

Linda Carton
Melika Levelt
Ferry Van Kann

Introduction

In the 21st century, is 'spatial planning'
in need of a rethinking and redefinition?

Date of publication:

October 31th, 2025

DOI-code:

10.17418/TIP.2025.ART.01

Copyrights:

Creative commons.
CC BY-NC-SA 3.0 NL.
for explanation, see
<https://creativecommons.org/licenses/by-nc-sa/3.0/nl/>

Contact information of the corresponding author:

- **Dr.ir. Linda Carton**
Department of Geogragphy, Planning and Environment
Radboud University, Institute for Management Research
Elinor Ostrom Building, Heyendaalseweg 141, 6525 AJ Nijmegen
NETHERLANDS
Website: www.ru.nl/en/people/carton-l
Email: linda.carton@ru.nl
Tel: +31 (0)6 2454 8646
ORCID: 0009-0003-3243-2553
- **Dr. Melika Levelt**
Amsterdam University of Applied Sciences, Faculty of Technology
Rhijnspoorplein 2, 1091 GC Amsterdam
NETHERLANDS
Website: <https://research.hva.nl/en/persons/melika-levelt/>
Email: m.levelt@hva.nl
Tel: +31 (0)6 2115 6213
- **Dr. Ferry van Kann**
Department Spatial Planning and Environment,
Faculty of Spatial Sciences, University of Groningen
Landleven 1, 9747 AD Groningen
NETHERLANDS
Website: www.rug.nl/staff/f.m.g.van.kann/
Email: f.m.g.van.kann@rug.nl
Tel: +31 (0) 6 4213 5403

Biographical notes

Linda Carton is an assistant professor of spatial planning at Radboud University in Nijmegen. Her research and teaching focus on participatory planning for sustainable cities and regions in the context of climate change. During the "Smart Emission" project (2015–2022), she engaged in citizen science with residents of Nijmegen. Using science-based methods such as GIS, scenario design and gaming simulation, she aims to integrate insights drawn from collaborative governance and transdisciplinary action research in contemporary spatial planning projects.

Melika Levelt is senior researcher and associate lecturer of Logistics and Urban Technology at Amsterdam University of Applied Sciences. Trained as an economic geographer her research interests have broadened towards governance and co-creation for sustainable cities with projects on logistics and spatial planning for the food sector and the circular economy.

Ferry van Kann is an Assistant Professor Environmental Planning at the University of Groningen. He is interested in how spatial planning can support the energy transition while making places better together.

>> Introduction of the book Transitions in Planning

Challenges of the 21st century for Dutch spatial planning
research and education

Carton, Linda
Levelt, Melika
Van Kann, Ferry

SUMMARY

>> In the 21st century, is 'spatial planning' in need of a rethinking and redefinition? This question has been the starting point for this book. Cities and urban regions are growing into urban networks where more than half of the human population lives, occupying more landscape than ever before. Meanwhile, climate change requires an energy transition and adaptation of the urban and regional fabric. What does this mean for spatial planning? How can or should we, as planning professionals, navigate in this new reality? What research is needed, and what planning education is needed to understand the changes and their consequences? This book, consisting of a series of essays, is an attempt to shed light on these issues. We do so by focusing on the Netherlands. The main question of the book is: How do the challenges of today's world manifest in the transitions occurring within Dutch spatial planning, and what are the implications of these transitions for Dutch planning education, research, and practice?

The introduction chapter introduces the concept of transitions and gives a brief description how this concept developed in academic literature. A few resonating lines of thinking between transitions theory and spatial planning theory are identified. Both transition and spatial planning researchers aim for the same goals: both are working towards purposive, systemic, long-term, vision-led change. Both fields have been criticised for having a technical-analytic bias. Three levels of transition research are distinguished, to provide structure how the various 'transitions in planning' are studied by spatial planning scholars. The separate book chapters illustrate a diversity of transitions, in physical domains such as water, housing, and energy, in the legal domain with the implementation of the Dutch Environment and Spatial Planning Act ('Omgevingswet'), but also in 'softer' aspects of spatial planning, such as the cultural heterogeneity of neighbourhoods in cities, or the development of 'participation' in Dutch urban planning, or developments in planning education. In the 21st century, is 'spatial planning' in need of a rethinking and redefinition? We hope that this book offers part of an answer.

Key words: transitions research, spatial planning, the Netherlands, planning education, cities, urban regions

