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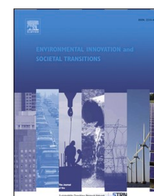

Research article

Biting the bullet: Addressing the democratic legitimacy of transition management

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A B S T R A C T

From early on, reflexive governance approaches have been problematised for lacking explicit consideration of formal governance and decision-making structures. Developed over two decades ago, transition management is not an exception; it has been specifically critiqued for being democratically illegitimate and depoliticising issues. Contributing to these debates, this article develops a legitimacy framework for understanding how transition management practices can be legitimised within liberal democratic structures, while safeguarding their transformative potential, or, 'radical core', while navigating innovation capture. This framework guides a comparative analysis of six European cities, who employ transition management practices for developing decarbonisation roadmaps towards 2050. We discuss the emphasis on liberal democratic norms, the fuzziness of practices of participation and the closing down of policy options. We recommend the legitimacy framework to be used as a heuristic for reflexive governance, tool for explicating the conditionality of 'radicality' in transition management, and guide for designing accountability governance structures.

1. Introduction

Over the past decades, reflexive governance approaches such as adaptive governance and transition management have aimed at accelerating sustainability transitions, in response to democratic institutions proving unable to provide direction and initiative for structural societal change (Foxon et al., 2009; Kemp and Loorbach, 2004; Loorbach, 2010; Rotmans, 2001; Voß and Bornemann, 2011). Today, while general directions for sustainability transitions have arguably emerged (e.g. decarbonisation targets), *how* exactly these changes will be realised is rife with uncertainty, value tensions, and collisions of interests. Researchers have argued that in some contexts, transition dynamics are changing from requiring a sense of direction and mobilising change agents, towards policymakers looking for ways to implement institutional changes in later phases of transition (Köhler et al., 2019; Loorbach et al., 2017; Turnheim et al., 2020). The connection between reflexive governance practices and formal governance and decision-making structures are often overlooked, and connecting informal and formal arenas is considered a priority for research and practice (European Environment Agency, 2017; Isaksson and Hagbert, 2020).

However, as reflexive governance practices become more closely intertwined with institutional change, they are likely to interfere more directly with altering the design of existing institutions, spending public budgets, and pushing legally binding policy decisions, which raises the urgency of questions about their democratic legitimacy. Indeed, from early on, reflexive governance approaches have

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been problematised for their lack of consideration of possible interference with existing policy, institutions, or even constitutions (Voß and Bornemann, 2011). This paper contributes to these debates by developing and applying a legitimacy framework for understanding how transition management practices (as a reflexive governance approach) can be legitimised within liberal democratic structures, while safeguarding their innovative potential.

Transition management is a collection of activities aimed at fostering alternative ways of doing, thinking and organising functionally and/or geographically bound systems linked to long-term visions of just and sustainable societies. It is designed according to tenets rooted in complexity governance (Loorbach, 2010). Developed over two decades ago, by design, it positions itself outside conventional institutional structures to set higher climate ambitions, involve change agents, explore innovations and collaborations, and encourage power sharing (Idem). Over the years, the approach has been critiqued amongst others for uncritically involving elite actors (e.g. Hendriks, 2009), as well as depoliticising social issues and not incorporating dissent or conflict (e.g. Debruyne and Bisschop, 2013). In this article, we identify two types of responses to these critiques. Firstly, adaptations of the approach to better account for transparency, power, and types of participation. Secondly, a refusal of the original critiques, as these would stem from a *regime* notion of 'established' institutional democracy, while these very norms are questioned by transition management.

In this paper, we argue that both these responses are only part of the answer. We propose to understand transition management as a niche practice aiming to challenge, alter, or replace institutions, and to understand its mainstreaming drawing on notions of 'capture' or 'translation' (Pel, 2016; Smith, 2007). Namely, there is a need for its practices to be legitimised within the very liberal democratic norms and structures that they aim to challenge, while not losing their 'radical core', or 'innovative potential'. This becomes particularly relevant against the background that reflexive governance approaches get more intertwined with formal decision making in later phases of transition.

To address this tension of capture, we draw on and adjust a framework for understanding the legitimacy of governance practices developed by Bekkers and Edwards (2007). The adapted framework can be used as a heuristic for policy workers to democratically legitimise transition management practices. We apply this framework to six case studies of European cities developing a roadmap for a climate neutral 2050.

This paper is structured as follows. In Section 2 we explore the emergence of transition management and its associated critiques. After having discussed the responses to these critiques, we present a framework for addressing legitimacy concerns. In Section 3 we present the methodology of this paper and our case studies. Section 4 outlines the results of our comparative analysis. In Section 5, we discuss the findings and resulting recommendations, before presenting our conclusions in Section 6.

2. Legitimacy in transition management

In this section, we review the ways in which the legitimacy of transition management has been contested over the past decades and distinguish two main responses to these critiques. We position transition management as navigating a process of innovation capture, and propose a legitimacy framework to help understand how legitimation of transition management practices takes place as transition dynamics develop and the institutionalisation of alternatives takes centre stage.

2.1. The contested legitimacy of transition management

Transition management was initially developed in the early 2000s at the policy-science interface, in the wake of the fourth National Environmental Policy Plan of the Netherlands (NMP4) (Kemp and Rotmans, 2009). It was rooted in the idea that to address persistent societal problems, long-term fundamental structural changes are needed: sustainability transitions (Grin et al., 2011, 2010). Transition management builds on insights from complex systems theory, such as variation, selection and emergence (Rotmans and Loorbach, 2009), and sociological theories, such as the notion of structuration and how actors and structures interact and shape each other (Giddens, 1984), to formulate governance tenets (Grin et al., 2010; Loorbach, 2010). One of the key tenets is that sustainability transitions can be influenced, supported and accelerated by playing into existing dynamics, and embracing complexity and uncertainties. To achieve this, "*agents at a certain distance from the regime*" (Loorbach, 2010, p. 168), also known as change agents or front runners, play a central role in practices of collectively searching and experimenting, forging multi-actor collaborations, and creating spaces for learning (Wittmayer and Loorbach, 2016).

Transition management incorporates four distinct types of governance activities: (1) strategic and long-term, which includes setting goals; (2) tactical, focusing on the medium term, e.g. targeted changes in existing institutions; (3) operational, focusing on short term action and experimentation; and (4) reflexive, which concerns continuous learning about the system and possible futures (Loorbach, 2010). For each level, specific practices have been created, including transition arenas and scenarios (Sondeijker, 2009; Van Buuren and Loorbach, 2009), transition agendas, transition experiments (Sengers et al., 2019; Van den Bosch, 2010) and transition monitoring (Taanman, 2014; Taanman et al., 2012)

Since its inception, transition management has been applied to a variety of domains, governance levels and geographical contexts (Frantzeskaki et al., 2018b; Wittmayer and Loorbach, 2016). For the urban context, Roorda et al. (2014) created a practical manual in which the three main objectives of transition management are formulated as "*(1) A sense of direction; (2) An impulse for local change (*i.e. *enhancing new and existing initiatives); and (3) Collective empowerment*" (p. 12). The approach has been adapted, transformed and challenged not only by operationalising it, but also through theoretical contributions, such as grounding it into different literatures (for a systematic overview see Frantzeskaki et al., 2018a). Transition management, in particular its early implementation by the Dutch Ministry of Economic Affairs in the context of energy transition policies, has received firm critiques on aspects such as power, politics and agency (Avelino and Rotmans, 2009; Hendriks, 2009; Jhagroe and Loorbach, 2015; Kern, 2012; Kern and Howlett, 2009; Kern and

Smith, 2008; Meadowcroft, 2009; Shove and Walker, 2007; Smith et al., 2005; Smith and Kern, 2009; Smith and Stirling, 2010; Voß, 2014). Following our research interest, we focus on those critiques that take liberal democratic values as a starting point: (1) Transition management practices as reproducing undemocratic storylines; (2) Transition management practices as de-politicising governance practices.

