

## Chapter 2

# Governing Transitions in Cities: Fostering Alternative Ideas, Practices, and Social Relations Through Transition Management

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**Abstract** Sustainability transitions pose novel challenges to cities that go beyond traditional planning and urban development policies. Such transitions require broader engagement, empowerment, and breakthrough strategies which enable, facilitate, and direct social innovation processes towards adaptive and innovative urban futures. The transition approach offers a set of principles, a framework, instruments, and process methodologies to analyse as well as systematically organise and facilitate such social learning and innovation processes. During the past decade, researchers and policy entrepreneurs around the world have been experimentally applying the transition perspective in practice under the label of ‘transition management’. This approach is based on bringing together frontrunners from policy, science, business, and society to develop a shared understanding of the joint complex transition challenge, to develop collective transition visions and strategies, and to start strategic experiments. In this chapter we zoom in on the different elements of transition management (i.e., principles, framework, instruments, process methodologies) and their heuristic and operational use in the urban context.

**Keywords** Heuristic • Process methodologies • Sustainability transitions • Transition management • Urban context

## 2.1 Introduction

When talking about cities and the local level, there is no circumventing the impact that was caused by the 1992 United Nations Conference on Environment and Development in Rio de Janeiro. Here, the local level prominently entered the stage as an important context in which to address sustainability concerns as

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*“so many of the problems and solutions being addressed by Agenda 21 have their roots in local activities”* (UNCED 1992, Agenda 21, Chap. 28). In the decade after, this led to the emergence of thousands of Local Agenda 21 processes addressing sustainability concerns in cities, towns, and neighbourhoods all over the world (ICLEI 2012). Presently, some of these processes still flourish, whereas in Europe most have triggered follow-ups or have died out. The decreasing importance of this specific local process, as well as a more receptive local government sphere, are the backdrops for current ideas and practices of transition governance (Wittmayer et al. 2015).

A number of governance approaches have been developed in the context of a complex and uncertain world facing persistent problems deeply embedded in societal structures and multi-actor contexts. Such approaches aim to address the tension between *“the open-ended and uncertain process of sustainability transitions and the ambition for governing such a process”* (Frantzeskaki et al. 2012b). Examples are ideas and notions about adaptive governance (Olsson et al. 2006), reflexive governance (Voß et al. 2006; Grin et al. 2010), or transition governance (Loorbach 2007; Frantzeskaki et al. 2012b). These governance notions address a reality perceived as multiscalar, complex, nonlinear, uncertain, normative, dynamic, complex, and path dependent. From different (multi-)disciplinary backgrounds, these notions have been further developed into more specific approaches, such as empowering designs (Leach et al. 2010), strategic niche management (Kemp et al. 1998; Schot and Geels 2008), and transition management (Rotmans et al. 2001; Loorbach 2010; Frantzeskaki et al. 2012b). This chapter zooms in on transition management as a form of transition governance and specifically focusses on its recent ‘urban turn.’

When we refer to the urban context, we focus in particular on a number of specific characteristics of cities that should be taken into account in transition governance—namely, personal, institutional, and geographic proximity—as well as multiscalar and multi-domain interaction (see Table 2.1; cf. Loorbach and Shiroyama 2016, Chap. 1, this volume).

The notion of transition management was developed in the science policy debate leading up to the fourth National Environmental Policy Plan (NMP4) in the Netherlands in 2001 (Rotmans et al. 2001; Kemp and Rotmans 2009; Loorbach and Rotmans 2012; Voß 2014). During the past decade, researchers and policy entrepreneurs around the world have been experimentally applying the transition perspective in practice under the label of ‘transition management.’ This approach is based on (1) bringing together frontrunners from policy, science, business, and society to develop shared understandings of complex transition challenges; (2) developing collective transition visions and strategies; and (3) experimentally implementing strategic social innovations.

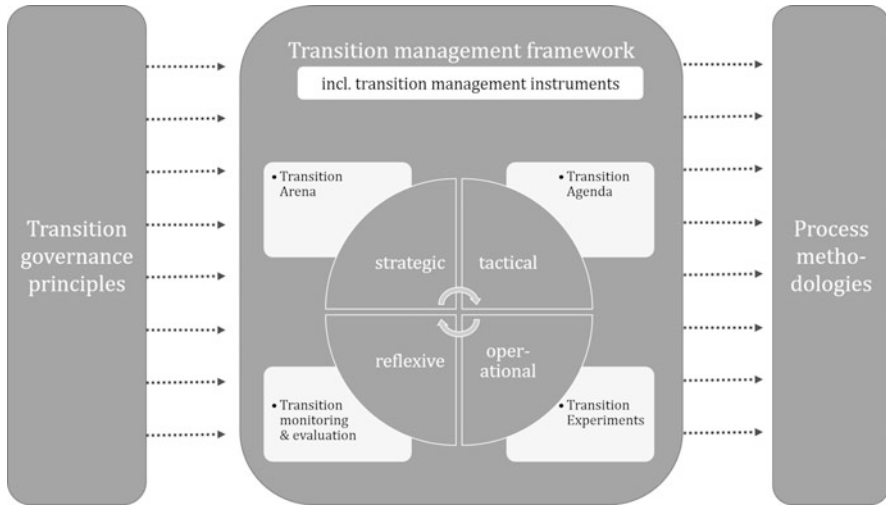
Transition management provides researchers with analytical lenses (i.e., heuristics; see Mizuguchi et al. 2016, Chap. 5, this volume; Shiroyama and Kajiki 2016, Chap. 7, this volume; Frantzeskaki et al. 2014a; Brown et al. 2013) to understand and analyse the dynamics of urban sustainability transitions both historically and in transitions in the making. Its concepts, introduced in more detail next, are also seen as powerful operational tools to help conceptualise and address the fundamental