1 INTRODUCTION: TUMULTUOUS TIMES FOR SPATIAL PLANNING

>> In the 21st century, is 'spatial planning' in need of a rethinking and redefinition? This question has been the starting point for this book. The question has been inspired by changes in the context, object, and process of planning (Witte & Hartmann, 2022) that are now taking place. Artificial intelligence (AI), high-tech and social media change the way people live, work, and meet each other; the dynamics and growth of cities and urbanising regions on a global scale are unprecedented in terms of population, territory, resource flows, and capital accumulation. Cities and urban regions have grown into urban networks where more than half of the human population lives and works, occupying more landscape than ever before (United Nations, Department of Economic and Social Affairs, Population Division, 2015). Climate change requires an energy transition and adaptation to climatic changes. Environmental pollution, biodiversity loss, and degradation of agricultural lands further alter the landscape. It seems as if cities are getting busier and bigger, while the countryside is becoming emptier and seen as more peripheral. The challenges are not entirely new, nor is the thinking about planning practice (Nadin et al., 2020). However, as the effects of all these challenges are now filling our news channels, the institutions and procedures to solve these problems, such as democratic decision making, consensus building, the rule of law, and state autonomy, are more than ever under pressure. What does this mean for spatial planning? How can or should we, as planning professionals, navigate in this new reality? What research is needed, and what planning education is needed to understand the changes and their consequences? What new perspectives for planning practice are provided? In this area of big challenges and changes in context, object, and process of planning, how does spatial planning as a field renew itself? What does 'spatial planning' as a field of expertise have to offer for the exploration, design, development, governance, and protection of collective values of 'quality of living' in cities, regions, and territories, for housing in particular and landscape quality in general? How can communities, municipalities, and provinces make future plans and care for their "commons" in a healthy, safe, sustainable environment? This book, consisting of a series of essays, is an attempt to shed light on these issues and spark a discussion among researchers and educators. We do so by focusing on the Netherlands.

The main question of the book is:

How do the challenges of today's world manifest in the transitions occurring within Dutch spatial planning, and what are the implications of these transitions for Dutch planning education, research, and practice?

The assumption underlying this book is the following. In this period of sudden shocks and rapid shifts, which appear more characteristics of 'radical change' and 'revolutionary developments' than 'evolutionary growth', we need to have

ongoing debates about spatial planning not only in a descriptive sense, that is, about the changes that take place (e.g., Haghani et al., 2023; Nadin et al., 2020) or about what the best solution is for a certain challenge (e.g., Klinenberg, 2018; Monocle, 2024; Moreno, 2024) – although these discussions are necessary and useful. We also need discussions about what these changes and insights mean for our activities as planning professionals, planning teachers, and planning researchers. We need to ask ourselves questions to rethink what spatial planning means in a changed context.

A definition of spatial planning

In this book, we use the term spatial planning to refer to our field of research. According to Baker (2014), spatial planning is a term commonly used to cover public policy intervention related to the ordering and regulation of land use in an efficient, sustainable, and ethical way. There are numerous academic- and practice-based definitions of spatial planning, and these are, to some extent, context-specific, varying between different countries and jurisdictions, with several synonymous terms, e.g., land use planning, physical planning, urban planning, town and country planning, and regional planning. Spatial planning is usually seen as a broad concept, integrating the spatial aspects and consequences of a wide range of economic, social, and environmental factors at different spatial scales. We define spatial planning as: “purposive strategic activities to align individual and collective actions, this way governing and coordinating the development, building, renovation and improvement of landscapes and physical infrastructures, built-up areas, neighbourhoods, cities, regions and urban/rural places on various spatial scales.” The type of activities include, for instance: agenda-setting; vision-making; strategy formation; imagining, designing and anticipating alternative future scenarios; visualisation of pathways for change with a territorial dimension; ex-ante evaluation of impacts and consequences; deliberating and communicating alternative spatial plans; and forming strategic coalitions around specific discourses that advocate a particular policy or spatial decision, often a desired or resisted public policy intervention. The goal of spatial planning is “to explore, design, develop, maintain and protect collective values of living quality – especially by housing – and landscape quality in cities, regions and territories in general, within a healthy, safe, sustainable environment” (based on Carton, 2018). While editing this book, we have discussed whether we would use the term ‘spatial planning’ or ‘urban and regional planning,’ a term more common in the United Kingdom. We have decided to use ‘spatial planning’ in this book, as this is most literally translated from the Dutch term “planologie” (see also Witte & Hartmann, 2022).

Case studies focusing on the Netherlands

The Netherlands, as a small and highly densely populated country, serves as a backdrop for the changes we see. The country is one of the most densely populated countries in the world, lying in a flood-prone area with regard to climate

change, and dealing with dynamics in Europe and the rest of the world through an open trade economy with its large port connections. Many of the contemporary challenges faced by cities in the world today have been felt as pressing issues in the low-lying country of the Netherlands for some time. The history of large-scale challenges and determined collaboration has given the planning culture in the Netherlands a certain mentality and a known reputation in the rest of the world. There is a saying, “God created the earth, but the Dutch created the Netherlands.” As its ‘spatial planning’ is recognized in the world as a guiding beacon during the post-World-War-II period (Faludi & Van der Valk, 1994), it is interesting to see how ‘Dutch spatial planning’ is transforming in the twenty-first century. With a new Environment and Planning Act that integrates many old regulations into one new, coherent legal framework in 2024, the Dutch planners are trying to make the country more flexible and robust in facing and dealing with future planning challenges. Could spatial planning, as it is practised and struggled with at present, still serve as an example for other parts of the world? Or is it losing itself in lock-in processes, deadlock situations, and endless deliberations? Is the current profession of planners working in practice paralysed by the proportionality of current challenges? We aim to address a number of Dutch case studies in this book, to reflect on the current professional, educational, and academic practices of spatial planning at Dutch universities. We want to share the current advancements, new ideas, innovative practices, and empirical observations with interested spatial planning scholars, both in and outside the Netherlands. This book takes the Netherlands as an example and starting point for a reflection on how the challenges of today’s world manifest in spatial planning and the implications of these transitions for planning education, research, and practice.

