sense of the normative expectations that come with the position” (p. 89). [Stones](#) however foregoes an exact definition of “frames”.

Despite this eminently discursive character of agency ([Pesch, 2015](#)), internal structures of agents in sustainability transitions have been object of relatively little research. When at all given explicit focus, they are typically described through a narrative account of how concepts from one transition framework are perceived and eventually acted upon by agents, as done e.g. by [Kump \(2023\)](#) or [Upham et al. \(2018\)](#). While useful for longitudinal analysis and illustrative purposes, such narrative accounts are hardly suited for conceptual elaboration and comparative analysis. The focus on perceptions of the system further misses the reflexive component of agency, whereby agent practices may be affected by their perceptions about those practices. More generally, reviewing discursive approaches in energy transition studies, [Isoaho and Karhunmaa \(2019\)](#) find that they are often used inductively to “analys[e] storylines and focus on contestation surrounding problem definitions” (p. 938), at national (mostly UK) or international scales, often on specific technologies (e.g., nuclear or wind). This orientation arguably owes significantly to the nature of the data usually available for qualitative research (public statements, interviews, surveys etc.), which are always given some performative purpose by speakers. Accordingly, discourse analysis has been favoured.

This article instead draws upon discursive approaches used in social movement studies to formalize the description of internal meaning structures of transition intermediaries. [Benford and Snow \(2000\)](#), in particular, define *collective action frames* as “action oriented sets of beliefs and meanings that inspire and legitimate the activities and campaigns of a social movement organization” (p. 614). They draw from the goffmanian definition of frames as the basic elements allowing individuals to define and make sense of “social [events] and [their] subjective involvement in them” ([Goffman, 1975, p. 10](#)), itself drawing from the original introduction of the concept by [Bateson \(2000 \[1972\]\)](#). This conceptualization has opened the way to an exploration of frame taxonomies, for instance distinguishing diagnostic, prognostic, and motivational frames, or different dimensions of master frames ([Buzogány and Scherhauser, 2022; Parks, 2022](#)). However, resulting research still largely focusses on the adoption and leveraging of selected frames by distinct entities to achieve their aims.

Extending collective action frames, this article defines *shared agency frames* as the shared beliefs and meanings underpinning the activities

of an organization (i.e., justifying and explaining, in the eyes of organization members, the design of these activities). It seeks to provide a comprehensive and nuanced understanding of such frames as the building blocks of internal meaning structures of organizations. As illustrated on Fig. 2, shared agency frames are thus characterized by identifying relevant framing *dimensions*, along which different *perspectives* are given more or less weight. More precisely, drawing from long-lasting debates in transition studies, the analysis seeks to identify pairs of “contrasting” perspectives over each dimension. Reformative and radical positions in non-governmental organizations (Dzhengiz et al., 2021), adaptive and a transformative imaginaries of solar deployment (Hirt et al., 2022), collaborative and technocratic discourses of policymakers (Ulmanen et al., 2022), or mechanistic and vitalist tendencies in circular economy approaches (Winslow and Coenen, 2023) are examples of such contrasting concepts.<sup>3</sup> Feola (2020) further explores a variety of principles for “societies open otherwise”, contrasting e.g. separation & relation, or externalization & responsibility.

In what follows, for the sake of readability, these two perspectives are designated as *established* and *emergent*.<sup>4</sup> However, this terminology is not meant to imply that both are contradictory or that the former should be replaced by the latter on the long run. On the contrary, these dichotomies necessarily hide more nuanced positions. Taking a lead from Bateson’s (2000 [1972]) view of the mind (and its environment) as an “aggregate of organisms interlocking in their relationships” (p. 490), this article posits that frame elements are combined into more complex framing structures. These structures may include elements from contrasting perspectives, reflecting more or less explicit internal conflicts. This conceptualization allows to provide clear-cut summaries of possible viewpoints – thus opening these to theoretical validation and comparative analysis – while preserving a nuanced description of the meaning structures prevalent in organizations (i.e., widely shared by members) such as transition intermediaries.

### 3. Case study approach

The conceptualization presented in Section 2.2 was applied to the analysis of a series of workshops that took place between May 2021 and February 2022 at éco21, a regional energy efficiency programme operated by the public utility of the canton of Geneva, in Switzerland (*Services industriels de Genève – SIG*). This section describes this case study and details the coding and analysis of collected material.

#### 3.1. Case study and research setup

Éco21 was launched by SIG in 2007 following a regulatory injunction. It was initially designed as a demand-side management programme aimed at stabilizing the electricity consumption of the region (Jeanneret, 2011). However, it was soon considered as a key value proposition of the utility, both to retain clients in a liberalizing market, and to serve the objectives of company shareholders (the region and municipalities). Over the past decade, the programme was entrusted to a relatively autonomous utility department<sup>5</sup> of over 30 full-time-equivalent positions with an annual budget of several million Swiss

<sup>3</sup> A third imaginary is that of the collapse of society altogether, leading to evasion strategies (Flipo, 2014), but this is arguably less relevant for the study of intermediaries, which by definition aim at changing existing regimes rather than escaping them.

<sup>4</sup> The assignation of frame elements to one of these two perspectives *in abstracto* (before evidence has been collected) is a matter of contextualization, similar to how the definition of niche and regime depends on the considered time and location (Kanger, 2021).

<sup>5</sup> In what follows, we use the term *éco21* to refer both to the programme and to the underlying organizational structure, which has its own visual identity, dedicated staff members, specific online platforms etc. In that sense, éco21 can be seen as a transition intermediary.

francs. It runs over 20 sub-programmes targeting diverse technologies and beneficiary segments, today encompassing electricity, CO<sub>2</sub> emissions, waste, and water savings.

At the end of 2019, regional authorities declared climate emergency under the push of civil society. Éco21 thus faced a potentially drastic increase in quantitative policy objectives, in light of which current operations and practices appeared insufficient. A reflection process was thus launched to revise programme goals and activities. The first author (TG) entered this process as part of his tasks under a collaboration agreement with the utility, according to which he worked 40% of his time on supporting programme operations.<sup>6</sup> While preventing an upfront design of the research, this provided the opportunity for exceptionally in-depth observations of internal processes and discourses. As the conduct of the process was progressively entrusted to TG, an action research approach was adopted, primarily seeking to facilitate the emergence of new directions of change for the programme. The research presented in this paper was designed and conducted in parallel to this field work. The value of collected material was enhanced by the COVID-19 outbreak, which was mentioned throughout the workshops as an invitation to think differently (it was framed by many circles in Switzerland as an opportunity to re-think social practices, reduce environmental impact, and refocus on human interactions). This setup, as well as the size and longevity of the programme, warrant the study of éco21 as a “critical case” (Flyvbjerg, 2006) of regime-based transition intermediaries. In other words, the framing dimensions and perspectives elicited from this research appear likely to be relevant for the study of similar organizations, although their articulation in other cases is expected to vary.<sup>7</sup>

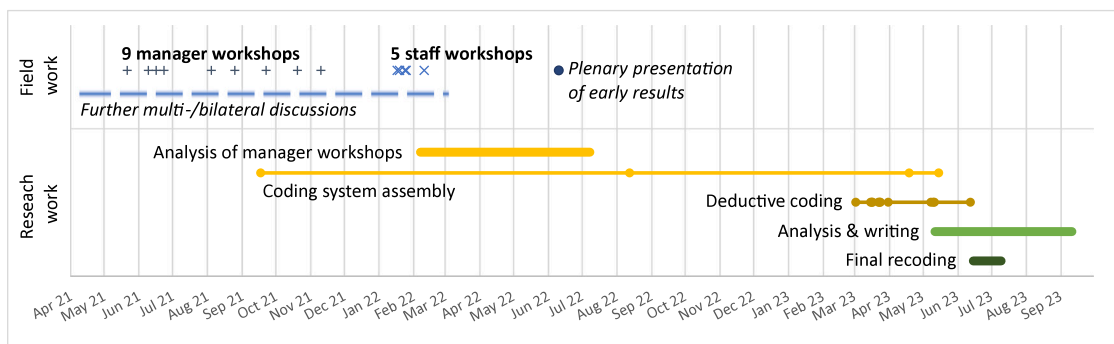
Fig. 3 and Table 1 provide the timeline of the research and the list of workshops. Nine workshops first took place as open-ended discussions with the programme director and the three unit heads on the activities, intents, and vision of éco21. Guibentif and Patel (2023) provide a detailed analysis of this first phase, which totalled 17.5 h and led to the conception of a consultation canvas meant to gather input from staff members about the content and maturity of their sub-programmes. This canvas was used to orient five semi-structured focus groups, totalling over 12 h with 19 staff members.<sup>8</sup>