**Table 2.1** Characteristics of the urban context

Characteristic	Description
Geographic proximity	Cities as places where spatial distances are smaller as compared to regions or countries (Boschma 2005; Coenen et al. 2012; Raven et al. 2012)
Multiscalar interaction	Cities as being nested in and constituting of different spatial scales and networks. Scales as actively constructed and interacted with, in ways that support actors in achieving their goals (Coenen et al. 2012; Nevens et al. 2013; Coenen and Truffer 2012)
Multidomain interaction	Cities as places where changes in different domains (e.g., energy, mobility, social care) come together and interact. (Nevens et al. 2013)
Personal proximity	Cities as living environments in which people have personal, emotional, and social stakes, including socially embedded relations and a level of trust ( <i>Related to the concept of social proximity by Boschma 2005</i> )
Institutional proximity	Cities share formal and informal institutions, including laws and rules as well as cultural norms and habits. (Boschma 2005)

changes necessary to move towards sustainable cities. They help people working on urban development to understand the complexity of their task and the complexity of the system they aim to influence and change. They also support articulating (shared) long-term ambitions to guide short-term actions (see Hölscher et al. 2016, Chap. 6, this volume; Frantzeskaki and Tefrati 2016, Chap. 4, this volume; Krauz 2016, Chap. 8, this volume; Wittmayer et al. 2014a, b; Roorda et al. 2014).

Transition management has been challenged and further developed through theoretical work and heuristic and operational application. Theoretical contributions focus on developing the concept by either grounding it in specific theories (e.g., Rotmans and Loorbach 2009; Frantzeskaki et al. 2012b) or by critiquing specific aspects, most prominently issues of power, politics, and agency. In terms of the latter, much theoretical work as well as practical experimentation sought to deepen our understanding of power relations and political implications and how they could be addressed (Smith et al. 2005; Shove and Walker 2007; Hendriks 2009; Avelino 2009; Kern and Howlett 2009; Meadowcroft 2009; Smith and Stirling 2010; Kern 2012; Jhagroe and Loorbach 2014). These contributions identify challenges of transition management in terms of who is governing, whose framings count (in terms of system, problems, goals, sustainability), and what is the relationship with democratic institutions, incumbent regime actors, and dominant discourses. Many of these challenges and others, such as the narrow focus on desired (versus undesired) transitions, technical systems, and a specific group of key actors, have been addressed in more recent work on transition management (see, for example, the chapters in this volume). Heuristically and operationally, transition management has been applied in a number of functional domains such as energy (Verbong and Loorbach 2012), water (Van der Brugge et al. 2005), and mobility (Avelino et al. 2012). Only quite recently has it been used to describe and prescribe governance processes in geographically bounded systems, such as cities (Nevens et al. 2013; Nevens and Roorda 2014; Ferguson et al. 2013; Wittmayer et al. 2014b, 2015), towns, and urban neighbourhoods (Wittmayer et al. 2014a, b).



**Fig. 2.1** Elements of transition management

After outlining the methodology (Sect. 2.2), we scrutinize transition management in the urban context by outlining different elements thereof and the ways these have been used heuristically and operationally (Sect. 2.3). With elements, we refer to (a) the principles of transition governance, (b) their translation in a management framework, and its associated operationalisation in terms of (c) instruments and (d) process methodologies (Fig. 2.1). Based on this analysis, we synthesise the promises and challenges for making space for alternative ideas, practices, and social relations in cities; and scrutinize the characteristics of the urban context and their meaning for transition management processes (Sect. 2.4).