Reading guide

In Section 1.2, the concept of transitions is explained from academic theory. A definition of ‘transitions’ and a description of ‘transition management’ is given, and a few key-concepts are explained with reference to well-known scholars on this topic. Resonant lines of thought between transition theory and the way planners think are identified, for example that both planning and transition researchers are inherently focused on (people creating) a sustainable future.

In Section 1.3, we look in more detail at how the field of spatial planning overlaps with ideas of transition management. Many ideas are not new but have existed in spatial planning as the field has always been centred around changes and interventions in using land, and planning for the long-term future. Vision-making and participatory approaches are profound techniques in the repertoire of spatial planners that have been embraced by transition researchers. Both spatial planning and transition theory have received academic criticism that notions of power, politics, justice, and situated judgement should be

taken into account fully, as opposed to a bias towards a mere technical-analytic rationale.

In Section 1.4, we introduce the three directions in which we have solicited papers for this book, to describe the current state of affairs in spatial planning with various transitions in mind: (1) Transition research that looks at what drives change: what drives change to what extent, why, and how? (2) Transitions research observing what is happening in practice in planning domains, via gradual or more radical patterns of change, and (3) Transitions research reflecting on changes developing in planning systems.

In Section 1.5, we introduce the chapters of this book. Each chapter has its own topic. Chapter 2 focuses on water management and ‘water heritage’, knowledge of how landscapes have been formed historically. Chapter 3 focuses on housing and the meaning and role of participation in city planning. Chapter 4 focuses on the multiculturalist character of today’s urban neighbourhoods and its consequences for planning. Chapter 5 describes the energy transition and emergence of community energy cooperatives and compares this phenomenon among the Netherlands, Portugal, and the UK. Chapter 6 focuses on the new Environment and Spatial Planning Act (‘Omgevingswet’) that has come into force in the Netherlands since January 2024. Chapter 7 discusses the phenomenon of teaching planning to the next generation of planners, reflecting on 25 years of experience with organized ‘planning studios’. Chapter 8 concludes the book with a discussion among Dutch planning professors and a reflection on the various challenges and ends with implications for planning research, education, and practice.

2 THE CONCEPT OF TRANSITIONS

>> Simply put, a transition is “a process of fundamental change in a society’s culture, structures and practices, taking around 25 to 50 years to complete” (Dutch Research Institute for Transitions (DRIFT), 2024). The concept of societal transitions has been studied intensively by Dutch researchers. The ideas of transitions and transition management, or in ecology-oriented fields also called ‘transformative governance,’ are not new. Transition management is described as ‘forward-looking, adaptive, multi-actor governance aimed at long-term transformation processes that offer sustainability benefits.’ In the words of Kemp and Loorbach (2006, p.103):

“Transition management could be viewed as ‘evolutionary governance’ as it is concerned with the functioning of the variation-, selection- and reproduction process at the societal level: creating variety informed by visions of and experiments for sustainability, shaping new pathways and reflexively adapting existing institutional frameworks and regimes. It is a model for

escaping lock-in and moving towards solutions that offer multiple benefits, not just for users but also for society as a whole. It is not an attempt to control the future but an attempt to incorporate normative goals into evolutionary processes in a reflexive manner. Learning, maintaining variety (through portfolio management) and institutional change are important policy aims [of transition management]."

Kemp and Loorbach call transition management 'not an instrument as such, but a new perspective for decision-making and governance.' Transitions come into being by a collaborative sum of small-scale interactions in society, as a form of 'evolutionary governance' in complex adaptive systems. These adaptive systems should be understood in a nested way, with the system being dependent on the self-governing adaptations of its internal agents or elements in response to changes from its context, and vice versa, the overall structure of the 'whole' influences the system behaviour of its parts. Interactions in such complex adaptive systems, as studied in social sciences and life sciences, take place in multi-actor settings on multiple scales, with humans, things and environments being in constant interaction with each other. The multi-actor character makes these systems inherently complex, with limited predictability. The system usually adapts as being in a certain stable state before and after a transition, with an unstable state in between, a so-called *tipping point* (Scheffer, 2009; Haasnoot et al., 2013). In societal transitions, a tipping point might be reached that potentially flips the whole societal, physical or intertwined social-ecological system into a new stable state. Cities are typically seen as complex adaptive systems, with their 'internal dynamics' not only defined by strategic planners but also by the sum of daily behaviours of businesses, citizens, NGO's and so on. In this regard, Judge et al. (2024) speak of social tipping points. Patterns are formed both by (semi-) autonomous decisions of individuals and partly 'steered' by strategies decided upon by planners and policy makers. This creates dynamics both top-down and bottom-up. Theorizing the concept of transition management, a figure with an 'S-curve' is presented (Rotmans, Kemp and van Asselt, 2001) with a change process predominantly visualised as a bottom-up social learning and societal innovation process (for a later extension into an X-curve framework, see Hebinck et al., 2022). According to Rotmans and Verheijden (2021), transitions do not occur when a majority of more than fifty percent has changed their views, attitudes and behavior; twenty-five percent of a population is enough to get things moving; transition processes are typically non-linear. When a new practice is being adopted by a critical mass, laggards of the old vested order or outdated ideas may see themselves pushed into defence.