The first critique extends that transition management in practice reproduces dominant policy styles and network structures by attributing a central role to an elite group of actors (Hendriks, 2009, 2008). In her analysis of the democratic storylines in the NMP4 transition management process, Hendriks (2009) found that participants juxtaposed the merits of "*innovation, knowledge, autonomy and leadership*" with existing "*myopic and interest-based*" democratic institutional procedures (p. 350-351), and that energy futures were considered too complex for non-experts to engage with. Such underlying assumptions about who should be re-imagining, designing and experimenting with new energy systems ought to be made transparent, questioned and discussed. Besides, positioning transition management vis-à-vis existing democratic standards is not just needed in terms of democratic legitimation, but also, more pragmatically, for securing funding and initiating formalisation of outcomes (Hendriks, 2009).

A second strand of critiques frames transition management as a post-political practice: concepts such as 'the common good', 'the public', 'participation', or 'sustainability' would not be critically reflected on, nor would fundamental ideological conflicts and power struggles be acknowledged (Chilvers et al., 2018; Debruyne and Bisschop, 2013; Kenis et al., 2016; Meadowcroft, 2009; Paredis, 2014). The assertion that neutral, scientific facts, facilitated by a 'neutral' arbiter, could lead to a shared problem definition would negate and obscure fundamental dissensus and ideological clashes concerning class, ethnicity or values (Debruyne and Bisschop, 2013; Hendriks, 2009; Shove and Walker, 2007; Swyngedouw, 2007). Such depoliticisation would make transition management processes vulnerable to co-option by regime actors who can hijack the agenda to promote their own interests and exert disproportional influence (Debruyne and Bisschop, 2013).

In response, these critiques have been addressed from two distinct frames. Firstly, to address conceptual critiques such as those mentioned above, transition management ideas and practices have gone through many adaptations and contextualisation over the past decade (Frantzeskaki et al., 2018b; Loorbach et al., 2016). These contributions have addressed the critique regarding its alleged elitist character, and transparency about selection (Hölscher et al., 2019b; Wittmayer et al., 2014), unpacked contested terms such as sustainability (Schäpke et al., 2017; Wittmayer et al., 2014) and issues of power (Avelino, 2011, 2009; Avelino et al., 2016; Hölscher et al., 2019b; Schäpke et al., 2017), and suggested to further strengthen the participatory nature of transition management (Frantzeskaki et al., 2018b).

A second response, however, has fundamentally refuted the basis on which the critiques were made. Jhagroe and Loorbach (2015) argue that transition management serves as a mirror to identify how institutionalised forms of democracy (e.g. representative, participatory, or deliberative democracy) are wanting in terms of their democratic quality. Noting that institutionalised democracy is selective and exclusive by nature to be productive, they state that "*to institutionalise democracy is to create an oxymoron*" (Jhagroe and Loorbach, 2015, p. 71). From a post-foundational democratic perspective, the extra-institutional and exclusionary character of transition management creates a democratic space for policy innovation by opening up to otherwise excluded politics and frames. Transition management is a space that allows new social relations, time-horizons and problems to arise, and for otherwise marginalised voices, values and conflicts to exist (Jhagroe, 2016; Jhagroe and Loorbach, 2015; Loorbach et al., 2013). The question of legitimacy is settled by arguing that the results produced by transition management practices do not have a formal status and are 'checked' by an elected institution (e.g. city council).

2.2. *Reframing transition management: navigating capture*

We argue that both responses to the critiques need to be combined to adequately address the legitimacy of transition management practices. When transition management was first conceived, societal problems such as climate change were not high on the political and public agenda, and objectives were directed at providing a narrative and direction, collective empowerment and direct local action (Roorda et al., 2014), while today, transition thinking can be seen to be mainstreaming (Turnheim et al., 2020). Questions regarding institutional change, the role of incumbents, mainstreaming of renewable energy production and energy efficiency practices, as well as the phase out of fossil-fuel based structures are gaining in importance in practice and research of transitions (European Environment Agency, 2017; Köhler et al., 2019; Loorbach, 2014a; Markard, 2018; Mühlemeier, 2019; Turnheim and Geels, 2019). This means that transition management can no longer 'afford' to be extra-institutional as suggested by Jhagroe and Loorbach (2015). While transition management has developed as an intra-institutional process in practice,[1] it appears that academic work has not yet caught up with it. Notable exceptions are those who have pointed towards the need for addressing resulting tensions, e.g. in terms of relations to formal governance, hierarchies, agendas, capacities and democratic legitimacy (Frantzeskaki et al., 2018b; Hölscher et al., 2019a; Isaksson and Hagbert, 2020; Nagorny-Koring and Nochta, 2018).

Even if 'conventional' checks (i.e. elected city councils) ratify outcomes of transition management practices, as was argued by Jhagroe and Loorbach (2015), democratic legitimacy issues remain relevant. Namely, transition management practices have privileged access to influencing policy: how and by whom it is shaped matters. For instance, policymakers may actively lobby with politicians to support the outcomes. Besides, not all outcomes and implications will be officially ratified by the local council (e.g. affecting actions by actors external to city hall or initiating new committees). Therefore, the assertion that by deciding whether to ratify the

[1] Practical work on this has been ongoing at DRIFT, for instance Hydrogen for the Port of Rotterdam in an International Context – a Plea for Leadership (2020), Staat van Transitie in mobiliteit, klimaatadaptatie en circulaire economie (2019) or Afvalprikkels (2019).

outcomes, a city council settles issues of legitimacy, as made by Jhagroe and Loorbach (2015), is unsatisfactory and needs to be opened up.

We open up legitimacy by referring to the notions of 'translation', or 'capture' of niche innovations (Pel, 2016; Smith, 2007). How transitions initiatives are absorbed in existing cultures, structures and practices is a testament to their success. This can happen through market uptake for technological innovation, or through becoming part of societal discourses, an established practice or 'the' norm for more social innovations (Wittmayer et al., 2020a). It is thus considered desirable for innovation niches to be 'captured' by the dominant regime in order to mainstream, a process in which elements of the niche are taken up and made fit within existing structures, as this uptake can lead to altering or changing these structures (Pel, 2016; Pel et al., 2020a). In the following, we use the shorthand 'radical core' to refer to the transformative ambition of transition management practices. We frame the practices as innovation niches in the institutionalised liberal democratic structures in cities (i.e. 'the regime'). As such, the process needs to be legitimated within the institutional reality of liberal democracy, while aiming to safeguard a context-dependent 'radical core' to affect transformative impact, which is further addressed in Section 4.1.

2.3. Bridging realities: legitimacy in transitions

Having established the need for understanding the legitimacy of transition management practices in terms of the radical core it pursues and how this is captured or translated, we now turn to construct a legitimacy framework, which can be used as a heuristic to evaluate this process. We build on a framework developed by Bekkers and Edwards (2007), which takes input, throughput and output legitimacy as a starting point for assessing governance practices. In addition to the liberal democratic norms suggested, we formulate normative dimensions of 'transition legitimacy' as presented in Table 1. Based on the respective system needs, dimensions of the framework have been prioritised and interpreted by the cities in the formulation of their radical cores.