## 2.2 Methodology

This chapter is based on both our experience in working with transition management and a literature review of transition management in the urban context. Both authors are involved in the practical and theoretical development of transition management thinking, from the very start of the concept (second author) up to its recent ‘urban turn.’ Our literature review encompassed more general literature on the theoretical and practical foundations of transition management next to literature on its applications in the urban context. Articles relating to the former were selected based on our experience with the field. These articles are used to provide an overview of the development of transition management, its different elements (principles, framework, instruments, process methodologies), as well as the different critiques it spurred. The literature on transition management in the urban context is just starting to emerge. We could identify a number of relevant articles examining the development, premises, and/or results of transition management in

the urban context by using Scopus and snowballing. This sample was broadened by reviewing grey literature on transition management in the urban context such as project reports. For the latter, we mainly focussed on the outputs of two European projects that constituted a breeding ground for the conceptualisation of transition management in the urban context: the FP7-funded InContext project (2010–2013) and the EU-Interreg-funded MUSIC project (2010–2015). As our focus in this chapter is on applications of transition management, we did not include similar developments in transdisciplinary sciences in this review (Wiek 2007; Lang et al. 2012; Wiek et al. 2014).

## 2.3 Transition Management

In this section we outline the elements of transition management, namely, the principles of transition governance, their translation in a management framework, and its associated operationalisation in terms of instruments and process methodologies (see Fig. 2.1). For each element, we first give a basic description and then show how it has been used in the context of cities, towns, and neighbourhoods. In so doing, we distinguish between different application types of transition management, namely, *heuristic applications*, employing the elements as an analytical lens for understanding and explaining governance processes, and *operational applications*, describing the application of transition management process tools to set up participatory sustainability processes (cf. Frantzeskaki et al. 2014b).

### 2.3.1 Transition Governance Principles

Since its inception, the concept of transition management as a governance approach to sustainability transitions has been theoretically further developed and grounded in complex systems, governance, and sociological theories (Loorbach 2007, 2010; Rotmans and Loorbach 2009; Grin et al. 2010; Frantzeskaki et al. 2012b). Based on an understanding of transitions as processes of fundamental long-term multilevel and multiphase change in complex, adaptive systems, a number of governance principles have been formulated. Building on work by Kemp and Rotmans (2009), Loorbach (2010, pp. 167–168) outlines the following nine principles for transition management.

- The dynamics of the system create feasible and nonfeasible means for steering: this implies that *content and process are inseparable*. Process management on its own is not sufficient—insight into how the system works is an essential precondition for effective management.
- *Long-term thinking (at least 25 years) is a framework for shaping short-term policy* in the context of persistent societal problems. This concept requires

backcasting and forecasting: setting of short-term goals, based on long-term goals, and reflection on future developments through the use of scenarios.

- *Objectives should be flexible and adjustable at the system level.* The complexity of the system is at odds with the formulation of specific objectives and blueprint plans. While being directed, the structure and order of the system are also changing, and so the objectives set should change too.
- *The timing of the intervention is crucial.* Immediate and effective intervention is possible in both desirable and undesirable crisis situations.
- *Managing a complex, adaptive system means using disequilibria as well as equilibria.* Relatively short periods of nonequilibrium therefore offer opportunities to direct the system in a desirable direction (towards a new attractor).
- *Creating space for agents to build up alternative regimes* is crucial for innovation. Agents at a certain distance from the regime can effectively create a new regime in a protected environment to permit investment of sufficient time, energy, and resources.
- *Steering from ‘outside’ a societal system is not effective:* Structures, actors, and practices adapt and anticipate in such a manner that these should also be directed from ‘inside.’
- *A focus on (social) learning* about different actor perspectives and a variety of options (which requires a wide playing field) is a necessary precondition for change.
- *Participation from and interaction between stakeholders* is a necessary basis for developing support for policies but also to engage actors in reframing problems and solutions through social learning.

Following these principles, transition management clearly perceives the governance of sustainability transitions as an open-ended process of searching, learning, and experimenting within societies. It has a clear focus on innovation and sustainability, because “*to develop sustainably means to continuously innovate and redefine existing culture, structures and practices in an evolutionary manner*” (Frantzeskaki et al. 2012b, p. 25). These principles offer a basic starting point for experimental operationalisation as well as for analysis and reflection.

Initially, these principles have been formulated, as well as further developed and empirically grounded, in the context of functional systems as well as a regional systems (cf. Loorbach 2007) and as such are not specific to the urban context. To date, there has been no reflection or adaptation of these principles to the urban context (Frantzeskaki et al. 2014b). The synthesis chapter of this book, which distils additional principles for transition governance in cities based on insights from this volume, is an exception in this regard (Wittmayer 2016, Chap. 9, this volume).

### 2.3.2 *Transition Management Framework*

The rather abstract governance principles have been translated in a management framework, the transition management cycle (see middle part of Fig. 2.1 for a simplified version). This framework distinguishes between governance activities at the following four levels (see Loorbach 2007, 2010).

- *Strategic-level activities*: Activities aimed at the long term through which the future is collectively debated and imagined; for example, visioning, long-term goal formulation, including collective goal setting and norm setting.
- *Tactical-level activities*: Activities aimed at the midterm and long term, targeting changes in established structures, institutions, regulations, and physical or financial infrastructures.
- *Operational-level activities*: Activities aimed at the short term, focussing on experiments and actions through which alternative ideas, practices, and social relations are practised, tried out, and showcased.
- *Reflexive-level activities*: Activities aimed at learning about the present state and dynamics in the system, and about possible future states as well as about the way from present to future: these include (collective) learning from ongoing operational, tactical, and strategic activities.