Participants to these focus groups were invited to discuss their long-term vision for the sub-programme(s) they were involved in and to brainstorm about imaginable actions or tools that could help to materialize this vision. The workshops were presented and facilitated as a space for thinking aloud, without the need to convince nor to report on achievements. Ideas were summarized on post-its and arranged on a poster canvas in order to provide a structured written trace of discussions without hindering spontaneity. The first author facilitated all the workshops, drawing from his composite status as both a “neutral

<sup>6</sup> TG had worked full-time for a sub-programme on efficient lighting from March 2018 to February 2019, and was since contributing to IT development projects, with practically no affiliation to any programme team. The COVID outbreak and subsequent lock-down periods further reinforced this position as an “external insider”.

<sup>7</sup> Other contexts might also warrant attention to different dimensions. It should in particular be underlined that the present research was conducted in Switzerland between 2021 and 2022, i.e., in the context of a wealthy “Western” society at a time of heightened concern about the environmental threats posed by modern patterns of consumption. Special care would have to be put in translating results to different regions and times.

<sup>8</sup> One earlier pilot staff workshop took place following a slightly different structure. Further bilateral discussions were conducted in an unsystematic way as preparation or as follow-up to the focus groups. Four of the initially identified focus groups never met due to COVID-constraints and/or lack of time, but filled canvasses on the basis of individual reflection and non-facilitated discussions. This additional material was not included in the analysis to improve the homogeneity of the corpus, but preliminary analysis suggests frames similar to those identified from the focus groups.



**Fig. 3.** Timeline of the research. The data gathered during manager workshops was first analysed through the lens of transition intermediation functions by Guibentif and Patel (2023). The initial ideas for the coding system were consolidated at that stage. Later coding and analysis for the present research also covered staff workshops and led to further refinement of identified framing dimensions and perspectives. A final recoding was performed to ensure consistency.

**Table 1**

List of the workshops included in the material. Participants are segmented into programme head (PH), unit heads (UH – the programme comprises 3 units), sub-unit heads (SH), other staff members (St – including temporary staff), and internal consultant (C). Top: manager workshops, with details on the topic of each workshop (adapted from Guibentif and Patel, 2023). Bottom: staff workshops, with the list of concerned sub-programmes – reflecting the wide programme scope.

Date	Duration	Participants	Outcomes/Subprogramme scope(s)
21.05.2021	01h45 <sup>a</sup>	PH, 3 UH, C, utility HR manager	General project governance
09.06.2021	02h00 <sup>a</sup>	PH, 3 UH, C	Matrix offerings-beneficiaries
16.06.2021	02h00 <sup>a,c</sup>	PH, 3 UH, C	Statements on the stakes and missions of the programme
23.06.2021	02h00 <sup>d</sup>	PH, 3 UH, C	Discussion of the revised programme energy saving objectives
04.08.2021	02h40 <sup>b,e</sup>	PH, 3 UH	“Cartographies” of the programme
25.08.2021	02h00 <sup>d</sup>	PH, 3 UH, C	Discussion on the maturity stages of sub-programmes
22.09.2021	02h00	PH, 3 UH, C	Consultation canvas – first version in the form of a matrix of maturity stages across programme “domains”
20.10.2021	01:40 <sup>d</sup>	PH, 3 UH, C, 3 SH	Feedback from pilot consultations using the canvas
10.11.2021	01:30 <sup>b</sup>	PH, 3 UH	Final version of the canvas and logistics of subsequent staff workshops
17.01.2022	02h23	2 SH, 1 St, 1 UH	Municipalities (incl. waste management)
19.01.2022	03h25	2 SH, 4 St	Small and medium enterprises (incl. waste management)
24.01.2022	01h12 <sup>b</sup>	2 SH, 3 St	Large enterprises (incl. waste management)
25.01.2022	02h57	2 SH, 1 St	Heat pump installations in multi-family buildings; solar panel installations on single-family houses
10.02.2022	02h13	2 SH, 1 St, PH	Real estate owners and managers; building retrofit projects

<sup>a</sup> Online workshops.

<sup>b</sup> Hybrid workshops.

<sup>c</sup> Recording lost due to a technical issue. Extensive written notes taken during the meeting were included in the analysis.

<sup>d</sup> Low sound quality due to COVID-19 social distancing measures. Not all the interventions could be transcribed.

<sup>e</sup> Full recording until time 01h52. Most interventions after that are lost due to a technical issue.

researcher” and a “trustworthy colleague” to enhance the density of discussions. Research participants were invited based on their link to the focus group scope, irrespective of organizational affiliation and hierarchical ties, which they were encouraged to ignore. Appendix A provides more details on these workshops.

### 3.2. Coding and analysis process

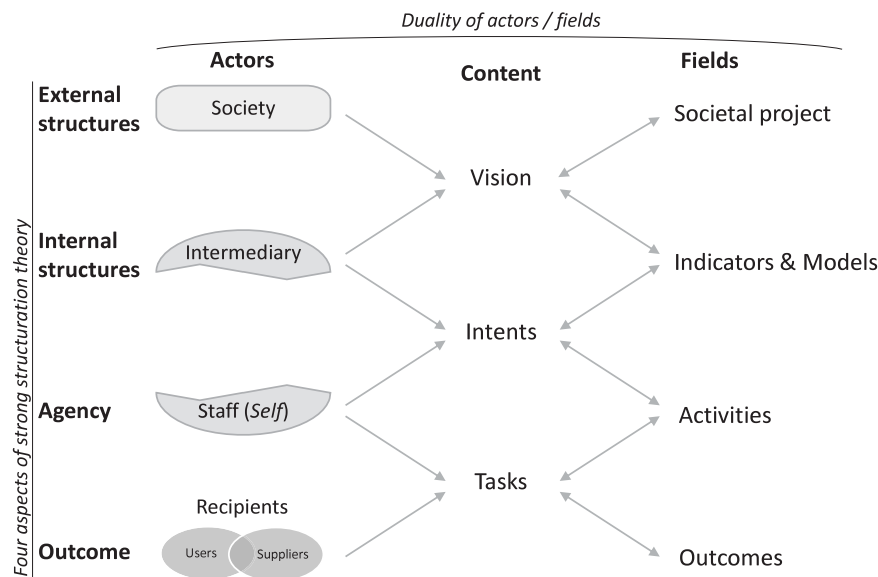
All workshops were recorded and transcribed before analysis.<sup>9</sup> The initial coding system was assembled inductively starting as early as September 2021, by listing pairs of complementary concepts used in transition research (i.e., identifying tentative framing dimensions and corresponding perspectives). This system was refined in parallel to a first analysis of manager workshops, which elicited different programme (1) intents and (2) tasks (Guibentif and Patel, 2023). These were complemented with contrasting (3) diagnostic, (4) prognostic and (5) motivational vision statements (Buzogány and Scherhauser, 2022). As the analysis progressed, the identified dimensions were articulated into the intermediary agency framework presented in Fig. 4. Care was

<sup>9</sup> Using the online transcription tool oTranscribe.org and the CAQDAS software Atlas.ti

taken to verify the inclusion of all inductively identified elements in the formulation of contrasting perspectives along these dimensions, resulting in a coding system of 22 (two perspectives along eleven dimensions) frame elements, described in Section 4.1.