2.3.1. Taking liberal democratic norms as starting point

Legitimacy is a normative quality which can describe whether an action in society is "*recognised as lawful, just or rightful*", which depends on political, social, cultural and historically contingent preferences (Morris 1998 in Bekkers and Edwards, 2007, p. 48). Scott (2001) defines it more elaborately as "*a condition reflecting perceived consonance with relevant rules and laws, normative support, or alignment with cultural-cognitive frameworks*" (Scott, 2001 in Verhees, 2012, p. 8). With regards to policy decisions or governance, legitimacy provides the "*moral basis of political authority*" (Birch, 1993 in Hendriks, 2009, p. 344). These definitions indicate that legitimacy is closely related to concepts of justice. In this paper, we take liberal democracy to be the frame of justice for a given constituency, i.e. that legitimacy needs to be accounted for in relation to citizens in a designated political system according to liberal democratic standards, such as in a municipality. Bekkers and Edwards (2007) build on Scharpf (1998) to develop a normative framework to evaluate democratic quality, i.e. legitimacy of decisions taken, or governance practices. They extract these dimensions from collectivist and liberal democratic traditions, in which popular representation and the protection of individual rights and liberties are central values. By using the distinction of input, throughput, and output legitimacy, they define norms around government *by* the people (input), the quality of procedures (throughput) and government *for* the people (output) (see Table 1). This distinction is commonly used to assess the democratic legitimacy of governance practices, as for instance by Schmidt (2013) who uses them to define legitimacy more operationally, as "*the extent to which input politics, throughput processes and output policies are acceptable to, and accepted by, the citizenry, such that citizens believe that these are morally authoritative and they therefore voluntarily comply with government acts even when these go against their own interests and desires*" (p. 9-10). Using this definition, performing well on input, throughput and output is instrumental for transition management for being accepted by the citizenry.

Different models of democracy (e.g. representative, direct, deliberative, pluralist, associative and participatory democracy) exist in parallel, and have different strengths and weaknesses in relation to the suggested norms. Meanwhile, representative democracy provides the "*constitutional rules of the game on the basis of which the various (other) democratic arrangements can function*" (Bekkers and Edwards, 2007, p. 75). In a polycentric reality, different modes of governance (e.g. network, multilevel, market, or reflexive governance) operationalise different democratic norms (i.e. elements of input, output or throughput legitimacy). By understanding which norms are appealed to, strengths and weaknesses of governance models may be better understood and addressed.

2.3.2. Accounting for normative dimensions of 'transition legitimacy'

Previously, transition scholars have also linked transition management to the norms of input, throughput and output legitimacy. Hendriks (2009) suggested that for transition management to increase its democratic legitimacy in terms of input, it needs to be embedded more closely in representative democracy. For instance, by liaising with elected representatives, spending more attention on inclusiveness, and using the process for encouraging public debate through publicity. Meanwhile, Grin (2012) has argued that input legitimacy is impossible, as transitions will not come from "*traditional, democratically legitimated governmental action*". Similarly, output legitimacy would be problematic since transitions are per definition long-term processes, which would render any statement about policy efficacy impossible (Grin, 2012). Legitimacy for transition governance could be co-produced between different 'levels' in transition dynamics (Grin, 2012; Hendriks and Grin, 2007), e.g. by reasoning that it prepares regimes for (albeit contested) landscape developments, or that structural change is needed for (niche) solutions to address persistent problems. Grin (2012) also suggests that appreciation of "relevant others", e.g. the EU commission, may also be important for legitimising transition governance. In response, Jhagroe (2016) criticised Grin for *a priori* assuming the nation-state and its related institutions by using input and output legitimacy, rather than assuming a post-foundational lens as explained in Section 2.1.

As explained in Section 2.2, we hold that input legitimacy does need to be dealt with due to the entanglement of niche practices and

Table 1
Framework combining legitimacy dimensions based on liberal democratic norms and based on a transitions perspective (in bold).

Type of legitimacy	Definition Bekkers and Edwards (2007)	Dimensions (norms)	Definition	Source(s)
Input legitimacy	"*refers to a number of norms that can be related to the values of political equality, active citizenship and popular sovereignty*"	Opportunities for participation	Citizens and other societal actors are (equally) enabled to take part in political decision-making, public debate and policy-making.	Bekkers and Edwards (2007)
		Eliciting alternative perspectives	Alternative perspectives (i.e. different from dominant discourses) are actively enlisted, e.g. by involving front runners.	Loorbach (2010)
Throughput legitimacy	"*certain qualities of the rules and procedures by which binding decisions are made*"	Quality of citizen participation	Transparency, accountability, openness and inclusiveness are enhanced.	March and Olsen (1995) in Bekkers and Edwards (2007); Schmidt and Wood (2019); Schmidt (2013)
		Checks and balances	Processes to check the power of the process, e.g. political mandate, ratification local council.	Bekkers and Edwards (2007)
		Cultural imaginaries	A broad range of possible long-term directions (incl. fundamental changes in norms, values and ethics) are discussed during the process.	Loorbach (2010); Pel et al. (2020b)
		Institutional work	Institutions, i.e. rules, regulations, and routines are challenged.	Loorbach (2010); Loorbach et al. (2017); Pel et al. (2020a)
		Reflexivity	Ideas and actions are continuously questioned and adapted to new insights.	Beers and Van Mierlo (2017); Voß et al. (2009)
Output legitimacy	"*concerns the capacity of government to produce certain output or outcomes that actually contribute toward remedying collective problems*"	Responsiveness	Outcomes are effective and responsive to the people's wishes.	Bekkers and Edwards (2007)
		Guided action	Short-term actions are linked to (long-term) cultural imaginaries and institutional change.	Grin et al. (2010); Loorbach (2010)
		Collective empowerment	New sets of social roles and relations are set in place.	Loorbach (2010); Roorda et al. (2014); Wittmayer and Loorbach (2016)
		Reflexive governance mechanisms	Governance mechanisms open to a diversity of actors are set up to evaluate the performance and adapt outcomes to new insights and possible pathways in the face of uncertainty.	Scoones et al. (2020); Stirling (2011)

regime structures, and that statements about output legitimacy are possible when a clear direction (e.g. climate neutrality by 2050) has been formulated. However, we also concur that only orienting towards liberal democratic norms is insufficient when wanting to account for the 'radical core' of transition management. To prevent a mere reproduction of regime structures, normative dimensions of transition legitimacy need to be taken into account, e.g. the importance attributed to alternative perspectives.

Using input, throughput and output as a way to structure the process phases, we condense the dimensions proposed by Bekkers and Edwards (2007) to those that are most relevant to transition management practices, and complement these dimensions with insights from sustainability transition studies. Taken together, as demonstrated in Table 1, these dimensions allow to assess the legitimacy of transition management practices both in terms of liberal democratic values based on collectivist and liberal democratic traditions, and normative dimensions of transition legitimacy.

3. Methods and analysis

To explore how transition management practices are legitimised in practice, we draw on research data collected in the context of an EU-funded transdisciplinary research project, TOMORROW. The research team included a research institute, a city network (Energy Cities), four city administrations and two city energy agencies (both referred to as 'cities' or 'policy workers') (see Table 2 for an overview of the cities). The cities are interested in understanding the governance of later phases of transitions specifically the institutionalisation of new ideas, activities or social relations. They are all signatories of the Covenant of Mayors, and thereby have committed to a minimum of 40% CO2 reduction by 2030 (Covenant of Mayors, 2021). To reach this goal, they experiment with new ways of governance, i.e. transition management, and CO2 reduction targets, their 'radical core', and democratic legitimacy are key governance elements at stake. Based on transition management principles, frameworks and practices, a process guideline for developing transition roadmaps was developed consisting of five steps, from positioning the city to initiating self-sustaining governance structures overseeing the roadmap implementation.

At the time of writing, the cities had finalised their preparatory activities for adapting and designing their transition roadmapping process, which was documented in a workplan. These workplans included their climate ambition and 'radical core', i.e. related changes in governance and organisation, system and actor analyses, as well as the scope of their process in terms of geography, sectors, institutions and emissions, and the members of their 'transition team', i.e. organising committee.

While the cities share decarbonisation ambitions, they constitute a diverse sample in terms of (a) geographical spread, (b) population size, and (c) key characteristics. The analysis is based on the following primary data: 6 online semi-structured interviews with in total 9 city representatives, review of 6 completed work plans, transcripts of 6 peer-to-peer (between cities) discussions of these work plans, and summaries of 4 transdisciplinary workshops (between 4 and 8h) with the cities on elements of the process guideline, including system analysis, inclusiveness and participation, and reflexive monitoring. All workshops except for one were organised online. The data collection took place in the period from February 2020 to April 2021.