Although these activities are recognisable in other governance approaches or policy process models, their difference here lies in their focus on societal processes, persistent problems, fundamental change, and innovation as well as their normative direction (i.e., sustainability) (Frantzeskaki et al. 2012b; Loorbach 2010).

This framework has been used as a heuristic in cities to understand and interpret ongoing governance processes. By way of example, Frantzeskaki et al. (2014a) have been using the different governance levels as part of a mapping framework, which they developed to examine the governance imprint of urban partnerships in the redevelopment of the former Rotterdam City Port area along two axes: their impact in terms of synergies and the governance role they adopt. The framework makes it possible to identify agency patterns at different levels: the way these influence and interact with their broader context (i.e., the status quo) and add up to generate movement into a certain direction. From this perspective, each type of governance activity has distinguishable forms of agency, instruments, processes, and organisational logics. The authors conclude that actively seeking to engage with existing forms of transition governance through systematic intervention strategies supports influencing and accelerating transitions. Two contributions of this volume also use the levels of governance activity to reflect on (1) the value of an operational transition management envisioning process (Frantzeskaki and Tefrati 2016, Chap. 4, this volume) and (2) the transition governance activities in Higashiomori and especially the importance of the reflexive activities in realising a multi-niche innovation (Mizuguchi et al. 2016, Chap. 5, this volume).

### 2.3.3 *Transition Management Instruments*

This transition management framework (i.e., the transition management cycle) also connects a number of instruments to each of the governance levels. The cyclical nature of the framework implies that strategic-level activities are followed by tactical and operational instruments and closing the cycle with reflexive ones. However, the cycle has to be understood as iterative (Loorbach 2010); activities can be started at each of the governance levels, thus on the operational level rather than on the strategic level, for example (Van den Bosch 2010), and can run in parallel (Wittmayer et al. 2014a). Thus, the activities and instruments interact more than is implied by the following presentation.

On a strategic governance level, the so-called transition arena has been developed as a process instrument to develop a new narrative and discourse to frame and guide sustainability transitions; this is simultaneously referred to as a setting as well as a “*small network of frontrunners with different backgrounds*” (Loorbach 2010, p. 173). Frontrunners are selected based on their diverse societal values and perspectives and on the alternatives that they offer in terms of ideas, practices, or social relationships with regard to the status quo (Wittmayer et al. 2011). The perspectives of the frontrunners are subsequently confronted and possibly integrated in a participatory learning process (van Buuren and Loorbach 2009). A substantive outcome of the process is a transition narrative for the city, which consists of (a) a shared integral problem statement outlining the need for a transition, (b) a novel future perspective including sustainability criteria, and (c) transition images and pathways. This narrative plays into existing dynamics and discourses and creates alternative futures and discourses aimed at influencing the direction of change. The underlying idea is that this narrative inspires and motivates social innovation and creates a broader movement (Loorbach 2007). In addition, the process of producing the narrative should lead to social and second-order learning, through which participants (i.e., frontrunners) are encouraged to engage in tactical and operational activities, as outlined next.

Tactical governance activities include, for example, dividing the transition narrative in achievable steps or a roadmap, the *transition agenda*. Activities include the exploration of structural barriers through transition scenarios (Sondeijker 2009) or backcasting (Quist et al. 2011, 2013). Backcasting leads to the exploration and framing of specific transition pathways, which are further developed through negotiation, collaboration, and coalition building (Frantzeskaki et al. 2012b). *Transition experiments*, which are considered instruments at operational governance level, are aimed at learning about putting the narrative into practice, possibly along a certain transition pathway. This placement can take place either through conceiving of new alternatives realised through a project structure, or through broadening, deepening, and scaling up existing and planned initiatives and actions (Van den Bosch and Rotmans 2008). As opposed to a regular project, a transition experiment is an “*innovation project with a societal challenge as a starting point for learning aimed at contributing to a transition*” (Van den Bosch 2010, p. 58). Reflexive

governance activities take place throughout to evaluate and monitor the transition process and the various levels and their interrelationships as well as the transition management framework itself: this is the reflection part where changes in the urban fabric and dynamic become registered, existing tools are adapted, and new insights are formulated. *Transition monitoring* not only aims at gathering data but also includes intervention on the basis of these data (Taanman 2014).

These instruments have been translated for the urban context in the concept of ‘Urban Transition Labs’ (Nevens et al. 2013). Inspired by the transdisciplinary living labs approach, the authors “*consider an Urban Transition Lab as the locus within a city where (global) persistent problems are translated to the specific characteristics of the city and where multiple transitions interact across domains, shift scales of operation and impact multiple domains simultaneously (e.g. energy, mobility, built environment, food, ecosystems). It is a hybrid, flexible and transdisciplinary platform that provides space and time for learning, reflection and development of alternative solutions that are not self-evident in a regime context*” (Nevens et al. 2013, p. 115). This approach promises the creation of a systems thinking mindset, a strategic agenda and related short-term actions, space, and empowerment starting from selective participation, as well as a setting of learning (Nevens and Roorda 2014).