Workshop transcripts were then coded applying a simultaneous hypothesis coding approach (Saldaña, 2009): following the conceptualization of internal meaning structures as the articulation of simpler frame elements, participant statements were coded wherever they could be linked to two of the pre-identified frame elements of the coding system. The setup of the workshops as “think-aloud” spaces allowed to leave aside rhetorical considerations during coding and analysis. Participant statements were thus used as proxy for their thoughts and interpreted according to their “face value” in the context of the ongoing discussion. They were coded according to the frames referred to – in the case of reflexive statements – or the frames apparently drawn upon. Quotes in this paper are provided with the corresponding pair of codes, along with the document and quote IDs in Atlas.ti.

The coding was performed by TG, taking care to pinpoint individual frame elements, rather than coding for specific pairs. Participation of other authors or third parties was not sought because of confidentiality concerns and technical issues (namely language). The potential self-confirmation bias arising from coder subjectivity was addressed by spacing the iterative process of coding, recoding and analysis over



**Fig. 4.** Intermediary agency dimensions identified through the present analysis. Eleven dimensions were identified empirically and articulated along (a) the four aspects of strong structuration theory: (1) external structures, (2) internal structures, (3) active agency and (4) outcomes (Stones, 2005), and (b) distinguishing between (i) field, (ii) actor, and (iii) content levels, inspired from Lewin's (1997 [1951]) field theory and principal-agent theory. The arrows in this figure trace an idealized linear, albeit reflexive, process but do not reflect well the intricacy of the structuration cycle. See Guibentif and Patel (2023) for an early version of this framework and to Section 5.1 for a discussion of it.

five months, informed by varying field experiences and readings. This allowed to enhance “heuristic fluidity [...] to prioritize insightful qualitative analytic discovery over mere mechanistic validation” (Saldaña, 2009, p.13). The coding system was accordingly adjusted along the process. A final recoding was performed after refining the formulation of frame elements: the sets of quotes coded under each co-occurrence were reviewed to verify consistency and critically assess possible biases. A short summary was written for each set (in total 152 non-empty co-occurrences out of 231 theoretical possibilities), further categorized under 11 themes for retrieval, presented in Table C.1 in the appendix. Given the homogeneity of the corpus, the juxtaposition of all identified quotes are assumed to reflect the prevalence of shared agency frames within the organization. Code (co)-occurrences shall thus provide a semi-quantitative account of the internal meaning structure of éco21, presented in Sections 4.2 and 4.3.

#### 4. Results

The first outcome of the analysis is the identification of framing dimensions and perspectives. These are presented in Section 4.1 as an intermediary agency framework and tables of contrasting frame elements. Using this coding system on the material resulted in a representation of internal meaning structures of éco21 as a  $22 \times 22$  co-occurrence matrix reflecting the coherence (Section 4.2) and cross-pollination (Section 4.3) of established and emergent perspectives.

##### 4.1. Assembling the coding system: two perspectives on intermediation activities

Fig. 4 articulates the framing dimensions identified as relevant for the analysis of éco21. This framework results from identification and combination of tentative dimensions from the research material and the literature. An intermediate result of this process is provided in appendix B. In light of agency theories, this framework describes the structuration of intermediary activities (represented through the four aspects of strong structuration theory of Stones, 2005, along the vertical axis) as a reflexive process through which the perceptions of external and internal factors, dually seen as actors or fields generated by these actors (left and right), are integrated into the content of intermediary interventions (centre). While the focus of this paper is to

better characterize the perspectives prevalent within éco21 on each of the dimensions composing this framework, the theoretical value of their articulation is briefly discussed in Section 5.1.

Tables 2, 3, and 4 then detail the frame elements contrasted along each dimension of this framework. Care was taken to ensure complementarity, producing formulations that could be simultaneously adopted by research participants on an *it depends* basis, drawing from our direct anchoring in the field. Some consistency was sought in detailing the established and emergent perspectives, leading to their declination into contrasting *spare* and *transform* perspectives along the content dimensions, *vertical* and *horizontal* perspectives along the actor dimensions, and *positivist* and *constructivist* perspectives along the field dimensions. These terms are further described in the remainder of this section.

Table 2 details the *spare*<sup>10</sup> (established) and *transform* (emergent) perspectives along content dimensions. Under the former, the vision of transition intermediaries is presented as the decarbonization of the economy ( $C_{vis}<$ ), with the central intent (or mission) of the intermediary being to individually support transition stakeholders in reducing their consumption ( $C_{int}<$ ), and with staff tasks therefore revolving around the operation of support schemes ( $C_{tas}<$ ) in order to maximize penetration and volume. Under the latter, transformation of the entire society (including consumption and production patterns) is sought in order to reduce a range of footprint components ( $C_{vis}>$ ), meaning that transition stakeholders need to be inspired and mobilized around this new vision of society ( $C_{int}>$ ), so that staff tasks revolve around the design and coordination of open processes ( $C_{tas}>$ ) to amplify emergent transition dynamics.

Table 3 then outlines a vertical (established) and a horizontal (emergent) perspective over actor dimensions. Under the former, society

<sup>10</sup> We choose the word *spare* rather than the more usual “save” (energy) for its sense of “reserv[ing], retain[ing], set[ting] aside or stor[ing] up for some particular use or purpose” (Oxford English Dictionary, 2023) – conveying a discursive construct that goes beyond achieving reductions (e.g., in energy consumption) and links more broadly to meticulous field work and incremental change. Note that we refrain from opposing “efficiency” and “sufficiency” because the original definitions of these terms are found to be increasingly interpreted from different perspectives.

**Table 2**  
Summary of content frame elements.

	“Spare” perspective	“Transform” perspective	
	Vision		
Cvis<	<b>Decarbonization:</b> Net positive carbon emissions are threatening the viability of our civilization and must be brought to zero by decarbonizing the economy, particularly the energy consumption.	<b>Transformation:</b> Some human activities are threatening life on earth and should be halted, implying a deep transformation of consumption and production patterns, particularly of energy-intensive products and services.	Cvis>
	Intents		
Cint<	<b>Support-to-grow:</b> The intermediary shall support the implementation of individual measures, putting forward and enhancing the corresponding economic benefits (or regulatory constraints where applicable). This will provide the basis for the growth of a network of pioneers, ultimately involving the entire milieu.	<b>Mobilize-to-grow:</b> The intermediary shall put forward an open, mobilizing, cooperative, ambitious, and empowering vision of the transition, supported by the collective co-benefits of the transition, and legitimized by the moral obligation to avoid planetary collapse. Mobilized stakeholders shall then be brought together to foster concrete measures on the ground.	Cint>
	Tasks		
Ctas<	<b>Operate-then-improve:</b> Staff should focus on operating activities to maximize programme output (e.g. the volume of certified energy savings), with design and strategising phases dedicated to the optimization of these operations in reactive mode.	<b>Create-then-test:</b> Staff should focus on pro-actively designing and coordinating new options to deepen impact, with operational phases kept to a minimum and dedicated to pilot projects, process facilitation, and outsourcing.	Ctas>