Transitions theory that builds on systems theory and related theories on 'resilience' have been critiqued for dedicating attention towards finding a 'managerial fix' to problems (Ernstson, 2021) without addressing deeper causes, downplaying struggles of politics and power, dominance of

neoliberalism ideas and deep-seated conflicts about land, knowledge, and decision-making. Ernstson (2021, p.1643): “In a highly unequal world the attention to situated knowledges and comparative thought helps to foreground the long environmental legacies of colonialization, class- and gender-based forms of exploitation, and how scientific ways of knowing have their own biases not easily separated from social and political processes.” As a consequence, Ernstson turned away from systems theory, transitions and resilience theory and draws from disciplines such as environmental history, political ecology, and postcolonial urbanism in his studies of cities and urbanization. According to Ernstson, this shift in approach requires a commitment to relate scientific ways of knowing to place-based struggles and politics, drawing conclusions based on ‘situated ways of knowing’ from the places that are studied.

Resonating lines of thinking between transitions theory and the way planners think

In the period from 2001 to now, many case studies have been described using an evolving and growing body of literature with expanding theory on how transition management and transformative governance can be put in practice. Many transition-oriented researchers have used case studies, focus groups, living labs, have executed participatory observation, or have done action research, and gathered data in various real-world and community settings. It goes too far to present a literature overview here of practical studies where many cases are being studied with a transition lens. Literature reviews, responses to criticism, and research agendas can be found, amongst others, in Geels (2011), Loorbach et al. (2017), Köhler et al. (2019), von Wirth et al. (2019), and many more. What we distill from the various sources are a few common concepts and lines of thinking that resonate well with the way planners think. The goal orientation towards a more sustainable future and emphasis on the need to adapt to new circumstances is something planners often also do: it is a future thinking discipline (Oomen et al., 2021), it resonates with the object of planning. Next, the focus on systems and relations at multiple levels and how they interact in a non-linear, multi-actor process is also familiar to planners. They are part of how planners think about, respectively, the context and process of planning. Tipping points as part of the process are an idea that can also help planners to understand how things may change slowly or not at all at first, and then take off very rapidly (Judge et al., 2024). Overall, we see two predominant lines of thinking with respect to transitions: a normative approach, providing insights to enable better governance, and a descriptive approach, emphasizing unexpected turns, non-linearity, and limited influence by governing arrangements. If we look at spatial planning, then a lot of theory on long-term change has already been present before the topic of transitions became popular. In the next section, we discuss this in more detail.

3 SPATIAL PLANNING AND TRANSITIONS THINKING: WORKING TOWARDS PURPOSEFUL, SYSTEMIC, LONG-TERM, VISION-LED CHANGE

>> Spatial planning researchers aim to explore, study, and assess interventions on the scale of cities and regions. On these scales, the international trade flows and national policies finally materialize on a spatial scale that people experience in their homes and workplaces. As cities (and densely populated regions) serve as knowledge hubs where the number of inventions and innovations is high, and as the places where the 'metabolism' of the majority of human populations is concentrated, this may also be the place where solutions to the problems can be expected. Climate governance research calls the horizontal diffusion of good practices between communities, cities and regions, and the phenomenon of accelerating transitions from the bottom up, 'polycentric governance', in which multiple local actors play a leading role in charting their path to the future, ahead of international and state-led top-down climate policy processes (Jordan et al., 2018; Ostrom, 2010). However, it proves difficult at the level of a city to prioritize issues such as climate and sustainability measures in relation to urgent needs experienced in the short term, like affordable housing. Bulkeley and Betsill (2005) have described how climate policy fails to get off the ground at the city level if it is not supported by forms of multilevel governance. Using case studies of Newcastle upon Tyne and Cambridgeshire in the UK, they analysed 'the politics of urban sustainability' and illustrated the importance of relationships between nested tiers of government and 'spheres of authority', coalitions that advocated specific discourses and interpreted how (local) objectives could be linked to the interests, policy priorities and funding opportunities of broader networks.

In transition literature, attention for self-organisation, emergence, social-technical innovation, diffusion of good practices, multilevel governance, and (re-) configuration of strategic alliances are common threads. These ideas and discourses on transitions have influenced the academic and practical thinking of spatial planning. Spatial planning theory nowadays speaks of the 'bottom-up' character of how new developments emerge and are innovated and improved in niches before a possible scale-up takes place. It is a question for municipalities how to deal with initiatives coming from civil society. This emphasis on the 'bottom-up' aspect in planning, originally coming from innovation sciences, has grown after decades of 'classic' spatial planning theory typically had a dominant focus on how top-down policy objectives, formulated by nation-states, could be made operational and be implemented in regions and cities by regional and local governments. Following De Roo (2012), the ideas of complexity and non-linear complex-adaptive systems, having originated in other disciplines, could be translated to spatial planning, with a role for self-organizing processes, emergence, resilience, and transitions, and with planners as transition managers of change. Complexity and complex adaptive system theory in spatial planning

have been a core topic of one of the thematic working groups within the Association of European Planning Schools (AESOP).