The instruments and the underlying principles of transition management have inspired different developments. By way of example, the City of The Hague, The Netherlands experimented with a new kind of subsidy scheme for creating a climate movement in the city (Avelino et al. 2011; Wittmayer 2014). Also, the Japanese “*Future City*” Initiative has been inspired by the transition management approach (see Wittmayer et al. 2016, Chap. 3, this volume). The transition arena process has also been used heuristically. Analysing a historical transition to improved stormwater quality treatment in Melbourne, Brown et al. (2013) reflect on the implications and lessons for transition management. One is that the main focus of transition management to date has been on the predevelopment phase of transitions with its focus on empowering frontrunners and niches (i.e., the transition arena process), whereas the acceleration phase of transitions might need a different focus and a better understanding of the institutional and policy context. Based on his work in a non-urban context—Dutch agriculture—Grin (2012) supports this conclusion regarding the role of frontrunners as helpful in accelerating developments but not sufficient; a larger group is needed to gain mass. More generally, not all scholars agree with a focus on selective participation of frontrunners, framing it as an ‘elite group’ (Smith and Stirling 2010), pointing to its legitimacy deficits (Hendriks 2009), and suggesting it as a problematic framing of an “*enlightened*” type of person (Jhagroe and van Steenberghe 2014, p. 2).

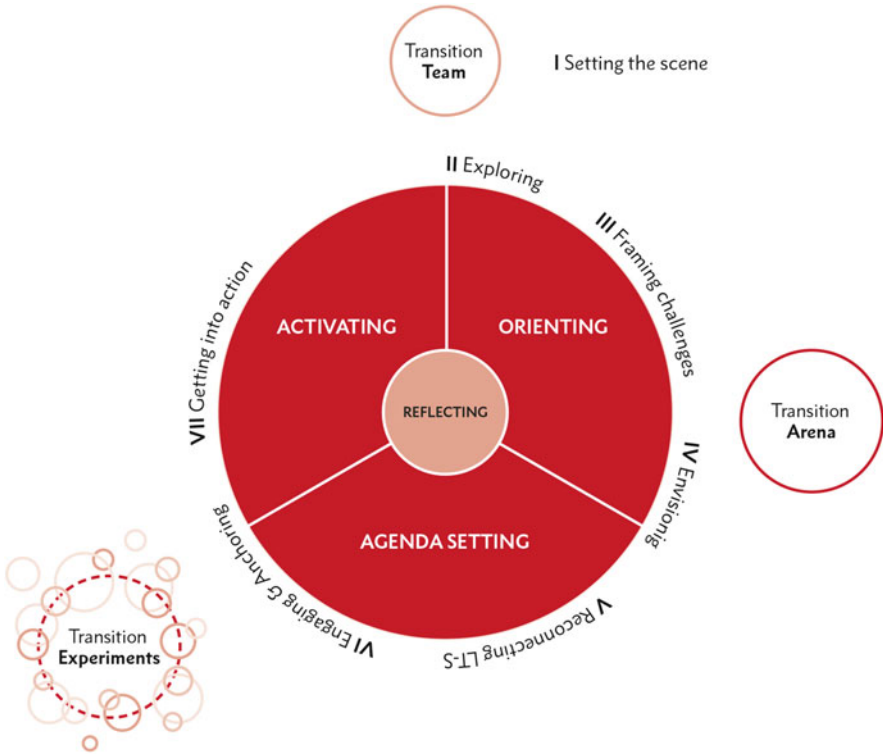
### 2.3.4 Transition Management Process Methodologies

Recent years have seen an adaptation of the framework and the instruments for the urban context in process methodologies or guidelines to be used either by (action) researchers (Wittmayer et al. 2011; Frantzeskaki et al. 2012a) or by local governments (Roorda et al. 2014) to implement a transition management approach in cities. In drawing up process methodologies for different ‘target groups’ (researchers, policy makers), different urban contexts (neighbourhoods, towns, cities), as well as different national contexts (different countries in Europe, Australia), the understanding of operational transition management has diversified (in terms of numbers of phases, levels of detail, attention to ethics, etc.). Although these process methodologies are far more specific and detailed in terms of process description than other transition management accounts, they still do not provide a clear-cut recipe: they need translation and adaptation to the specific transition challenges and questions in the urban context (Nevens et al. 2013; Wittmayer et al. 2014b).