Empirical data analysis was done both deductively and inductively. The deductive analysis took the legitimacy criteria as coding framework (see Table 3 for the operationalisation). For the inductive analysis, activities and framings related to legitimacy were coded in a grounded theory fashion. The deductive coding was done by one researcher with systematic spot checks by a second researcher to refine the coding approach, and the inductive set of coding was done by one researcher. Preliminary findings were shared with the city teams for validation. As the cities had not started with their implementation yet, statements concerning input and throughput assume that it was anticipated to make space for certain elements such as cultural imaginaries or institutional work, and insights under output legitimacy capture the expected outputs as communicated by the policy workers.

4. Empirical findings legitimising transition roadmapping

In this section, we analyse how the six European cities self-describe the 'radical core' of their transition management process (see Table 4), to then discuss how the cities legitimise their planned practices in terms of input, throughput and output legitimacy (Tables 5–7).

4.1. The radical core of the TOMORROW cities

While all cities are signatories to the Covenant of Mayors, and as such strive for a fairer, climate-neutral Europe by 2050, within the transition management process it was key for the cities to prioritise what governance elements needed to be addressed for this goal to be reached in their specific context. We refer to this as the 'radical core' of the cities and consider this to be at stake in the context of the dynamic of 'capture'. The radical core needs to be protected to prevent it from being 'neutralised' in existing structures, while also needing to be instrumentally used (i.e. captured) by existing structures to transform how sustainability is governed. Depending on contextual factors, this resulted in different radical cores. For Brasov, a post-socialist context, setting up collaborations between city hall and external actors and citizens was identified as a primary focus. Similarly, in Niš, power sharing with actors outside the municipal organisation was described as the core innovation of their process. For Mouscron, a small Wallonian municipality, the radical core concerned involving a broader network of stakeholders, improving internal collaboration in city hall to align climate policy across different services, and lobbying to effect regional and national regulatory frameworks. Brest métropole formulated a radical core regarding mobilising and connecting local actions and creating shared ownership of the roadmap, based on a perceived disconnect between citizen and municipal actions. Dublin identified creating a 'transition community' with more ambitious climate goals and engaging citizens from the start of the process as their radical core. València started from a context where there were already

Table 2
Key characteristics of case study cities.

City name	Brasov (RO)	Brest métropole (FR)	Dublin (IE)	Mouscron (BE)	Niš (RS)	València (ES)
Population	286.000	210.000	1.347.000	58.700	256.000	815.000
Initiating actor	Agentia Pentru Managementul Energiei Si Protectia Mediului Brasov (ABMEE) - Energy agency	Urban Ecology Department of Brest Métropole together with Pôle Métropolitain du Pays de Brest	City of Dublin Energy Management Agency Limited (CODEMA) - Energy agency	Energy Department of the City of Mouscron	Department of Energy and Communal Services at City of Niš	Department of Renewable Energy and Climate Change at the City of València together with the foundation València Climate and Energy (VCE)
Key characteristics	Seventh most populous city in Romania; large commercial hub	Port city and third largest metropolitan area in Brittany	Capital and largest city of Ireland	Walloon municipality with industry history in textiles	Third largest city of Serbia and located in the centre of the Balkans	Third largest city in Spain; fifth biggest port in Europe
Climate ambition	- 55% less GhG emissions and 32,5% less energy consumption in 2030 compared to 2008 - Climate-neutrality in 2050	- 34% less GhG emissions by 2030 compared to 2010 - 75% reduction by 2050 compared to 2010	- 40% less GhG emissions by 2030 - Carbon neutrality by 2050	- Go further than current goals of 40% less GhG emissions by 2030 compared to 2006 - 85% less GhG emissions by 2050 compared to 2006	- Go further than current goals - 55% less GhG emissions in 2030 compared to 1990 levels - Climate neutrality in 2050	- Go further than 40% less GhG emisisons by 2030 - Climate neutral by 2040

Table 3
Empirical questions derived from the types of legitimacy.

Type of legitimacy	Dimension	Empirical question
Input Legitimacy	Citizen participation	What opportunities for participation are provided?
	Eliciting alternative perspectives	What sustainability and justice perspectives are taken up?
Throughput legitimacy	Quality of participation	In which ways is the quality of participation enhanced?
	Checks and balances	What checks and balances are involved in the process?
	Cultural imaginaries	Which cultural imaginaries are deliberated on?
	Institutional work	Which institutions are challenged?
	Reflexivity	In which ways is ongoing questioning and adaptation of actions encouraged?
Output legitimacy	Responsiveness	Which outcomes are effective, and responsive to the wishes of the people?
	Guided action	Which concrete actions are linked to institutional change and long-term cultural imaginaries?
	Collective empowerment	Which outcomes are linked to changes in social relations and roles?
	Reflexive governance	In which ways are actors held accountable to the outcomes? In which ways are outcomes adapted to new insights?

Table 4
The self-identified ‘radical core’ of the TOMORROW cities.

City	Radical core
Brasov (RO)	- Permanent collaboration across city departments for climate targets
	- Permanent collaboration between city and external stakeholders
	- Involve citizens and use their input for public policy
	- Integrate social perspectives and reflexive thinking in energy planning
Brest métropole (FR)	- Mobilise actions e.g. alliances between actors
	- Connect local actions to changing national regulations/market rules
	- Ignite collaboration between internal services through transition team
	- Share the creation, implementation and monitoring of the roadmap to 2050 with external actors
Dublin (IE)	- Create a ’transition community’ of stakeholders dedicated to implementation roadmap
	- Engage citizens from the start of the roadmapping process
	- Change mindset of local organisations to commit to actions that go further than their own agenda and pro-actively act on climate action
Mouscron (BE)	- Involve more target groups and stakeholders in climate plans
	- Start communication and collaboration between departments for climate objectives
	- Change the regulatory framework
Niš (RS)	- Share power between the municipality and external actors (i.e. citizens or citizen representatives)
	- Involve citizens in the roadmapping process
	- Involve a university professor to lead the process
València (ES)	- Collaborate with external entities to define the roadmap (quintuple helix, i.e. government, business, NGO’s, media, academia)
	- Work with projects/ experiments as a starting point
	- Have other sectors/entities lead parts of the process
	- Provide ownership of roadmap to citizens
	- Identify and facilitate upscaling of energy niches

many climate initiatives unfolding in the city. Hence, they defined their radical as supporting these initiatives to scale up and setting up a lasting collaboration between sectors, as well as transferring ownership of the roadmap to entities outside of city hall.

4.2. Input legitimacy

In all the cities’ radical cores the ambition can be seen to provide diverse opportunities for participation of citizens and other actors such as NGOs, private companies, media and academia with differing degrees of responsibility and power in decision making (see Table 5 for the analysis of Input legitimacy). The term citizen, however, is used in a rather undifferentiated manner. For instance, in some cases NGO and other organisational representatives are considered both as individual citizen participation and as representatives of certain causes (Brasov, Niš). As expressed by Niš: “*I think that we will have both representatives of institutions and organisations. (…) They will be recognised as citizens.*”

For most cities, the responsibility for the design and organisation of the transition management process lies with the transition team, a group initiated by local policy workers and consisting of members from the local municipality and from external stakeholders. Opportunities for participation often take the form of workshops or working groups to discuss the content of the roadmap (Brasov, Dublin, Mouscron and Niš). Participation is also invited via citizen debates, citizen conventions and online fora – these come in different guises: a Climate COP (Conference of the Parties) (Brest), a transition fair and website (Mouscron), citizen assemblies (Dublin) or an online tool (Niš). Additionally, citizens are invited to submit initiatives for support and funding (Brasov, Brest, Dublin and Mouscron). Finally, citizens and/or other actors are invited to commit to actions either through an awareness campaign, commitments in a charter or a pledge (Brasov, Brest, Mouscron and València). As explained by Brest: “[The charter is a] r*esponse to reflect on [the] role of inhabitants in the city: asking employers, the university, local mayor etc. to take action*”. Notably, many of these citizen engagement activities seem to focus on changes on the individual or organisational level. This begs the question about the degree of

Table 5
Legitimacy framework case studies - Input.