**Table 3**  
Summary of actor frame elements.

	Vertical perspective	Horizontal perspective	
	Societal actors		
Asoc<	<b>Competition-first:</b> Society is structured by competition and power relationships, each actor rationally maximizing its own profit and resisting change (if needed applying denial and evasion strategies).	<b>Cooperation-first:</b> Society is structured by cooperation dynamics and human relationships, each actor being sensitive to its role in society and change-ready if needed.	Asoc>
	Intermediary organization		
Aorg<	<b>Pyramidal:</b> Power and change are imposed top-down, each level defining the objectives, remits and resources of the lower level(s). Accordingly, the intermediary has a managerial role (unless being itself managed), formalizing, contracting, monitoring, nudging, or otherwise controlling the actions of others.	<b>Shared:</b> Power and change management can be distributed between interdependent but self-governing organizational units, each collaboratively defining their own objectives, remits and resources. Accordingly, the intermediary has a facilitator role (where not itself taking part in a participatory process), opening spaces for co-creation, networking, or otherwise fostering the initiatives of others.	Aorg>
	Staff members		
Asel<	<b>Distancing:</b> Staff members distance themselves from their tasks and recipients, reflexively or in disconnect with their overarching objectives (responsibility dilution). Rationality, automation, formalized processes and remote interactions shall enhance efficiency. This might however lead to a lack of meaningfulness at work.	<b>Involvement:</b> Staff members are fully involved in their activities, in close contact with recipients, and endorsing their objectives. Empathy, flexibility, and trust relationships enhance impact. This might however lead to being emotionally affected.	Asel>
	Recipients		
Arec<	<b>Conciliate:</b> Messages need to be customized in order to feel familiar and reassuring. In particular, the impact and benefits of incremental singular changes should be put forward (e.g., through financial incentives) to encourage action. Nevertheless, singular responsibility should be downplayed to avoid guilt or discouragement.	<b>Unsettle:</b> Messages need to be universal, coherent, and challenge the status quo. In particular, the potential role of each and every actor on collective change should be put forward to encourage action, while singular responsibility should be amplified to foster a feeling of accountability.	Arec>

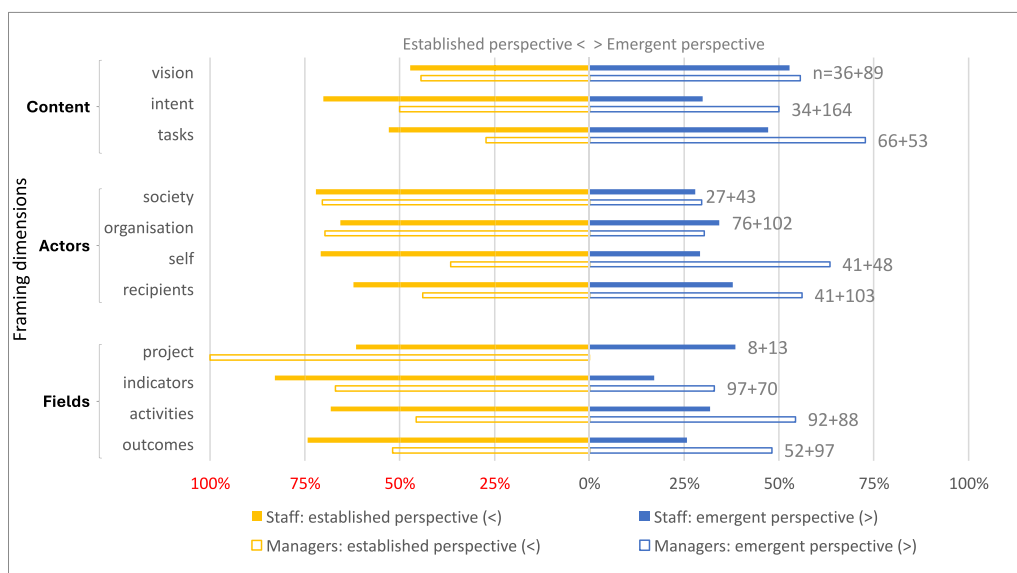
appears to be structured by power relations, meaning that entities compete with each other (Asoc<) and that the role of a regime-based intermediary is to manage (Aorg<) them. Staff members are accordingly expected to take an external viewpoint (Asel<) to nudge recipients (Arec<) in doing “what they have to do” (84:438, Arec</Aorg<). Under the latter, society appears to be structured by cooperation and interdependency structures (Asoc>), implying that the intermediary may be involved in participatory processes (Aorg>). Staff members should thus involve at the same level as their counterparts (Asel>), putting forward

the magnitude of the shared burden (Arec>) to make them embark on ambitious collective change.

Table 4 lastly describes how the fields generated by these actors can be framed adopting a positivist (established) or a constructivist (emergent) perspective. In the former case, intermediaries focus on the outcomes of their action in terms of technological changes (Fout<) while putting forward the products (subsidies, trainings...) made available through their activities (Fact<) and evaluating them through quantitative indicators (Find<), namely in terms of their contribution to

**Table 4**  
Summary of field frame elements.

	Positivist perspective	Constructivist perspective	
	Societal project		
Fpro<	<b>Wealth:</b> Economic growth and innovation, along with the wealth they ensure, are the cornerstones of modern societies and a pre-requisite for individual well-being and successful organizations.	<b>Relationships:</b> Rich relationships and mutual assistance are the cornerstones of society, providing individuals with the resources and opportunities to develop to their full potential and enhance their well-being.	Fpro>
	Indicators and models		
Find<	<b>Quantitative:</b> Reality can be objectified, namely through quantification. Intervention results can and should be deterministically assessed and optimized. Specialization in techno-economic fields are thus of most value to steer action.	<b>Qualitative:</b> Reality is complex and constructed differently depending on stakeholders. Intervention processes can and should be reflexively assessed and improved. A holistic understanding of complex socio-environmental dynamics is thus of most value to steer action.	Find>
	Intermediation activities		
Fact<	<b>Products:</b> The intermediary shall produce the appropriate tools, knowledge base, and incentive schemes for stakeholders to implement and ultimately benefit from their transition.	<b>Processes:</b> The intermediary shall facilitate dynamics of change, in particular the involvement of stakeholders for co-designing and implementing the most appropriate transition tools for themselves.	Fact>
	Intermediation outcomes		
Fout<	<b>Infrastructure changes:</b> Transition will be achieved through optimizing and electrifying energy use and using renewable sources to cover remaining needs. Stakeholders should thus be encouraged to make the most virtuous choices and adopt appropriate behaviours in that respect.	<b>Changes in practices:</b> Transition will be achieved if high footprint activities and products are abandoned in favour of less impactful ones. The large-scale diffusion of low-footprint societal practices and business models should therefore be fostered.	Fout>



**Fig. 5.** Relative occurrences of contrasting frame element by framing dimension and participant type. Quotation counts *n* are given for staff members+managers.

collective wealth (Fpro<). In the latter case, outcomes are framed as practice changes (Fout>) enabled by the processes facilitated through intermediation activities (Fact>) and shall therefore be evaluated qualitatively (Find>), taking into account their benefits in terms of increased social interactions and well-being (Fpro>).

**4.2. Applying the coding system: internal coherence of perspectives**

The frames thus defined were used for a simultaneous hypothesis coding of the research corpus, as described in Section 3.2. The number of occurrences of frame dimensions in workshop transcripts and the relative prevalence of each perspective are provided in Fig. 5. This figure confirms that what was termed as the *established* perspective is indeed

more prevalent in the statements of staff members, except along the *vision* dimension, where the transformative role of éco21 is increasingly put forward. The exploratory nature of the workshops, in view of the magnitude of political goals, led managers to advocate for alternative approaches along several dimensions, calling for an enhancement of activity process impacts and ramping up the involvement of staff members in high value added tasks, beyond operational routines. However, interestingly, this trend is yet to be followed by staff members – despite an explicit guide to do so, as provided by the consultation canvas – illustrating a difficulty in translating ambitious change visions at operational level. At the same time, established perspectives on framing dimensions linked to the societal and organizational structure remain relatively little questioned, when at all mentioned.