By way of example, we turn to Roorda et al. (2014), who operationalised transition management into a process methodology for urban policy makers aiming for climate mitigation in their cities (Fig. 2.2). This specific process methodology has been developed in close collaboration between researchers and policy makers and was implemented in five European cities focussing on climate mitigation as part of the EU Interreg-funded MUSIC project (2010–2015) (see Wittmayer et al. 2016, Chap. 3, this volume). The process methodology distinguishes between different types of interventions that urban policymakers might use to influence the future of their city. It then outlines the different transition management instruments available for each of these more generic intervention types (see Fig. 2.2).

- Interventions aimed at *orienting* focus on positioning the city vis-à-vis societal developments and the municipality vis-à-vis other actors over time. Transition management instruments include, amongst others, system and actor analysis.
- Interventions aimed at *agenda-setting* focus on tactical governance activities in terms of integrating different agendas and practices and creating a sense of shared ownership and ambition for a sustainable future. Transition management instruments include, amongst others, transition agenda.
- *Activating* interventions focus on practices and setting up projects and experiments. Transition management instruments include transition experiments.
- Finally, interventions aimed at *reflecting* include the focus on supporting and enabling societal learning processes through both experience and cognitive engagement. Transition management instruments include transition experiments, monitoring, and evaluation.

The process methodology divides the intervention process into a number of phases, namely: (1) setting the scene for transition management, (2) exploring local dynamics, (3) framing the transition challenge, (4) envisioning a sustainable city, (5) reconnecting long term and short term, (6) engaging and anchoring, and



**Fig. 2.2** The transition management process structure (from Roorda et al. 2014, p. 14)

(7) getting into action. These phases in turn are related to different settings or actors that foster interaction and focus on the emergence of alternative ideas, practices, and social relations; as such, it is an apt methodology for the predevelopment phase of transitions. The transition team, the transition arena, and the transition experiments (see Fig. 2.2) can be considered as actors and settings simultaneously. The transition team is a setting in which different individuals, such as urban policy makers, possibly specific actors from the city or transition experts, come together to negotiate the actual framing and embedding of the transition management instruments in the current (power and policy) context. As actor, the team is preparing and leading the actual transition management process. The transition arena simultaneously is the actor that is drawing up a new transition narrative and roadmap for the sustainable future of the city and the setting in which the urban frontrunners are negotiating this very future and agenda. In the same vein, the transition experiments are the actors that are practically addressing the societal challenges identified and consist of different frontrunners and stakeholders who experience the actual barriers and drivers for change by ‘practising the transition.’

In the more operational applications of transition management, these process methodologies have been put into practice to organize contextualised transition

management processes in cities, towns, and neighbourhoods (Nevens and Roorda 2014; Roorda and Wittmayer 2014; Wittmayer et al. 2013, 2014a, b; Ferguson et al. 2013; Frantzeskaki and Tefrati 2016, Chap. 4, this volume; Hölscher et al. 2016, Chap. 6, this volume; Krauz 2016, Chap. 8, this volume). Most of these accounts show that a transition management approach does not hold “*a silver bullet solution for actually realizing ambitious sustainability objectives*” (Nevens and Roorda 2014, p. 120). Nevertheless, transition management does provide an action impetus and more intangible outcomes in terms of practising collaborative governance and system thinking (Nevens and Roorda 2014), and it holds promises with regard to creating space for alternative ideas, practices, and social relationships (Wittmayer et al. 2014a; Roorda et al. 2014).

Many of the writings on these transdisciplinary operational processes witness the engagement of their authors with the earlier mentioned challenges of transition management in terms of the normative aim of sustainability (Wittmayer et al. 2014a), dis/empowerment dynamics (Hölscher et al. 2016, Chap. 6, this volume), the role of visioning (Frantzeskaki and Tefrati 2016, Chap. 4, this volume), or with regard to local power relationships (Krauz 2016, Chap. 8, this volume). Transition management processes in cities have shown that spaces for interaction can be created indeed, but that assuming that these are power-free spaces would be naïve. Especially when such a process is organised by a municipality, the risk is high that participants retreat to accustomed social roles and relations (Roorda and Wittmayer 2014). If a municipality usually relates to its citizens through public participation processes focussing on consultation, then a first step of a transition management-based process is to problematise the expectations towards one another. A necessary part of such a process is the experimentation with different expressions and meanings of social roles and relations (Wittmayer and van Steenberg 2014; Wittmayer et al. 2014b). In this line, recent writings also show critical reflexivity in relationship to the roles of researchers in such processes (Wittmayer et al. 2014a; Wittmayer and Schäpke 2014).

Next to operational applications, we can see the process methodologies also being used as an analytical frame (i.e., heuristic application) to analyse existing governance dynamics. Shiroyama and Kajiki (2016, Chap. 7, this volume) use the operational framework by Roorda et al. (2014) to analyse the transition of the city Kitakyushu from an industrial to a green city by identifying transition arena, transition team, and transition experiment as settings and actors in this historical transition process.