Dimension	Brasov (RO)	Brest (FR)	Dublin (IE)	Mouscron (BE)	Niš (RS)	València (ES)
Opportunities for participation	- Development of roadmap through focus groups with city departments, local stakeholders and a public consultation - Local awareness campaign of measures citizens can take for climate neutrality through six workshops with 20–30 selected citizens and representatives - Contest of ideas for how to become Green Capital of Romania - A transition team with stakeholders from relevant sectors	- Commitment charter public and private stakeholders can collectively sign and peer review - A local Conference of the Parties (COP) and scientific and technical group will provide feedback on the roadmap - Citizens are consulted about vision for Brest in 2050 - Financial and organisation support for micro-projects through 'Climate Factory'	- Co-design roadmap process with citizens and front runners from the beginning and involve and consult them for input - Citizens and stakeholders can contribute through citizen assemblies where they will be presented with evidence (i.e.Dublin Region Energy Master Plan) and can submit ideas through events and online channels - A transition team consisting of leaders from six stakeholder categories and front runners	- Citizens can set the agenda for the roadmap through workshops, a transition fair and website - Working groups on several topics with citizens already working with city departments - Citizens can propose initiatives for an 80k participatory budget	- Six workshops involving 50 stakeholders (e.g. participants from companies, NGO's, active citizens, high officials public administration) - Online communication tool to discuss new ideas and options for the roadmap prepared by the transition team	- External committee with representatives of five sectors (civil society, academia, private sector, public administration and the media) to select demonstrations projects develop a long-term climate strategy - Communication activities and public events to involve citizens in the definition and validation of the roadmap, while motivating individual actions. - Citizens can join the Climate Alliance and commit to local pledges
Eliciting alternative perspectives	- Implement a green transition that is inclusive and fair - Develop the city's future with all stakeholders - Include voices that are usually not heard	- Citizens are consulted on vision of a climate-neutral city - Organisations and individuals can put forward how they will reduce CO2, and what should be included in the roadmap - Invite actors who are resistant to climate targets to commit to charter	- Include voices that are usually not heard to understand the feasibility of proposed policy and listen to their considerations - Include front runners in transition team	- Include people whose voices are not usually heard - Include views from all city departments for climate policy	- Include actors who are not in favour of energy transition - Include actors who were previously not heard in the process - Have university professor as head transition team	- Involve actors from five sectors and citizens

impact of individual actors who voluntarily commit to self-identified objectives. Besides, the rationale behind citizen engagement in some cases appears to be, at least partly, motivated by preventative concerns, as stated by Brasov: "*We have to because otherwise they will not feel [a] sense of ownership of solutions. (…) Otherwise, it's always going to be an insatisfaction (sic).*"

While mention is made of a 'green' and 'fair' transition, what this exactly means remains vague. It is specified to the extent that citizens and stakeholders are actively involved in developing climate actions, city departments are collaborating, and 'voices that are usually not heard' are aimed to be included. As Dublin mentions: "*It's […] looking at the best ways for inclusive public participation and making sure all sectors of society are included, from elderly people [to] single parent families. […] We're all sick and tired of being told to retrofit our homes when you need 50.000 euros to do that to begin with. […] Most people do not have that kind of cash lying around. So it's about […] getting real and actually listening to the people that you're talking to*". However, it remains unclear who those unheard voices exactly are, as well as what the mechanisms are through which this inclusion can be guaranteed. As expressed by Mouscron: "*We have to find […] the people [that] are not involved. We have a Facebook page for the city, […]. I hope it will be the way to find them, [or] through the local press [or] a poster campaign.*" Brest and Niš both emphasise that they will include actors who have previously opposed energy transitions in conversations to incorporate their views in the process, and Dublin refers to including front runners as part of their transition team.

4.3. Throughput legitimacy

Much is mentioned about how the process will strengthen the quality of participation (see Table 6 for the analysis). All cities argue that developing opportunities for citizen participation, inviting their ideas and feedback, connecting municipal departments to external stakeholders and improving communication between them, will increase the quality of participation. Dublin plans to co-design the transition management process and the participation process with citizens. Brasov, Dublin, Mouscron and València assume that communication and awareness campaigns will result in better informed citizens, as more knowledge on climate topics would enable citizens to better represent their interests and to mobilise. The exact methods with which this will be achieved remain unclear, as well as how the framing of these campaigns will be decided on. Also, Brasov and Mouscron mention how transparency of the process can improve participation, and eventually might create trust. Brest and Dublin emphasise creating trust as a key component: while Brest does aim to avoid greenwashing through pledges and it tries to encourage ambitious engagement, they do not make hard judgements on pledges to prevent excluding partners. Dublin mentions mobilising local ambassadors and using the network of front runners to create a network of stakeholders. Finally, including the representation of weak interests are mentioned. Dublin and València both highlight the need to balance power relations within the transition team through careful evaluation and selection. It remains unclear how processes of participation taking place in parallel link to each other, and how the results will be translated into a final roadmap of actions, taking into account conflict, trade-offs and power differences, and what the role of the transition team will be in this (i.e. how much 'say' participants have in final outcome). In València the public administration is explicitly put forward as a neutral entity in this regard: "*People identify the public administration with the neutral part (sic), because we do not have economic interests.*"

All cities position the process in relation to checks and balances. The process is embedded in regional, national and international commitments that have been made by the city in the Sustainable Energy and Climate Action Plan (SECAP) as part of the Covenant of Mayors, which is already part of their city's strategic plan. It is argued that the transition management process bridges the commitments made in the SECAPs with input from stakeholders and citizens, and formulates the actions needed to realise the commitments. Brasov and València even aim to formulate more ambitious targets through the process. Next to the SECAP, cities mention other strategies and plans in which the roadmap is embedded, such as urban planning processes. Mouscron: "*At the national level, there [is] the entire federal energy pact of the state of 2017, the energy climate plan for 2020 to 2030. We have the energy policy by 2050 and the air climate energy plan by 2030, [and] all our actions are guided by this plan.*" The fact that the cities' mayors have signed the application to participate in the EU-funded TOMORROW project is also seen as a political approval of the process. All cities mentioned that the outcome of the process, i.e. the roadmap to 2050, will be ratified by the local councils or CEOs of Local Authorities, and only then will the outcomes be binding. This makes the implementation of the resulting roadmap vulnerable to fluctuating political support. In Niš, elected representatives are directly involved in the transition team, and in Brest four elected representatives are involved through an additional overseeing committee.

The dominant cultural imaginary that is deliberated is that of carbon neutrality, i.e. an urban society without carbon emissions in 2050. This possibly indicates a prioritisation of measurable metrics over cultural imaginaries. Furthermore, a culture of citizens and stakeholders collaborating directly with the municipality to realise collective strategic goals is mentioned, as well as individual citizens who adjust their consumption behaviour in line with climate neutrality targets. Cities promote the process as an opportunity to become an example city for other cities in energy transitions, such as Brasov striving to become the Romanian Green Capital. In Brest, the process is put forward as an opportunity for economic growth. All cities have identified sectorial boundaries (as part of the methodology), which arguably already closes down the scope of cultural imaginaries.

Institutions that are challenged in the process primarily concern the municipal organisation. Institutional siloes and fragmentation, e.g. on policy objectives or financial planning, are identified as problems. Mouscron: "*We always think about CO2 emissions and not the other departments. They do their job. They do not have objectives, they do not have the Covenant of Mayors aims. […] The politicians did not do the transition between the departments (sic).*" Actions proposed to address this are limited to the establishment of collaborative working groups across departments, or a new, 'bridging' organisation or committee. Brest and Mouscron mention (indirectly) affecting national regulations and financing mechanisms through developing networks, while València aims to foster institutional change in the municipality through actions suggested by an external energy transition team. Mentions of major emitters e.g. from industry appear to be absent.