**Table 5**  
Co-occurrence matrix of frame elements within the established (left) and emerging (right) perspectives.

	Fpro<wealth	Cvis<decarbonization	Asoc<competition	Find<quantitative	Aorg<pyramidal	Cint<support	Fact<products	Arec<conciliate	Fout<infrastructures	Ctas<operate	Asel<distancing	Fpro>wellbeing	Cvis>transformation	Asoc>cooperation	Find>qualitative	Aorg>shared	Cint>mobilize	Fact>processes	Arec>unsettle	Fout>practices	Ctas>create	Asel>involvement	
877	16	2	0	0	0	2	2	0	3	0	0	2	1	0	0	1	0	0	0	0	0	0	264
Fpro<wealth	16	2	0	0	0	2	2	0	3	0	0	2	1	0	0	1	0	0	0	0	0	0	264
Cvis<decarbonization	58	4	12	8	3	3	2	6	0	3	0	5	1	4	1	3	6	4	1	1	1	1	26
Asoc<competition	50	0	0	7	5	1	11	6	1	0	0	0	2	2	3	1	0	0	0	0	0	0	13
Find<quantitative	123	0	0	24	7	10	7	11	4	2	0	2	2	9	0	2	10	2	2	2	2	2	28
Aorg<pyramidal	120	0	0	18	10	6	4	5	4	0	0	5	6	5	1	7	2	3	4	3	3	3	34
Cint<support	132	0	0	10	14	9	15	4	0	0	0	5	3	3	0	5	2	6	5	2	6	5	26
Fact<products	102	0	0	10	6	10	3	0	0	0	0	3	5	5	4	4	3	5	4	4	3	4	43
Arec<conciliate	82	0	0	9	2	1	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Fout<infrastructures	99	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	18
Ctas<operate	46	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	7
Asel<distancing	49	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	0	30

The co-occurrence of codes within each perspective is displayed in Table 5.<sup>11</sup> This illustrates the internal coherence and logic of the established paradigm (left, yellow): the focus on technological change as chief outcome of intermediation activities (Fout<) coupled with a quantitative, deterministic approach to impact assessment (Find<), much linked to the decarbonization goal (Cvis<), leads to the already mentioned focus on support activities (Cint<). These activities appear centred around the provision of energy efficiency service products (Fact<), tailored and marketed for beneficiary targets much like customer segments. Unlike customers though, beneficiaries must be proactively coached, when not constrained, reflecting a rather pyramidal approach (Aorg<). The ability to quantify the outcomes of this close coaching was described by one participant as the “spinal column” (38:268, Find</Aorg<) of the programme. This focus leads to neglect of (and even reluctance about) intervention options with strong spill-over effects, since these effects escape the control of the programme and could lead to depleting saving potentials without traceability.

In the background, the paradigm of economic competitiveness (Asoc<) underpins in particular the need to accommodate the interests of beneficiaries (Arec<), in turn leading to a focus on technological (Fout<), ideally cost-effective solutions. In practice, when addressing beneficiaries, the trend is therefore to focus on more modest goals, ultimately leading to a significant dilution of the initial savings ambitions. One participant stressed:

*[Those events] are more like cosyng up to [recipients]... It is about showing how good they are. [...] We are touching upon the surface, while we should go in depth...* (80:421, Arec</Asoc<)

Offering such support services leads to a focus on operational tasks, leaving little time to engage in-depth with beneficiaries. However, the motivation arising from involving into these operation-intensive support activities was often underlined by managers and staff members themselves for providing a clear scope of responsibility, quantifiable outcomes, and enriching personal interactions with beneficiaries. For instance, when one participant stressed:

*We are very much turned towards our partners and clients, while the paradigm change is about the entire population.* (87:657, Asel</Cvis>)

a colleague replied:

*But I precisely [...] often need to stick to something concrete.* (87:659, Find</Cint<)

In contrast to the strong interlinkage across established frame elements, the emergent perspective appears less coherent. Quantitatively, this is revealed by the more heterogeneous weight (even accounting for

<sup>11</sup> The lines/columns of this matrix were re-ordered to increase the visual proximity of co-occurrent established frame elements. A matrix diagonality measure was used as an indicator of average proximity: <https://math.stackexchange.com/questions/1392491/measure-of-how-much-diagonal-a-matrix-is>.

**Table 6**  
Co-occurrence matrix of frame elements across both perspectives.

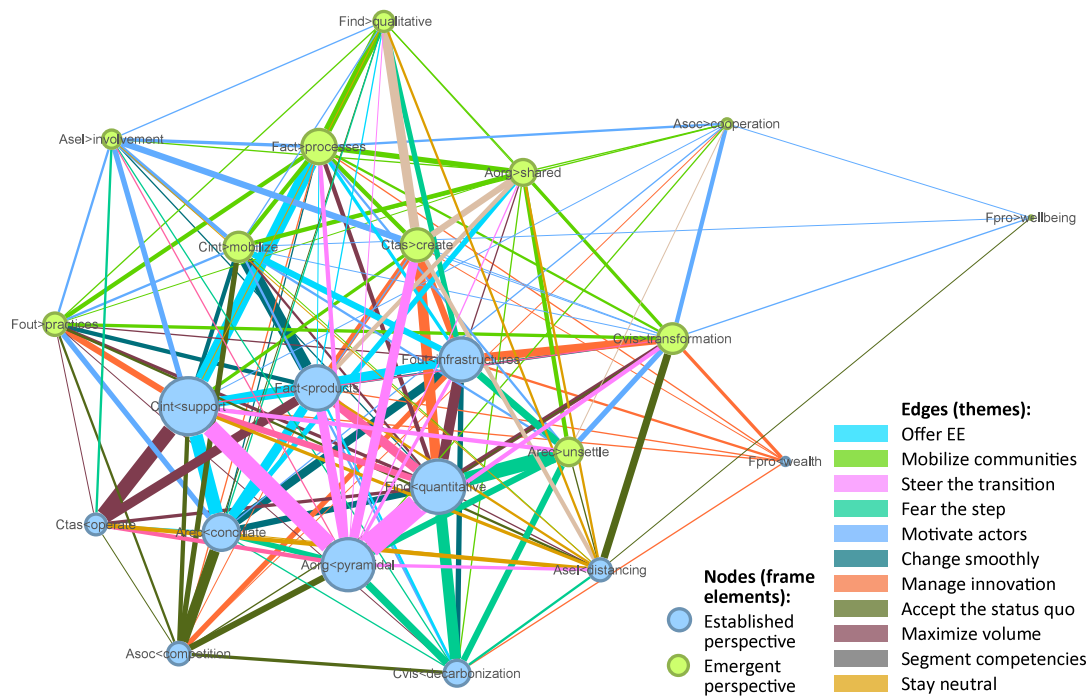
	Fpro>wellbeing	Cvis>transformation	Asoc>cooperation	Find>qualitative	Aorg>shared	Cint>mobilize	Fact>processes	Arec>unsettle	Fout>practices	Ctas>create	Asel>involvement
295	1	39	6	16	24	39	35	44	32	43	16
Fpro<wealth	7	0	0	0	0	0	2	0	0	1	0
Cvis<decarbonization	15	0	0	0	2	3	0	7	1	0	2
Asoc<competition	15	0	1	0	6	2	0	3	0	0	0
Find<quantitative	46	0	0	0	3	5	15	4	11	2	2
Aorg<pyramidal	34	0	2	1	2	0	5	7	0	10	2
Cint<support	45	0	2	1	4	5	14	5	7	0	6
Fact<products	37	0	3	0	2	5	14	1	0	5	7
Arec<conciliate	20	0	2	2	6	0	2	0	6	2	0
Fout<infrastructures	45	0	9	0	6	2	7	4	8	2	7
Ctas<operate	4	0	0	0	0	0	0	0	1	0	3
Asel<distancing	27	1	8	0	3	3	1	0	2	3	5

the relative size of each sample) of co-occurrences between emergent perspective elements (right, blue on Table 5). For instance, while the need to awaken beneficiaries (Arec>) to the challenges of a more ambitious “ecological transition” (Cvis>) based on practice changes (Fout>) is acknowledged, this remains decoupled from a parallel strand of discussion on the need for more participation (Aorg>) into open processes (Fact>) in order to enhance creativity (Ctas>). Lastly, while the need for alternative forms of evaluation (Find>) is acknowledged to unlock that creativity, how practice changes fostered by éco21 should be monitored is left unarticulated. On the contrary, such elements from the emerging perspective tend to be enmeshed with those of the established one, as described in the next section.