Many case studies and projects executed as action research or in 'urban living labs' have been reported in the field, where the previous theories of transition management or transformative governance are used to observe, understand, explain, and evaluate attempts in local experiments as part of the wider development of societal transition. For example, Ernst et al. (2016) have defined the term 'sustainable urban transformation' as a specific subset of transitions that is specifically relevant for spatial planning. We summarize their definition here to clarify the relevant elements concerning *spatial planning transitions* in cities or regions. Ernst et al. (2016, p. 2988-2989) define sustainable urban transformations as: "**Purposive, systemic, long-term** and **vision-led** economic, social, cultural, organizational, governmental and physical change that *leads to sustainable urban structures and environments.*" This change also leads to "corresponding technologies, markets and institutions, that determine patterns of production and consumption of resources, by long-term oriented governance approaches and flexible, adaptive and reflexive policy designs." Thus, the transitions in planning are accompanied by or create "sustainable market transformations" (Simons & Nijhof, 2020) that take place as a result of purposeful interaction between government, communities, businesses, citizens, NGO's, advocacy groups, knowledge institutes and planners.

How does it work, then, this process of bringing about purposive, systemic, long-term, vision-led change? For working on solutions and inventing new solutions to big societal problems, people need to work together. According to Ernst et al. (2016, p. 2991, Table 3), transition management theory shows that governance steering and the formation of new regimes of governance and adaptive policy designs is best stimulated in open and participatory ways, in "a culture of open participation, co-creation, communication and collaboration by regime and niche actors, local communities and future owners and users." There should be room for experimentation with different solutions and approaches. Residents, as well as key local stakeholders, like universities, businesses, and community groups, should be engaged. The culture should invite key players into a learning process, and should have open character, "not being part of the dominant regime of large companies and (governmental) institutions, but also not being trapped by a counter culture driven niche of grassroots/ bottom-up actors that are not willing and able to leverage on their efforts" (Ernst et al., 2016, p. 2991, Table 3). An interactive process needs to be facilitated purposefully to identify and achieve new constellations and regimes, and co-create visions and strategize transformation pathways.

In the process of transition, dialogue, interaction, learning, adoption, and adaptation are key, with an important role for **vision-making**. Strategy-

making and vision projects offer opportunities to include participants in this transformative pathway to a better future. This role for strategic vision-making, to communicate and imagine a shared idea of a desired (long-term) future, is central in many academic schools of planning. Dixon and Tewdwr-Jones (2021) emphasize the importance of **participatory methods** in transitions or transformative change processes, and point to visions as the vehicle to shape the future of cities (and regions):

“Visions provide us with the means to see the critical issues and challenges that lie ahead, to help fight complacency, and to see how things might be different. As Louis Albrechts (2010: 1123) wrote: ‘Visions provide actors with views of the future that can be shared: a clear sense of direction, a mobilisation of energy, and a sense of being engaged in something important’. This is important in the context of transformative change in cities and how we manage and plan for future change. However, visions need to be a shared view of the future and rely on participatory methods to underpin them.”

For spatial planners, the theory on transitions and sustainable urban transformations thus has many familiar elements. Both fields, transition theory and spatial planning, are inherently interdisciplinary in nature; they draw from various disciplines for frameworks and guiding concepts. They focus on the long term, and to make long-term futures tangible, both fields work with participatory methods and instruments of vision-making to imagine, explore, and assess possible futures, organized in settings of facilitated dialogue with multiple actors. Both fields aim to support the process of governance by providing and triangulating views, ideas, understandings, and experiments, and both fields have the tendency to focus on processes of collaborative governance.

Both fields have been criticised for having a technical-analytic bias. In spatial planning theory, such criticism has been voiced by authors like Campbell (2006), Healey (2006), Fainstein (2010), and Kaika (2017). They have advocated for the inclusion in spatial planning studies of notions of **power, politics, justice, and situated judgment**, and they have warned against considering any dominant discourse as “given” or as the only possible rationale for considering possible actions. They have also warned against superficial “fixes” that can be the result of consensus-building in spatial planning, especially when “the usual suspects” gather around the tables where decision-making takes place. Kaika (2017) has argued that underlying structural inequalities and reinforcing mechanisms that reproduce the dominance of the ‘status quo’ can be better addressed in processes of dissensus, contestation, and resistance than in consensus-building processes. She has called upon researchers not to stick to the existing toolbox of ‘policy, economic, institutional and techno-managerial frameworks’ regarding issues of ‘sustainability’ and ‘resilience’ but to conduct research in practice, to ask different sets of questions, and to learn from citizens

who make ‘painstaking efforts’ to bring about new ownership of commons in the city, with social innovations emerging “when needs are so urgent that citizens are compelled to take on new roles in order to take matters into their own hands” (Kaika, 2017, p.99).

A point where the fields of transitions and planning differ is in their emphasis on either the emergence of bottom-up processes of innovation for transition theory, or the emphasis on the forces of top-down processes in spatial planning. Historically, spatial planning has its roots in theories of governments as the authoritative institutions to make decisions on land and land use. With transition thinking influencing the field of spatial planning, this tendency in spatial planning to look mostly at processes of top-down coordination may now be open for change. In the next section, we describe how we have solicited papers to explore how transitions have influenced spatial planning. We have aimed to collect a variety of papers that together give an idea of the current way of thinking about transitions in planning.