## 2.4 Promises and Challenges of Governing Sustainability Transitions in Cities, Towns, and Neighbourhoods

Although applying transition management heuristically to cities and their governance does yield promising insights, such as with regard to the understanding of multi-actor governance processes, the nestedness of different geographic scales,

and types of actors as well as the interrelatedness of developments in different domains, to date, most applications in the urban context have been operational applications of prescriptive process methodologies. In this section, we therefore first focus on synthesising the promises and challenges of transition management in cities for the more widely used operational applications (Sect. 2.4.1) before we focus on the characteristics of the urban context and its meaning for both heuristic and operational transition management processes (Sect. 2.4.2).

### **2.4.1 Promises and Challenges for Operational Applications of Transition Management**

Transition management in the urban context is not a univocal success story, as outlined earlier. It is an approach in development. Considering that long-term transformation of any system “*will prove to be a messy, conflictual, and highly disjointed process*” (Meadowcroft 2009, p. 323), transition management in cities should not be considered a tool box or silver bullet, but rather an “*exploration of a new city governance approach for the co-creation of innovative pathways and processes in a strongly reflexive manner*” (Nevens et al. 2013, p. 121). Overall, challenges for operational transition management are related to the contextualisation of the approach to a specific societal challenge, actor constellation, place, and time; the fit with policy-making and decision-making institutions, as well as ongoing dynamics and developments; holding on to the radical character (i.e., directed at fundamental change); the importance of reflexivity and a space for learning, attention to politics and power relationships; and the degree to which sustainable development as the long-term normative goal can be made meaningful locally (see Nevens and Roorda 2014; Wittmayer et al. 2014a, 2015, 2016; Roorda and Wittmayer 2014).

Roorda et al. (2014) outline three promises of transition management in the context of urban climate governance; namely, it holds the potential to provide (1) a sense of direction for the city, (2) an impulse for local change, and (3) collective empowerment as it enables actors to address challenges and seize opportunities. Complementing ongoing regular policy processes and arenas as well as broader social movements and dynamics, operational applications of transition management create interactive spaces for *alternative ideas, practices, and social relations* in transdisciplinary settings (Wittmayer et al. 2014a), which have the potential to shift existing structures, cultures, and practices or ‘transitionise’ existing policies over time. In the following we use the distinction between impacts in terms of ideas, practices, and social relations to discuss the promises and challenges of operational applications of transition management.

Alternative *ideas* refer to a reframing of the actual challenges, alternative long-term directions, imaginations of the future, new discourses, and narratives through which actors involved gain a sense of urgency and the feeling that the impossible becomes possible. These new ideas and knowledge emerge through mutual and

deep exchange, confrontation of opposing perspectives, and interaction of people from diverse backgrounds. Especially, the creation of alternative narratives can be seen as practising agency that opens up to the “*hypothetical, the possible, and the actual*” (Brockmeier 2009, p. 228). Through engaging in the creation of narratives and alternative futures, we “*undermine cultural norms and restrictions. It demonstrates that the mind interprets meanings as possibilities of action that reach beyond its own limits*” (ibid.). The challenge in engaging in a process of visioning or idea generation is the balance between opening up and fostering their plurality and diversity and closing down this process towards the convergence of a shared, albeit plural, notion of the future, for example, through the notion of a ‘basket of future images’ (cf. Stirling 2008).

In addition to probing what is possible through imagination, transition management is about creating space to *practising* alternatives—putting the imagination into action, done through projects, experimentation, and transformative action. There are manifold examples of best practises out there. The idea of experimentation is different: it is not about reading what others have done and copying it one-by-one, rather it is about defining a societal challenge and a way to address it through experimentation with a focus on learning by doing in a multi-actor setting. By engaging in action, actors learn about and find ways to address structural barriers as well as shape their future images (Van den Bosch 2010; Taanman et al. 2012).

In theory, no one actor is seen to be in the driving seat, or actually ‘managing’ a transition, which sets transition management aside, for example, from Local Agenda 21 processes, where more often than not the local government is in the lead and other actors in the urban society are invited to take part. In contrast, transition management aims to facilitate a joint societal searching and learning process in which ongoing actions by a range of actors are taken as a starting point to build new collaborative transition networks. As such, transition management opens a way to question and experiment with alternative *social relations*, such as between local governments and citizens, or between citizens and businesses. Policy institutions are both subject and object of transition governance: they can be important subjects in driving transition governance through their involvement and are also the object of transition as they are likely to change and gain a new understanding of their role and relationship to other actors. The emergence of new actors, such as the transition arena or follow-up networks, also questions and challenges the existing social fabric and local governance setting (Krauz 2016, Chap. 8, this volume); this immediately ties in with challenges and questions with regard to the kind of relations, the power, politics, norms, and ethics involved, as outlined earlier. Who is driving the process, with which agenda, and to what end? How does the process relate to incumbent actors? More often than not researchers have been involved in different capacities, which asks for reflexivity with regard to the different roles that a researcher might use in operational applications (Wittmayer and Schöpke 2014) and with regard to assumptions and frameworks used as well as specific ethical and scientific quality criteria.