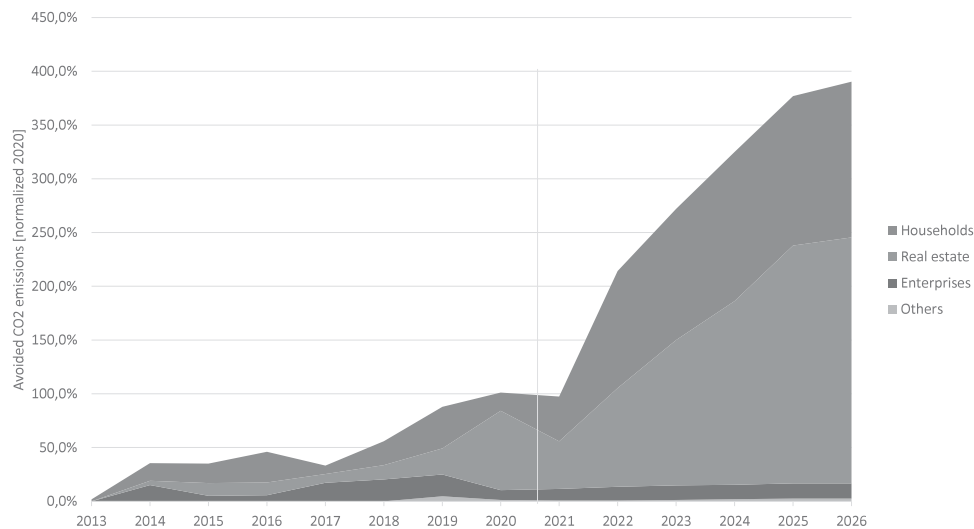
4.3. Cross-pollination of perspectives — waning of transformative ambitions

Lastly, Table 6 displays the co-occurrence of emergent frame elements with established ones. Along five of the dimensions, emergent frame elements are more often used in combination with established ones than in synergy with other elements of the same perspective. This asymmetry is also apparent in the force-directed graph of these co-occurrences presented in Fig. 6. Elements from the established perspective arrange into a central cluster around which elements of the emergent perspective are dispersed.

Most prominently, the need to mobilize stakeholders (Cint>) around participatory processes (Fact>) is understood as the involvement of suppliers into co-creation processes so that they ultimately take over the programme activities (Fact<), thus endorsing the support functions provided by the programme (Cint<). It is this peer-relayed shift in the knowledge-base and discourse on the side of installers and suppliers (Arec<) that is perceived as achievable changes in practices (Fout>). The possibility of triggering user-side practice changes is often discarded given how these are perceived as lacking knowledge and motivation – unlike suppliers to whom economic attractiveness (Asoc<) can be promoted (Cint>). Collective creativity (Ctas>) is hoped to address these objectives in that suppliers shall find the most appropriate words to convey the vision of the programme to their likes (Arec<), but this should still remain a process closely monitored by éco21 (Find<, Aorg<) as the “director” of the “ecological transition” (Cvis>).



**Fig. 6.** Network representation of the code co-occurrence counts provided in Tables 5 and 6. This figure is produced by entering these tables as an adjacency matrix in Gephi (v0.10) to produce a weighted network visualization and by using the ForceAtlas2 algorithm to bring the nodes (frame elements) closer according to the weight of the edges (co-occurrence counts). This visualization underlines the centrality of established (blue) elements forming a cluster to which the emergent (yellow) elements are mostly linked (rather than forming a second cluster). Edge colours refer to the themes identified during the final re-coding i.e., the guiding principles for the programme, as explained in Section 3.2. They are detailed in appendix C.



**Fig. 7.** Evolution of achieved (up to 2020) and targeted (from 2021) CO<sub>2</sub> emission savings for different target stakeholder segments in éco21’s “new policy scenario”. Each segment is addressed by several subprogrammes, the objectives of which are multiplied by up to 13. Similar patterns were anticipated for electricity given the foreseen electrification of the energy system, but this was given less explicit focus at political level. These objectives were presented (as a table) by one participant during the 23.06.2021 manager workshop to trigger discussion on the disconnect between achieved savings and objectives.

Moreover, the understanding of the transition as the massive deployment of technological solutions (Fout<) (ultimately providing new economic opportunities (Fpro<)) leads to the conceptualization of quantitative objectives as a “wall” (40:206) (Find<), illustrated by the comparison between past achievements and future goals presented in one occasion by a manager and shown in Fig. 7. This wall appears rather disempowering for staff members (Asel<), who are tempted to transfer it further by “defining emission reduction goals at the level of users and suppliers” (87:680, Aorg</Cvis<). The underlying assumption is that “once people have understood [the issue], it is done” (80:394,

Cint</Cvis>). Thus, while it is generally acknowledged that beneficiaries should be awakened to the magnitude of the challenge (Arec>), fostering such an understanding is often perceived as a matter of calculating quantitative goals (Find<, Aorg<) and helping them achieve those (Cint<). The lack of motivation and capacity of actors to actually endeavour into transition initiatives, even in the face of such quantitative goals, then appears as a further difficulty. As highlighted by one participant:

*I think some people [within beneficiary organizations] under-evaluate the emergency. When we give them the [policy] objectives, they say that*

*it is completely exaggerated, that if we manage half of it everyone will be happy.* (80:318, Cvis</Asoc<)

While expressed as a barrier, this perceived lack of motivation is also foundational for the programme, in that it warrants additionality: assuming that stakeholders would be willing to involve into change would make the activity of the intermediary appear pointless compared to the mere offering of commercial solutions. Staff members thus feel powerless in triggering any transformation:

*It is the entire business model of [the recipients] that needs rethinking. That is in the realm of the magical wand... It is not up to us to rethink that business model.* (84:370, Ase</Arec>)

Ultimately, for some, technological solutions thus come back to save the day:

*I think that, in the future [beyond 2030], we will have a new sort of energy, that does not exist today. One in particular [...] is the CO2 retrieval [...] that could be an energy source for tomorrow. [...] Humans are capable of many things.* (77:406, Fout</Cvis>)

This brings back the focus on more training and support activities for the deployment of such solutions — including the planning and execution of compliance interventions in a tightening regulatory framework. Such activities amount to taking over the burden of the transition, seen essentially as a technical challenge, through elaborated coaching schemes relying on increasingly strict management approaches (quantitative objectives, bonus/penalty systems etc.). These require overwhelming operational work in order to intervene in all buildings and organizations, leaving little room for exploring alternative options. For recipients, they lead to framing environmental issues as systemic inefficiencies that can only be handled through the procurement of energy efficiency solutions, further exacerbating the lack of motivation and the need for support. The established perspective thus appears to have a self-reinforcing character, preventing the structuring of emerging ones.

## 5. Discussion

This research sought to introduce a new methodology for the description of internal meaning structures of organizations. It applied this to the case study of a utility department running an energy efficiency programme, taken as a critical case of regime-based transition intermediaries active in the energy field. This allowed to elicit relevant framing dimensions and perspectives, along with their prevalence in the case at hand. Section 5.1 now discusses the value of the derived conceptual framework, validating identified framing dimensions in light of agency theories. Section 5.2 links the identified established perspective to long studied shortcomings of current approaches to energy transitions. Section 5.3 then seeks to draw practical implications by exploring how identified frame elements could be articulated differently to open up new directions of change. Section 5.4 lastly discusses the limitations of this work and further research directions.

### 5.1. Theoretical contributions — unpacking intermediary agency

Section 4.1 identifies eleven intermediary agency dimensions as a basis for the description of relevant shared agency frames. The resulting typology is open to scrutiny, which is an advantage of the adopted approach over less structured discursive analysis (e.g., narrative accounts). A first concern with such a typology is the mutual exclusiveness and collective exhaustiveness of identified categories (Kanger, 2024). These criteria are assessed here by making the links with established theoretical constructs, namely the agency theories introduced in Section 2.1.