Reflexivity, i.e. ongoing questioning and making adaptations, is part of the process by design through the TOMORROW project, in

Table 6
Legitimacy framework case studies – Throughput.

Dimension	Brasov (RO)	Brest (FR)	Dublin (IE)	Mouscron (BE)	Niš (RS)	València (ES)
Quality of participation	- Co-design climate actions with citizens and stakeholders - Educate citizens about their impacts on climate through communication campaign - Increased communication between municipality, private sector, and citizens - Increased transparency and communication about policy process	- Create trust between actors involved and build confidence to engage and mobilise - Open events to share progress, meet actors and debate	- Provide a mechanism for citizen feedback and ideas throughout the entire process - Educate citizens by defining the 'why' of the roadmap in a public engagement campaign - Mobilise local opinion leaders and peer-to-peer learning to involvepeople and create trust - Develop a stakeholder network developed through front runners - Manage an equal power balance amongst the transition team and bringing a range of power, influence, skills and diversity to the team	- Citizens can participate in workshops and through social media and a website - Increased transparency	- Through workshops different opinions and advice of the energy department for the roadmap are discussed - Aim to be transparent and as open as possible and pay attention to gender balance	- Motivate participation amongst citizens - Increase transparency by sharing progress on process during monthly meetings - The selection of Energy transition team members was done following a system mapping methodology, taking into account category, influence, necessity, relevance, interest, expertise, attitude, type of expertise, type of knowledge, type of competences, type of power and power level
Checks and balances	- Signed commitment to Horizon2020 project TOMORROW by mayor - Process is operationalisation of SECAP 2030 climate targets - Outcome will be ratified by local council	- Signed commitment to Horizon2020 project TOMORROW by mayor - Process is supervised by elected representative - Process is operationalisation of SECAP 2030 climate targets - Outcome will be ratified by local council	- Signed commitment to Horizon2020 project TOMORROW by mayor - Operationalisaton of SECAP targets and response to questions from local councillors on needing to expand the scope of climate plans and create ownership by actors - Embedded in Dublin Climate Change Action Plans, local development plans, National All-of-Government Climate Action Plan, the National Energy and Climate Plan, the new Climate Action Bill - CEOs of Dublin Local Authorities will sign-off the outcomes, as will elected council members, and head of Strategic Policy Committees in each local authority - Endorsement from the Minister for the Environment, Climate and Communications	- Signed commitment to Horizon2020 project TOMORROW by mayor - Process is operationalisation of National Energy Climate Plan 2021 - 2030 (PNEC), the Renewable Energy and Climate Action Plan (PAEDC) 2018 - 2030, the Transveral Strategic Plan (PST) 2018–2024, Plan Communal de Mobilité (PCM) and the implementation of the SDGs. - Outcome will be ratified by local council	- Signed commitment to Horizon2020 project TOMORROW by mayor - Linked with strategy of Sustainable Development by 2027 of Niš, SUMP, energy efficiency program, residential buildings retrofitting program, smart city strategy, and district heating strategy - Elected representatives will be involved in transition team activities - Outcome will be ratified by local council	- Signed commitment to Horizon2020 project TOMORROW by mayor - Relates to SECAP - Align with national, regional and local laws, policies, administrative processes and regulations and 2030 Urban Agenda of the Mayor's office - Outcome will be ratified by local council

(*continued on next page*)

Table 6 (*continued*)

Cultural imaginaries	- Carbon neutrality in 2050 - Citizens and stakeholders directly influence and contribute to policy decisions on needs for the city - Citizens take responsibility for their energy consumption behaviour - Brasov as example green city in Romania	- Carbon neutrality in 2050 - Coalitions of actors collaborate to implement climate actions voluntarily - Carbon neutrality as an economic opportunity - Citizens need to reduce their carbon footprint - Invite citizens to discuss visions of Brest in 2050	- Carbon neutrality in 2050 - Change mindset of all local organisations to commit to actions that go further than their own interests, and pro-actively act - Invite stakeholders to discuss visions of Dublin in 2050	- Carbon neutrality in 2050	- Carbon neutrality in 2050 - Niš as example city in the Balkans	- Carbon neutrality in 2050 - Collective reflection and alignment by five sectors to address strategic issues
Institutional work	- Collaboration between internal departments and private sector and civil society representatives for climate action	- Indirectly affect structural issues such as national regulations, market rules through strategic alliances between actors - Strengthen ability to link projects together and work across internal communication between departments - Finance climate action through strategic financing partners	- Create a norm for internal departments to collaborate with organisations	- Transition team across internal departments including Environment, Energy, Culture, Communication, Sports, Finance, etc. - Increase communication and alignment between the municipal departments e.g. on subsidies and objectives	- Include citizens in policy making process - Establish a Secretariat for Energy and Energy Efficiency, including a One-Stop Shop to provide support to citizens with energy efficiency measures	- Create an internal municipal committee that updates and tracks the SECAP - Align the actions of actors and city departments - The external group develops the strategy of the city, and the internal commission adjusts their action plans to that strategy
Reflexivity	- Install a transition team to improve and monitor the SECAP - Workshops and interviews as part of TOMORROW project	- Bi-monthly meetings from a monitoring committee monitoring the implementation with engaged stakeholders based on indicators - Organise a period of reflexivity by a small committee to review the project's progress - Resulting propositions will be checked by scientific committee and committee of citizens during COP - Workshops and interviews as part of TOMORROW project	- Monitor KPIs and use reflecting in transition team in quarterly meetings - Embed learning from process in CODEMA transition team and four Dublin Local Authorities through sharing of learning material and having training workshops - Workshops and interviews as part of TOMORROW project	- Monitor KPI's in transition team - Workshops and interviews as part of TOMORROW project	- Workshops and interviews as part of TOMORROW project	- Systematic analysis of the outcomes of each session and correcting unbalances - The transition team is the first working group that the city is forming to draft its Urban Agenda: periodic evaluations are done to extract lessons learned on methodology, logistics, working dynamics, etc. for the other working groups - Workshops and interviews as part of TOMORROW project

Table 7
Legitimacy framework case studies - Output.

Dimension	Brasov (RO)	Brest (FR)	Dublin (IE)	Mouscron (BE)	Niš (RS)	València (ES)
Responsiveness	- Increased effectiveness of policies through coordinated actions of municipality, citizens and other stakeholders	- Increased effectiveness of policies through coordinated actions of municipality, citizens and other stakeholders	- Increased effectiveness of policies through coordinated actions of municipality, citizens and other stakeholders	- Increased effectiveness of policies through coordinated actions of municipal departments	- Increased effectiveness of policies through coordinated actions of municipality, citizens and other stakeholders - Higher quality of actions through review by citizens	- Increased effectiveness of policies through coordinated actions of municipality, citizens and other stakeholders
Guided action	- Roadmap to climate neutral 2050	- Roadmap to climate neutral 2050	- Roadmap to climate neutral 2050	- Roadmap to climate neutral 2050	- Roadmap to climate neutral 2050	- Roadmap to climate neutral 2050
Collective empowerment	- Mobilise actors to organise and finance actions to implement goals	- Collaboration across (previously uninvolved) actors to achieve commitments in charter	- A Transition community committed to rolling out the roadmap, ensure the roadmap is included in other non-municipality plans - Citizens will be engaged and aware of the actions and promises made by various actors and stakeholders, this will help hold them accountable.	- Committed citizens and public stakeholders to the ambitions of the City of Mouscron and follow up on a list of feasible actions	- Secretariat for Energy and Energy Efficiency and One-Stop Shop for citizens	- A permanent internal commission to coordinate the implementation - Citizen involvement through monitoring
Reflexive governance mechanisms	- City council will hold itself accountable for implementing roadmap - The transition team will have quarterly meetings to evaluate progress - SECAP is evaluated every 2 years, including performance technical indicators	- A questionnaire will be shared what to keep, improve or review if the experience is to be replicated - Create a legal structure for the implementation of the roadmap - Improve the evaluation of the SECAP and local GhG emissions	- Define KPI's, track actions annually, report back to stakeholder groups to discuss achievements/barriers and Plan B options	- At political level set up a steering committee made up of aldermen - Ad hoc legal structure for governance process with voluntary members to oversee implementation	- Energy transition council as an advisory body, with representatives of academia and institutions (5–10 people) that come together once a month to oversee implementation	- Technical office to coordinate the follow-up of the roadmap - Participatory monitoring through a biannual working group or city council - A public scorecard that visually presents the content, outcomes and progress of the roadmap and periodically update the status of different actions and KPI's