### 2.4.2 *The Urban Context and Transition Management*

Referring back to the characteristics of the urban context outlined earlier (see Table 2.1), we discuss these here in terms of their meaning for operational and heuristic applications of transition management.

- *Geographic proximity*: In cities, the spatial distances between actors are usually shorter than, for example, in regions or nations. Actors in cities are physically closer to each other and share a certain geographically bounded area. As put by Boschma (2005, p. 59) “*Short distances bring people together, favour information contacts and facilitate the exchange of tacit knowledge.*” For operational transition management processes, this means that being located in a city and being about a city (rather than about a ‘national energy system’) can increase identification with the area and create a shared purpose. There is also the risk of reifying administrative boundaries in delineating a system; for example, neighbourhood boundaries might not be recognised by actors (e.g., inhabitants) as such or might be an illogical confinement of inputs, activities, and impacts (cf. Wittmayer et al. 2013). Therefore, taking account of the construction of scale, to which we turn now, is important.
- *Multiscalar interaction*: Understanding cities as nested means that transition management applications, whether heuristic or operational, need to take multiscalar interactions into account. These scales can be national or international, neighbourhood or street, or any other geographic scale that is considered relevant. The city and ‘its’ actors actively construct relevant scales and interact with these in ways that support them in achieving their goals (cf. Coenen et al. 2012). Through transition governance applications we can analyse this interaction as a two-way street and as such play into it. Cities may, for example, refer to EU-level strategies (e.g., Europe 2020) or EU-wide covenants (e.g., Covenant of Mayors), to further their own ambition of CO<sub>2</sub> reduction, bypassing national governance. Through their construction and interpretation of and reaction to certain events (such as budget cuts) cities can be inspiring other cities but also initiate new legislation on the national or international level.
- *Multi-domain interaction*: Taking a place-based system delineation involves that transition governance activities are not only taking account of changes in one domain, rather it is in actual places where changes in different domains (energy, mobility, water, ...) come together and interact. As such, a place-based approach to transitions involves the multitude of dynamics between different domains in a specific place, increasing the complexity of the task at hand, but also providing numerous points of leverage. Working on CO<sub>2</sub> reductions means that the process will focus not only on issues of energy provision and production but rather, in the process of problem framing and future visioning, have a broad and integral perspective that also encompasses issues in domains such as mobility, water, lifestyle, and tourism.

- *Personal proximity*: relates to the concept of social proximity (Boschma 2005): Cities, towns, and neighbourhoods are also environments in which people live, love, rage, or die. It is people in their roles as *inhabitants, fathers, mothers, or engaged neighbours* who become actors in transition governance activities, rather than (only) as *professionals* as is the case in many transition management processes in functional systems. People are involved in different roles and have clear personal, emotional, and social stakes as well as trust relationships: they live in the city, raise their children there, or cheer for the local football club—all these relationships are embedded and come with certain expectations and responsibilities. This definition makes urban transition management a collective endeavour of people striving for sustainable development in their own living environment and brings powerstruggles and the search for new roles and relations very close to the individual and his or her homestead.
- *Institutional proximity*: refers to proximity that originates in shared formal and informal institutions including laws and rules as well as cultural norms and habits (Boschma 2005). For certain issues, there might be a high extent of institutional proximity within a city (e.g., formalised governance processes), whereas for other issues this might be lower (e.g., if the city's population is composed of people from different national or cultural backgrounds). Transition management activities aim at changing institutional structures, cultures, and practices (Frantzeskaki et al. 2012b), and as such are working on creating new institutional proximity. In doing so, they work at the fringes of existing institutions (cf. Coenen et al. 2012).

## 2.5 Conclusion

The transition management-based analysis and interventions over the past years, including those described in this volume, have led to a more systemic, contextual, and effective way to develop alternative ideas, practices, and social relations. As a counterbalance to optimisation of existing systems, transition management thus aids in strengthening alternative dynamics and empowering actors to seek to change existing unsustainable systems. In the light of the changing contexts and dynamics and as actual transitions accelerate, it is increasingly evident that new and additional governance mechanisms need to be developed (Loorbach 2014). In contexts where the need or desirability of transitions is no longer an issue, alternatives are rapidly diffusing and incumbent regimes are fragmenting, adapting, and eroding. This pivotal point is where new forms of top-down and formal policy are needed to help institutionalize new rules that emerge, as well as to stop investment in and work on unsustainable development. Especially, this latter point relates to the necessity of breaking down barriers and unsustainable practices in a more or less systematic way. As local renewable energy production becomes superior to centralised fossil fuel-based energy, policy at a certain point needs to phase out (its dependence on tax income from) fossil energy, creating a new norm—which

then puts power issues centre stage. A challenge for the coming decade, it seems now, is to understand, analyse, and create breakthroughs in existing power structures by interlinking change-inclined regime members to emergent new power structures, next to developing alternatives and countermovements.

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