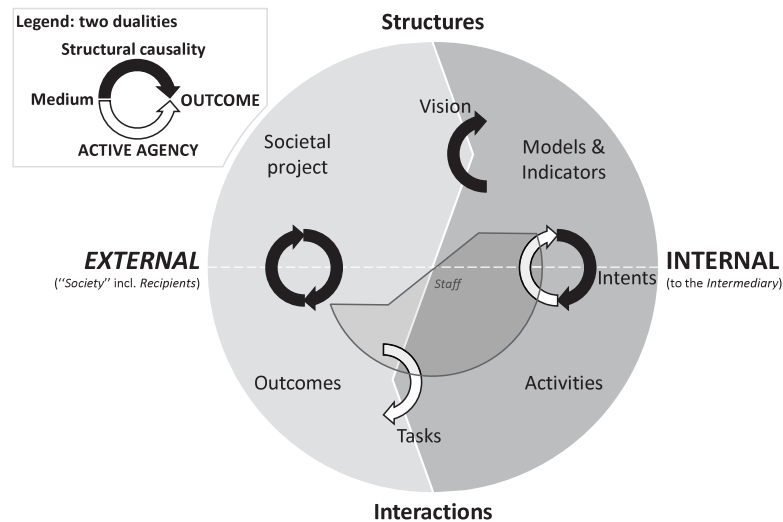
The four field dimensions and the three content dimensions displayed in Fig. 4 can be rearranged within the terms of strong structuration theory, as illustrated in Fig. 8. In this representation, these dimensions appear as constitutive of internal and external structures, with content dimensions translating between field dimensions (e.g., the formalization of a vision for the intermediary, based on societal goals, influences the definition of relevant impact models and associated indicators). While this interpretation confirms the mutual exclusiveness of these seven dimensions, it could be argued that it outlines the absence of one element translating between outcomes and the societal project on the side of external structures. This corresponds to what has been conceptualized as impacts or “ultimate effects” in evaluation research (Weiss, 1997). However, for the discursive analysis conducted here, statements of desired impacts appear assimilable to statement of intents, making this a redundant dimension.

Actor dimensions do not fit well into this representation, outlining, to some extent, their redundancy. However, field theories as that of Lewin (1997 [1951]) explicitly conceptualize a distinction between actors and fields (see also Kump, 2023), while the former are in focus in principal-agent theory (Talmar et al., 2022). The identification of the four actor dimensions proposed in this paper further appeared meaningful in light of the inductively identified framing dimensions, as they allowed to conceptually distinguish the vertical vs. horizontal, and positivist vs. constructivist perspectives. This led to a categorization of actors along the same levels as Talmar et al. (2022), still echoing the four aspects of strong structuration. Society and recipients appear as external entities (at the level of structure and outcomes, respectively), while staff members are vectors of the agency of the intermediary (nested shape in Fig. 8). Note that the resulting distinction between actor, content, and field dimensions connects to typologies used in discursive analysis, e.g. the three dimensions of storyline formation within innovation debates consolidated by Rosenbloom et al. (2016) (who use the word “context” rather than “field”).

These theoretical linkages confirm the mutual exclusiveness and collective exhaustiveness of the identified dimensions in terms of describing how intermediaries frame their own action. The relevance of the resulting framework in terms of studying agency *per se* remains to be assessed, whereby simplified or parcelled versions might be preferred. More importantly, given the discursive approach adopted in this paper, it should be noted that reliance on agency theories does not preclude the potential relevance of other dimensions altogether. For instance, perceptions of time and space (Pearse, 2021) were not taken into account; the scope of the programme (the “ecological transition” encompassing energy, water, and waste) was taken as granted, overseeing non-sustainable transition processes that might be countering its action (Shove and Walker, 2007; Hebinck et al., 2022); more fundamentally, ethical and justice dimensions were left aside (Buzogány and Scherhauser, 2022; Newell et al., 2022). While in principle relevant, these later dimensions are almost absent from the research material, warranting attention to whether and why such considerations are left aside by transition intermediaries in the energy field. This echoes criticisms of energy efficiency centred approaches which are elaborated upon in the next section.

### 5.2. Empirical findings — discursive barriers to sustainability agency

The prevalence of elements from the established perspective described in Sections 4.1 and 4.2 is not a new finding. Considering only energy transition studies, the focus on technological solutions (Fout<) has been increasingly criticized in past years, with the importance of practice changes being put forward (Lutzenhiser, 2014; Geels et al., 2018). This criticism links to how predominantly positivist approaches (Find<) may be overlooking second-order, complex dynamics (e.g., rebound effects) ultimately compromising the viability of envisioned futures (Sorrell, 2015; Giampietro and Bukkens, 2022). Moreover, the “fit-and-conform” strategies (Arec<) deriving from these



**Fig. 8.** Representation of identified intermediary agency dimensions (see Fig. 4) within the strong structuration cycle following Stones (2005). The four aspects of strong structuration theory are in CAPITAL letters and further concepts of structuration theory in bold. This representation conveys the conceptualization of outcomes and active agency as poles of a medium/outcome duality of structure (arrows) within which each moment has a “duality of structure and agency” (Stones, 2005, p.5). The vertical axis further conveys the distinction between the structure (top) as “out of time and space” (Giddens, 1989 [1986], p. 25) and its instantiations namely through interactions (bottom).

approaches (i.e., adapt content to context in order to enhance the “fit” of the heralded solutions or products) has been decried for dampening the ambition of conveyed messages (Smith and Kern, 2009; Raven et al., 2016). This is all the more true as current approaches are often biased by power and information asymmetries (Aint<) that hinder decentralized action (Stirling, 2014; Maiorano, 2018; Dunlop, 2019) while facilitating responsibility dilution (Langlois-Bertrand et al., 2015; Haderer, 2023). More fundamentally, the lack of questioning of the interdependence between EE and the mainstream growth paradigm (Fpro<) has long been criticized (Meadows et al., 1972; Shove, 2018).

The intermediary agency frame structure used in this work allows to integrate these limitations within a single conceptual framework. The representation of the shared agency frames underpinning intermediary actions (Fig. 6) highlights how these elements interact, making it complicated to handle them separately. As detailed in Section 4.3, the association of emerging approaches to established ones leads to trade-offs that weaken change ambitions. Such phenomena have been observed in corporations (Wright and Nyberg, 2017) as well as in the energy field, where the call for more consideration for user-side measures is often answered with simplistic “ABC” accounts of social change (Shove, 2010). Guibentif and Patel (2023) in turn had already explained the focus of éco21 on operating support activities in terms of a “quantification” and a “competency” attractors, making the shift to a more strategic, mobilization-oriented position appear as “quantum leap” for workshop participants. However, unlike previous analysis, this paper interprets these adjustments as internal fall-backs on familiar framing perspectives across diverse dimensions, rather than as an alignment with external worldviews under the pressure of (fear of) criticism.

These results underline the need to explore the framing of internal processes and intervention options by transition intermediaries, while offering a framework for such an exploration. While the focus of discursive analysis has been on problem definition struggles at societal level (Isoaho and Karhunmaa, 2019; Teerikangas et al., 2022a), the proposed framework operationalizes concepts of agency for analysis at organizational and individual level.

### 5.3. Practical implications — balancing short-term motivation and long-term effectiveness

The framework and observations presented in this paper could be leveraged by transition intermediaries to reflexively assess and improve

their activities. On the side of staff members, while quantifiable outcomes are seen as essential for keeping track of one’s achievements, the amount of achieved savings compared to the height of the “wall” (see Fig. 7) is sometimes discouraging, especially given the “emotionology” surrounding climate change” (Wright and Nyberg, 2012). On the side of recipients, the self-perpetuation of the focus on technological solutions, as a product-like, marketable solution for unmotivated recipients, in practice translates into further focus on more support in order to maintain output.

A coherent emergent perspective, as sketched in Section 4.1, would instead focus on conveying a sense of the urgency of deep changes to address multiple planetary overshoots, providing extensive lists of practice change prescriptions and facilitating deliberation and networking processes. Such an approach arguably also risks facing setbacks. Purposefully changing societal practices and associated meanings requires the joint involvement of many actors, so that the potential impact of any single initiative might appear as disappointing and hard to apprehend (Merton, 1936; Sorrell, 2015). Even where these initiatives would aggregate to significant amounts, gathering large groups of actors and aligning their actions over long periods of time is a challenge likely to appear out of reach to most individuals. Such collaborative processes risk slowing down progress, so that a trade-off needs to be found between participation and speed of transition (Newell et al., 2022). Conveying the urgency of change while providing ground for rapid meaningful action to both staff members and recipients thus appears as a key challenge.