4 THREE DIRECTIONS IN TRANSITION RESEARCH REGARDING SPATIAL PLANNING

>> As editors of InPlanning, we have sent out a call for essays on the topic of ‘transitions in planning’ to collect contributions that represent the current state of affairs in spatial planning with various transitions in mind. To structure this, we have pre-structured three directions in transition research.

(1) **Transition research that looks at what drives change: what drives change to what extent, why, and how?**

These forces fuel societal change. We see at least five different categories of driving forces:

- **Environmental:** A major driving force is climate change. Also, many other forms of pollution nowadays impact the living environment, signalling overexploitation of natural and fossil resources, overproduction of chemical substances, and ‘dumping’ of residuals and emissions in soils, water, and air.
- **Demographic:** Since the field of spatial planning exists, demographic forecasting has been a relevant dimension to plan ahead for investments in housing, infrastructure, and services. New developments in demographics arise with an increased level of international migration.
- **Technological:** Technological innovation has its consequences in daily life. Online platforms provide commercial services, especially in cities, and allocate food, mobility services, apartments for short stays, etc., everywhere, anytime, with examples such as ‘digital twins’ being developed by technology providers for local governments, shared cars/

bikes/ mobility services for just-in-time arranging transport on demand or working online from home or far away (digital nomads).

- **Economic:** In a globalized world, tensions arise between globalization and localization of resources of production in terms of capital, labour, goods, and services. Discussions about 'free markets', 'neoliberalism', 'no growth', 'ecological economics', and 'spatial justice' reflect different perspectives on access to resources, of which land is an important one. Discourses that emphasize the virtues of justice and ecological integrity challenge the dominant economic paradigm, stressing that basic needs such as housing, food, healthcare and a healthy environment, education, nature, time, and community are not 'commodities' and should not be treated as market products. New social movements have risen around themes like climate action, inequity, housing, land tenure, energy, and agriculture. Self-organising in community cooperatives is seen as a solution. How is spatial planning influenced by these changes in society?
- **Democratic:** Democratic elections have become more polarised by the rise of populism and the rise of 'far-left or right' parties in politics, with social media as a new channel for amplifying ideas outside the mainstream media, with fewer guarantees of checks and balances. At the same time, successive national governments in the Netherlands have 'delegated' the power to make policy to regional and local levels, as a result of which the mandate has de facto been decentralised from the national level to the regional and local level. What does this mean for spatial planning?

(2) Transitions research observing what is happening in **practice** in planning domains, via gradual or more radical patterns of change

In each sectoral domain, we can distinguish between smaller developments that can be referred to as *optimisations* (step-by-step improvements) or more *radical alternatives* (e.g., post-growth cities and regions, transformative approaches, third-order loop learning). Here are three examples of gradual or more radical types of transitions:

- In terms of **housing** construction and **energy** for heating homes (important in the Dutch winters), a step-by-step improvement of the existing housing stock would be to insulate houses so that they consume less gas, a radical alternative would be to remove the gas connection and renovate the houses to be heated and cooled by other, renewable technologies, such as 'all-electric' solutions using solar panels, boilers and heat pumps; Or to implement a collective solution such as a heat network.
- In the areas of **mobility, transport, and infrastructure**, smaller optimizations would be the expansion of existing infrastructure, a more radical change would be to shift investments from the construction of new car infrastructure to the creation of a new type of mobility, such as the construction of an interurban network of high-speed cycle paths.

- In **public space**, a moderate step towards more sustainable living would be to convert some parking spaces into greenery so that trees provide more shade and cooling, while a more radical alternative would be to make the roads car-free throughout the district and use the freed-up space to provide space for cyclists, pedestrians, 'urban green-blue infrastructure' (green corridors) and as a playground for young and old.

(3) Transitions research reflecting on changes developing in planning systems

This type of transition research is more procedural and institutional, at a more theoretical or fundamental level. It focuses on the regime level and what is called the 'landscape level' of societies in transition management, rather than on the 'niches' in which experiments are applied. Legal structures and institutionalized cultural practices can be compared across cases, countries, and planning systems. Research at this level often seeks to bridge macro and micro perspectives, with the aim of unravelling fundamental dilemmas and seemingly paradoxical contrasts. Examples of such research into transitions are:

- The implementation of a new legislative framework with the '**Environment and Spatial Planning Act**' (*Omgevingswet*) in the Netherlands. The implementation of this new legal framework, which replaces many older laws, marks a fusion between planning and environmental law and policy.
- The need for **strategic, fundamental change** (long-term goals) versus a political reality and government culture that stimulates an urban management approach (short-term goals).
- Hegemonic neoliberal structures that create **fragmented systems of governance** (Taşan-Kok & Özogul, 2021), and reliance of governments on the private sector for implementing their policies.
- Changes in discourses are perhaps signals that other than liberal values and market dominated thinking gain importance in the societal debates, with emphasis on terms like **community, civil society actors**, the need for interdisciplinary collaboration, transformative governance (Hölscher et al., 2019; Brings et al., 2025) and experimental governance (Potjer, 2019; Hölscher and Frantzeskaki, 2021).