which the cities regularly convene to reflect on their progress. Cities also organise reflexivity as part of their transition teams or by setting up a monitoring committee. Evaluation is generally organised by monitoring Key Performance Indicators (KPI's). Dublin and València have (informal) mechanisms in place to translate the learnings from the transition team to related projects or organisations. As formulated by Dublin: "*We will strive to be very open about the mistakes we make along the way and what has not worked and communicate this back to the transition team and other external stakeholder groups that need to be informed.*" More specific reflection on how the indicators will be evaluated, as well as the role and potential bias of the transition team as an arbiter, is not mentioned as part of these reflexivity processes.

4.4. *Output legitimacy*

Actual output legitimacy can only be claimed once the outcomes of the practices are clear (see Table 7 for the analysis): we here focus on the expected, rather than actual, outcomes. The extent to which the outcomes will be effective and respond to peoples' wishes is mainly considered through an anticipated increase in effectiveness of policies resulting from coordinated actions of the municipality, citizens and other stakeholders. It is assumed that by involving citizens, ownership of the plans is created, while simultaneously creating popular support and demand. Consequently, this would increase the likeliness of 'high quality' proposed actions, successful implementation, and adoption by the council. As stated by Niš: "*I think that it [the transition roadmap] will be adopted […] I do not expect many comments.*" Importantly, financial viability and budget for implementing the plans is not an integral part of the expected outcomes or what will be ratified by the council. As a result, the actual implementation depends on whether financial resources can be secured later on in the process.

All cities aim for short-term actions to be formulated in their roadmaps, although the level of detail of how these relate to institutional change and long-term cultural imaginaries is not yet defined. Changes in social relations and roles (i.e. collective empowerment) are implicated in the ambitions to sustain voluntary collaborations between the municipality and external actors, and that external actors and citizens will remain mobilised to implement actions and evaluate progress, in what Dublin coins a 'Transition community'.

All cities propose ways in which actors involved can be held accountable throughout the implementation, and for adapting the roadmap and actions based on new insights. In Brasov the city administration is in charge of implementing most of the goals in the roadmap, and the transition team will convene quarterly to monitor the progress and possible adaptations. Brest, Dublin, Mouscron, Niš and València propose to set up stakeholder groups (possibly as independent legal structures) to oversee the implementation of actions and to hold actors accountable, e.g. based on certain indicators. In addition, València aims to develop an online accessible visual scorecard to the performance on the activities and targets in the roadmap. How the course of action may be altered based on changing insights is not specified.

5. Discussion

In this section we first elaborate on three tensions in legitimating transition management practices while navigating innovation capture, and second, reflect on how the legitimacy framework might be used to better understand and implement transition management practices.

5.1. *Tensions in legitimating transition management practices while navigating innovation capture*

5.1.1. *Emphasis on liberal democratic dimensions over transition dimensions*

The legitimation arguments emphasised by the cities seem to mainly appeal to the dimensions of *Opportunities for participation (Input), Quality of participation (Throughput),* and *Responsiveness (Output)*, which are all based on liberal democratic values as formulated by Bekkers and Edwards (2007). This may be due to the higher experience of policy workers in legitimating their work according to these values. Also, they are in a sense implementing recommendations made by Hendriks (2009), who suggested that in order for transition management to be more closely linked to institutional democracy, it needed to more directly engage with democratic institutions, focus on inclusiveness, and use the process as a way to communicate to the public.

In comparison, transition legitimacy dimensions are less emphasised or underdeveloped. With regards to eliciting alternative perspectives, the potential to open up possibilities by actively engaging a plurality of perspectives does not appear to be included by all cities. Instead, it is assumed that inviting citizens, or representatives of citizens will result in a diversity of perspectives. Not paying close attention to *how* this may be realised can result in situations in which elite actors have a disproportionate say in determining the outcomes, as commented earlier by Hendriks (2009).

Similarly, opening up space to discuss different cultural imaginaries and values is not a clear part of the planned processes. Rather, the *a priori* and pragmatic need to decide on boundaries of the process in terms of geography, sectors, institutions and scope of the emissions actually narrows down the space to discuss cultural imaginaries. For instance, deciding to exclude emissions that are not controlled by the municipality to create a stronger roadmap, means that broader cultural changes are excluded from the discussions. While Dublin and Brest do include visioning of the future, it is not clear how this links to actions that are developed, or how plural visions can be negotiated. This is especially relevant when considering that the process is framed as an economic opportunity in Brest, which indicates that certain deeper structures e.g. concerning economic growth remain unchallenged. Not taking this into account means shying away from ideological struggles and thus leads to depoliticisation (Chilvers et al., 2018; Debruyne and Bisschop, 2013; Kenis et al., 2016; Meadowcroft, 2009; Paredis, 2014).

Another dimension that seems underemphasised is changes by major organisations or in existing (in)formal institutions. It seems that many cities put an emphasis on the voluntary actions of individual citizens or organisations (e.g. Brest, Brasov, Dublin), rather than including problematic organisations such as major emitters from industry or address exploring problematic structures, such as fossil fuel subsidies. This could indicate that certain vested interests remain untouched and thus not made part of the political debate on energy transitions. The ambition to create trust between participants (i.e. in Brest and Dublin) and to mobilise as many actors as possible, which was juxtaposed with proposing ambitious actions that might alienate potential partners, could also indicate a non-conflictual, non-committal point of departure. However, as different phases of transitions require different governance strategies, dealing with agonism to close down towards concrete actions and institutional change could be a point to further explore. Finally, the degree of reflexivity within the process in some cases seems to be limited to a focus on Key Performance Indicators (KPI's) rather than (also) adjusting course based on developing insights on cultural imaginaries and institutional work.

All in all, our analysis shows that policyworkers are skilled in legitimating their actions vis-à-vis representative democracy and liberal democratic values. However, legitimation of transition management practices according to 'traditional' liberal democratic values only is likely to result in a reproduction of the status quo, rather than accelerate transitions. We acknowledge that radicality is conditional and can differ per context, which is why cities were invited to formulate these for themselves (see Table 4). Nevertheless, by the standards and ambitions formulated by the policy workers in the 'radical core', the plans of the cities also seem to be wanting. In neglecting these dimensions, the potential of transition management as a transformative and democratising process as put forward by Jhagroe & Loorbach (2015) is at risk of being lost, while the risks of depoliticisation or an elite focus remain relevant.

5.1.2. *Inclusiveness as an unproblematised and underoperationalised objective*

While *Opportunities for participation (Input)* and *Quality of participation (Throughput)* were emphasised as legitimation arguments, terms such as 'inclusiveness' or 'voices that are usually not heard' were used in a problematic manner. Inclusion and citizen engagement are part of the self-identified 'radical core', but there was less clarity on how to practice them. Co-production processes are notoriously sensitive to power dynamics: equal opportunity between actors participating in a process cannot be assumed, due to unequal access to (paid) time, knowledge, status, and influence (Turnhout et al., 2020). While Dublin and València want to account for unequal power dynamics, the suitability of their proposed formats (incl. online tools or workshops) seems not to be questioned. In addition, there is no investigation into structural reasons for past exclusions of certain actor groups.