A composite alternative should ideally strike a balance between providing an intuitive, short-term rationale for action to both staff members and beneficiaries while fostering consideration for long-term effectiveness. It could keep a focus on concrete actions while enhancing awareness to the corresponding contributions to wider dynamics, similar to a “think global, act local” approach (Stephen, 2007). The frame structure presented in this paper could help disentangle different levels of action, decide on which level to engage with which actors, and monitor shifts. For instance, it could be used to strategically bring together leading actors and less proactive ones, underlining consensual dimensions to foster change on the others. Where conflicting concerns are voiced, the framework also provides a basis for exposing their underlying assumptions in a way amenable to negotiation (Roe, 1994).

In the case at hand, the strongest emerging frames could be leveraged by promoting a holistic narrative of change when addressing recipients (Cvis>, Arec>), using participation processes (Fact>, Aorg>)

as a tool to enhance adhesion (Cint>) and creativity (Cint>). This is a similar logic as that put forward in transition management approaches (Loorbach, 2010; Sandin et al., 2019). The salient established frames allow to anticipate the main obstacles to such an approach. For instance, the weight put on technical options (Fout<) needs to be addressed, for example by framing energy efficiency measures as a first small step towards more far-reaching changes. Further, while direct impact indicators (namely energy saving estimations) are widely available and used to assess progress (Find<), indirect impact and process evaluations are lacking. New evaluation approaches are thus needed, such as theory-based approaches (Fulbright-Anderson et al., 1998; Haddad and Bergeke, 2023), not only allow to support decision-making, but also make emerge a more comprehensive understanding of the role of the programme.

The self-reinforcing prominence of support activities (Cint<, Fact<) and top-down approaches (Aorg<) should also be addressed. This implies resisting any commitment to supply unlimited technical advice. Instead, the self-confidence of recipients in their capacity to change could be nurtured (implying that their capacity to do so must be trusted). Given that actors cannot be generally expected to have expertise in energy efficient options, promoted solutions need to be more accessible, e.g. questioning practices and everyday choices. While historical trends suggest that such solutions face a strong inertia, recent societal responses to punctual crises (COVID-19 pandemic, war in Ukraine) indicate that they could be embraced if they are introduced as transitory measures, bound to resorb as technological progress advances. Rather than the seemingly impossible task of technically decreasing environmental impact without affecting social practices, the transition could thus be framed as a trajectory towards improved standards of living in a context where a viable environmental footprint would have been secured. Such a framing would to some extent espouse the currently strongly established perspective on the societal project (Fpro<). In other words, existing and future technological solutions could be framed as a way to compensate, within decades, for short-term changes in practices needed to achieve the required magnitude and pace of savings.

#### 5.4. Limitations and future work

Our analysis focussed on the description of internal structures of transition intermediaries. The next step of the analysis following Stones' (2005) approach would be the study of the structures external to éco21. Socially prevalent meaning structures were implicitly treated in that they influence the frames observed within the éco21. As early formulations of structuration theories suggest, further relevant structure types would be those of domination and of legitimation (Giddens, 1989 [1986]). Further research should also explore how intermediaries enact and rely on these structures in their action, namely to establish the links between prevalent meaning structures, intermediation activities, and the outcomes of these activities.

Moreover, the present analysis focussed on the shared frames at the level of the organization. An analysis of individual profiles and dynamics emerging from interpersonal/group interactions (Upham et al., 2022) was not performed, partly due to the need to preserve participant anonymity. Only Fig. 5 suggests some differences between staff and manager perceptions that would be worth exploring. Such an analysis could draw on the approach presented in this paper to semi-quantitatively assess differences in individual world-views, assumptions and contradictions, and correlate them to specific actions or utterances. For instance, a study of the frames underlying verbatim use of given words (such as "sustainability" or "sufficiency") would allow to elicit the changing significations of these words and associated impact.

Methodologically, the nature and directionality of relationships between co-occurring codes was not systematically characterized, mostly due to technical constraints. Moreover, the corpus was here limited to workshop transcripts, allowing to take quotes as a proxy for participant

thoughts and abstract from rhetorical considerations on the role and intention of speakers. However, longitudinal analysis of these and other document types would likely yield further interesting results, for instance regarding the translation of frames in thought into frames in communication. The inclusion of several coders would then be important to allow discussion on the interpretation of statements. Finally, the construction of frame elements around dichotomies is an analytically convenient simplification that might miss alternative viewpoints and creates a risk of crystallizing polarizations. The inclusion of further perspectives is therefore not to be excluded.

## 6. Conclusion

This research applies a novel discursive approach to the in-depth case study of éco21, a Swiss regional utility department running an energy efficiency programme, in order to understand how internal meaning structures condition the agency of regime-based transition intermediaries (i.e., incumbent actors seeking to advance sustainability transitions by supporting the change efforts of other actors e.g. through networking and learning processes). It sets out by conceptualizing internal meaning structures as a combination of *shared agency frames* resulting from different perspectives on various framing dimensions.

Analysing a series of workshops within éco21 and taking a lead from existing agency theories, eleven framing dimensions are identified. Two contrasting perspectives are elicited on each of these dimensions. The resulting coding system is used to semi-quantitatively describe the internal meaning structures of éco21. This reveals an established perspective focussed on saving energy through the support to the implementation of energy efficient technologies, in line with the original mandate of the programme and the increasingly prescriptive regulatory environment (what we termed the *spare* perspective). This leads to heavy operational load, in order to respond to increasing objectives set at the policy level.

In response to these difficulties, elements from an emerging perspective have started to gain traction. In particular, recognizing the need to *transform* energy consumption patterns, the programme is strategically repositioning itself as a facilitator of co-creation and experience sharing processes, while the need for more unsettling discourses is underlined. These emerging frame elements however hardly form a coherent alternative to the established perspective, instead being linked to the enduring mission as a supplier of energy efficiency solutions. For instance, while the importance of fostering practice changes is acknowledged, these are often understood as a reconfiguration of value chains in order to accelerate the diffusion of given technological solutions. Conversely, the possibility and potential of fostering changes in user practices, beyond mere regulatory enforcement, remains to be explored.

In a context where the need to transition is recognized by a majority, how to arrange these different frame elements in order to make truly new transition pathways more tangible becomes an increasingly urgent stake. This paper makes the case for a consideration of the complementarity of both the *spare* and *transform* perspectives, whereby pragmatic deployment of training, coaching, and subsidizing activities would not displace engaging into more ambitious, paradigm-shifting collective processes of change. Current activities, often seen as the provision of turnkey energy efficiency products, could instead be designed and framed as a tool to feed and showcase more holistic change efforts by all actors. This however implies that societal changes should to some extent precede, and not follow, technology diffusion.

## CRediT authorship contribution statement

**Thomas M.M. Guibentif:** Writing – original draft, Writing – review & editing, Visualization, Validation, Software, Methodology, Investigation, Formal analysis, Data curation, Conceptualization. **Martin K. Patel:** Writing – review & editing, Supervision, Resources, Project administration, Funding acquisition.

## Declaration of competing interest

The authors declare the following financial interests/personal relationships which may be considered as potential competing interests: The funding and field of this research were provided by the public utility *Services Industriels de Genève*, in the context of its support to the Chair for Energy Efficiency at University of Geneva and under a specific agreement according to which 40% of the position of the first author (TG) was paid by the utility for consultancy work. These agreements guarantee the academic liberty of the chair, the priority of research over any operational activities of the first author as well as the property rights of the authors over any research produced during the research time. It was explicitly requested that the studied programme be named. Due to the participatory nature of the research, results were discussed with project managers as research participants. The final writing is however the sole responsibility of the authors.

## Data availability

Data will be made available on request.

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## Appendix A. Supplementary data

Supplementary material related to this article can be found online at <https://doi.org/10.1016/j.jclepro.2024.143076>.

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