On these three levels of transitions research, we have solicited essays to describe and analyse the status of affairs in spatial planning in the Netherlands, from 2023 to 2025. In addition to essays that reflect research on transitions, we have included a chapter that specifically discusses developments in academic education. In the final chapter, special attention is also paid to the implications for spatial planning education at our academic institutes united in InPlanning. In the next section, we will briefly introduce each chapter.

5 INTRODUCTION TO THE BOOK CHAPTERS

>> The chapters with real-life cases focus on different sectors and facets of planning, ranging from water and cultural heritage to housing and energy. In each chapter, the content of the transition assignment is introduced, the relevant planning process is described, and the case and context are explained. Unfortunately, we were not able to include all the topics and transitions we had in mind. Examples include coastal flood risk and pluvial flooding, manure overload in agricultural and natural areas, or redevelopment of business parks. These are topics we would have liked to address, as they are important issues in the Netherlands. We also did not receive contributions on technological innovations, such as the role of social media in participatory processes, the rise of artificial intelligence (AI), E-planning, advances in geospatial data analysis, data-driven automation and decision-making in smart cities, and other technological shifts impacting spatial planning. As editors, we acknowledge this oversight. Realizing it is impossible to address all dimensions of transitions in a single book, we proudly present here the collection of topics we were able to include. Every chapter in this book has been peer-reviewed by at least two reviewers. Each chapter is briefly discussed below.

Chapter 2 by Joks Janssen and Marijn van Asseldonk focuses on the history of **water management** and transitions in it as a result of transitions in land-use planning. Historically, land-use and water management mainly followed the natural conditions of watercourses and flooding. For example, flooding was used as a way to fertilise arable land. However, after World War Two, land-use became 'rationalised'. From then on, water management was expected to enable the desired use of land, which was not always in line with the local water conditions. Climate change, resulting in more flood risk of rivers and an increase in droughts, makes it necessary to rethink the rationality of this way of land use and water management. The chapter shows how knowledge of the past, i.e., water heritage, can help us to find solutions for current challenges. This is not a one-size-fits-all approach to finding solutions for current issues in water management. This demands a place-specific approach and connections between heritage professionals and water managers, which demands, as the chapter explains, also a transition of heritage professionals from a more static to a more dynamic conceptualisation of water heritage. Thus, water heritage in this chapter might be seen as a tool for vision making, finding keys to long-term solutions by looking back in time.

Chapter 3 by Melika Levelt and Wendy Tan focuses on **housing** while linking it to relevant questions about the meaning and role of **participation** in the process of planning and the capacity of planning to serve the goals of sustainable and just development. The development of 'citizen participation' is described over the last decades, and three illustrative cases in Amsterdam, Almere, and Groningen are used to make the argument that although formally,

citizens have a say in Dutch planning, in practice, it seems like the participation process is often being undermined. This helps to understand what is referred to as a simultaneous increased inclusion and exclusion of citizens in spatial development for housing. A key question is raised: What do we mean by citizen participation? This question is addressed by a reflection on three recent phases in Dutch housing history. The first phase (1945-1970) remembers that technocratic planning is about data and predictions of population growth and considers participation as a way to gather this data and make people accept plans. The second, fundamentally different, phase introduces the crucial role of market forces and citizens as consumers, especially in the domain of housing developments. Although participation in a very light form became a right, the authors clearly illustrate that participation turns into something that is only based on tastes and likes at the end of the process. Finally, the third phase (post-economic crisis in 2008) introduces the clear paradoxical transition of citizen participation in housing developments. This is illustrated with cases in three cities showing that inclusion and (later) exclusion can happen in the same, long run time in which housing developments take place in housing markets where prices and capital keep on playing a strong role. Professional parties with large influence are dominant, and in the warm relations between local governments and project developers, informally, decisions have been shaped behind the scenes before formal participation is started. Therefore, the authors remain critical about how much citizen participation, or maybe only a new tone in citizen participation, has actually removed barriers to housing developments and access to housing.

Chapter 4 by Lennert Werner, Pascal Beckers, and Eva Jongsma focuses on the **multiculturalist character** of today's **urban neighbourhoods** and its consequences for planning. This chapter is critical of the process of planning that fails to cooperate with various minority groups in society in the process of urban transformation. The authors state that despite a growing interest among spatial planning scholars in participatory approaches, these approaches fail to account for the growing urban reality of multicultural societies; they seem to be 'culturally blind'. The essay discusses a case study of urban regeneration in the Bijlmer neighbourhood in Amsterdam. Amsterdam is one of the most culturally diverse cities in the world, housing 172 different nationalities in 2021 (OIS Amsterdam, n.d.a.). Dealing with residents with such a variety of nationalities and backgrounds signifies a new challenge for civil servants when they prepare for urban regeneration. In Dutch planning, it is required to do a participatory planning process when urban transformation processes are carried out with a change in the legal local zoning plans. At present, the literature on intercultural planning is thin, especially regarding decision-making processes of planning. The changed cultural setting in many cities is the basis for a transition needed in participatory planning towards 'intercultural planning', according to the authors. They explore what 'intercultural planning' could look like for the local

government process of preparing an urban regeneration plan. The authors plead for more and better attempts to get to know the opinions of people living in a neighbourhood, especially those who are ‘unreachable’ at the moment. This could be achieved, for instance, with the help of neighbourhood ambassadors. Furthermore, the authors plead for applying an ‘asset-based community development approach’, a theoretical approach that emphasises the existing skills, capacities, ideas, knowledge, know-how, creativity, and other ‘assets’ present in the local community. This chapter shows an example of one of the drivers for change, that of demographics and migration, the emergence of multicultural neighbourhoods, and the need for spatial planners to respond to this altered situation in Dutch cities.