Relatedly, cities seem not to reflect extensively on who 'citizens' are, and which other societal 'stakeholders' are included or excluded when inviting participants – this being inconsistent with their goal of being inclusive. For instance, while Mouscron aims to include previously unheard voices, its transition team invites citizens who are already involved with working with city departments for its workshops. Deciding on how decision-making processes are organised within the transition team, and who has what authority could also be deliberated on more. The implications of Niš appointing a university professor as chair, and the consequences on the internal power dynamics is also a relevant question in this respect. In Dublin and Niš, the transition team will develop proposals for actions which can be discussed and complemented during the participatory process. Meanwhile, Brest, Mouscron, and Brasov take a different approach through which the formulation of actions starts with citizens and stakeholders. Brest installed a scientific and citizen committee to calculate whether the suggestions suffice for realising the decarbonisation targets – but has not yet outlined how suggestions will be adapted.

All in all, what inclusiveness and participation come to mean in detail remains opaque. While this can partly be attributed to the research focussing on analysing the working plans, not further specifying these details may pose the risk of elitism (Hendriks 2009), and failure to perform on their self-identified 'radical core' or transformative potential as indicated by Jhagroe and Loorbach (2015).

5.1.3. *Closing down on outcomes remains a black box*

Finally, much remains unclear about how activities initiated by cities, such as workshops, citizen assemblies or charters, will lead to a 'closing' of decision-making on issues such as institutional changes, experiments, and finances. Indeed, how negotiation between preferences, values or mutually exclusive options will be organised is a blind spot for the cities. Who decides what actions are eventually reflected in the roadmap has much power over the outcome, and this requires discussion in terms of checks and balances, and 'guided action', i.e. how the activities will be linked to long-term ambitions.

All cities legitimise their transition management practices by arguing that the process bridges the SECAP ambitions, which are embedded in their cities' strategy, with actions to realise these. However, this does not dismiss the process of developing the *how*, i.e. the transition management process, of having to be legitimised. Besides, the process is vulnerable to political support: in all cases the outcomes are consultative. Cities have reported almost having to withdraw from the process after elections or having to 'work as a submarine' until political support could be secured. How to deal with political support and what the role is of elected representatives is not always explicated. There are several possible scenarios, including that a council will not ratify the process, or even that after ratification, no funding can be secured for implementing the roadmap. Funding might also largely depend on how legitimate the process is considered by different parties. Potentially, the political mandate of the anticipated outcomes of the process, in this case realising a carbon neutral 2050, might become more concrete in terms of the targets or directions that are set. For instance, in terms of phasing out a certain industry by a certain year, and/or reserving funding to achieve this.

5.2. *Opening up perspectives and possibilities through the transition legitimacy framework: three recommendations*

Having studied the design of transition management activities, we propose three recommendations for the cities moving forward. Considering that our cities represent a diversity of contexts working on decarbonisation, we deem these recommendations to be

valuable for cities beyond our sample alone.

5.2.1. Use the Transition legitimacy framework as a reflexive governance tool to navigate innovation capture

The framework opens up the question of how legitimacy can become an explicit part of designing a transition management process, something which has earlier been contested (e.g. Hendriks, 2009; Shove and Walker, 2007; Voß et al., 2009). Without addressing this, transition management runs the risk of being absorbed and reproducing dominant participation discourses. As a heuristic, the framework can sensitise actors to develop awareness of the institutions that they are working in, and the dimensions that they wish to add to or change in these institutions e.g. to develop short-term actions for long-term sustainability policy. In addition, it can unveil struggles particularly around neglecting the radical core, defining inclusiveness, and closing down the process. For instance, by analysing throughput legitimacy, it was found that the cities did not yet have a strategy for dealing with antagonism, dissent, or conflict in their process. Relatedly, the framework sheds light on the role of process initiators and their choices and responsibilities. Making these explicit encourages conversations about the skills and capabilities of facilitators (Hölscher, 2019).

5.2.2. Explicate conditionality of radicality

A condition for using the framework is to consider what is 'radical' in the context in which it is used. Adjusting the framework to the specific socio-historical dynamics of a system, should demonstrate what the radical core is and what the non-negotiable objectives of the process are (if any), and why. This also depends on the actors who initiate the process, as well as societal dynamics or dominant transition 'phase' of a given system (e.g. build up, optimisation, institutionalisation or break down, as put forward in the x-curve model (Loorbach, 2014a). For instance, a system where transition niches are scarce has different needs compared to a system where institutionalisation is starting to occur. This then requires different interventions and different ways of applying the framework. The cities in this paper already had certain non-negotiable imaginaries locked into their process (e.g. climate neutrality by 2050). To what extent this is desirable, what should remain open versus what issues are a priori closed down, and how this relates to transition dynamics requires closer debate and attention.

5.2.3. Create governance structures for accountability

As any social innovation, transition management should be transparent about its goals, and how it legitimises itself to prevent the reproduction of the very problematic structures it aims to address (Wittmayer et al., 2020b). Using the framework as a boundary object can provide transparency of the process and allows to organise accountability on the process, e.g. by involving people outside of the transition team through an accountability governance structure. Such a structure allows for political questions around issues of justice to be addressed more adequately and context-specifically, for instance by opening up or further specifiying the framing that was taken for this paper as justice constituting dimensions of liberal democracy for a given constituency.

6. Conclusion

This article started from the premise that there is an urgency to develop thinking on, and approaches for reflexive governance in stages of transitions that require institutional changes. Focussing on transition management, we explored the question 'How can transition management practices be legitimised while safeguarding their innovative potential?'. Bridging earlier responses to legitimacy critiques of transition management, we established that this form of reflexive governance needs to be captured, or, translated to a certain extent, to impact institutional change, and therefore ought to be explicitly linked to formal governance and decision-making structures. While this capture element is desirable to change the status quo, striking a balance by retaining a 'radical core' becomes a key challenge. We proposed a legitimacy framework for assessing transition management practices, which incorporates both democratic and transition norms. This framework was used to comparatively analyse case studies of transition management process plans in six European cities.

It was found that the emphasis on liberal democratic dimensions in comparison to transition legitimacy dimensions may affect the safeguarding of the innovative potential of transition management practices. Meanwhile, how liberal democratic dimensions such as *Opportunities for participation (Input)* and *Quality of participation (Throughput)* could be implemented remained unproblematised and underoperationalised in most cases. Moreover, the details of how the 'closing down' of policy options will happen remains opaque. Not tending to these important details increases the risk of falling to the earlier critiques of transition management as elitist or depoliticising practice. We identify opportunities for policy workers to use the framework as a reflexive governance tool, explore conditionality and set up governance structures for increased accountability.

Looking ahead, we identify two main areas for future research. First, further developing this framework by applying it as a heuristic with policy workers to evaluate what different strategies cities develop to deal with legitimising reflexive governance processes. Parameters such as geography, population size as well as how these strategies differ over time could be taken into account in this respect, as well as what legitimation is performed with regards to different actors, e.g. citizen groups, companies or NGOs. Importantly, how legitimation happens in 'closing down' towards actions (e.g. proposed institutional changes) requires deeper exploration. The case studies have been studied based on their working plans, but how legitimacy develops over time should be further researched. Another area of interest would concern a political philosophical turn regarding how to organise democratic legitimacy in a society in which reflexive governance, complexity and plurality are the norm. For instance, what happens when reflexivity leads to changing insights on justice or constituency (e.g. intergenerational justice)? Legitimation of governance practices might have to become more 'layered' and decentral to keep up with adaptability to changing norms, insights, and perspectives. The potential risks and threats of such developments will be important topics for further discussion.

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.

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