Chapter 5 by Lummina Horlings, Ferry van Kann, and Diogo Soares da Silva describes the **energy transition** and emergence of **community energy cooperatives** (CECs) that are seen as tools for increased awareness of the need for the energy transition and all kinds of benefits for the local community. It examines the spatial planning conditions for energy transitions driven by CECs in different institutional contexts through a comparison of CECs in the Netherlands, Portugal, and the United Kingdom. The essay illustrates how the energy transition entails a transition in the geography and timing of energy production and distribution that results in dilemmas and socio-spatial (mis) matches. Although sustainable energy production offers the potential of decentralised (co-)production and autonomy at the regional and local level, the existing power structures in energy production and distribution and dilemmas ensure that strategic spatial planning remains necessary if renewable energy targets are to be achieved. This planning must consider stakeholders and timing across multiple spatial scales, balancing strategically solving the mismatches with a responsiveness to local characteristics and spatial planning conditions, and creating a supportive institutional context for CECs, including backing from umbrella organisations, expertise, and access to publicly owned land. This chapter, then, is a clear illustration of the importance of the context of planning, multi-scalar processes, and dynamics of competition and cooperation in understanding transitions.

Chapter 6 by Sander van Schagen and Patrick Witte provides a commentary on the new **Environment and Spatial Planning Act** (*‘Omgevingswet’*) that has come into force in the Netherlands since January 2024. At least on paper, this new law marks a fundamental shift regarding the legal part of the Dutch planning system. Their commentary is one of the first ex-post reflections on the planning transitions incorporated into it. Starting with the basics, and a presentation of the six core instruments, distinguishing between ‘the decentralized rules’ with the Environmental Plan (*‘Omgevingsplan’*) as the central element, and five other core instruments. The authors refer to it as a ‘Swiss pocket knife’ that is sometimes considered to improve the toolbox of

planners to accelerate, simplify, and improve spatial development procedures. However, the authors critically question this. The introduction of the principle of 'Balanced Allocation of Functions (ETFAL: *Evenwichtige Toedeling van Functies Aan Locaties*) is new, and explicates the goal of getting towards a more holistic decision-making on spatial functions and environmental assessment. Will this indeed lead to more holistic planning? The authors describe how, on a procedural level, the way of working for employees changes with the application of new rules and instruments. But on a fundamental level, the considerations for deciding on a balanced allocation of functions to locations remain a key challenge. In this reflection, one year after the new Act came into force, the authors describe in more detail how the planning system has shifted in a legal and procedural way. This new Act facilitates a stronger emphasis on the human factor, stakeholders, and participation in spatial development processes.

Chapter 7 by Patrick Witte, Marlies Meijer, Peter Pelzer, Iris Veenvliet, and Lieke Vermeulen discusses the phenomenon of **teaching planning** to the next generation of planners with the help of organized '**planning studios**'. Over 25 years of teaching 'planning studios' at Utrecht University is reflected upon. The concept of using a planning studio or related 'atelier courses' is compared with other educational programs in spatial planning at 5 other universities. First, the theoretical background and didactical philosophy are explained, as well as learning objectives for educating planners as outlined by the Association of European Schools of Planning (2022). The value of teaching to 'think of the long-term future' is emphasized. Next, the history of how the planning studio courses in the Utrecht bachelor's and master's educational programs are taught is reflected upon, with the help of student and teacher evaluations. The authors look back on why and how the planning studios have been altered over the years. Contextual developments such as the financial crisis of 2008 and the influx of international students have influenced the set-up of the planning studio courses. A comparison is made with other studios in Dutch Planning Schools, resulting in an overview of the 'planning studio' courses at Utrecht University, Wageningen University, Radboud University, University of Groningen, University of Amsterdam, and Delft University of Technology. Two planning studio courses are highlighted and discussed, a course in Wageningen and in Nijmegen. The authors suggest, reflecting on the studios and their embedding in curricula, that "the biggest challenge to fostering long-term thinking is not so much the potential of studios as such but rather their decreasing importance as an integrative course in the curriculum design". The authors advocate for the relevance of planning studios because studios (also called ateliers or future labs) provide a space for 'experiential learning experiences' with a mixture of using academic knowledge on theories and methods, and training professional skills. As they offer the ability to solve complex planning problems in a real-world setting, forcing the students to create visions for the future and shape their current actions accordingly, studios

need a place in planning curricula as they are a valuable means to train ‘the futures literacy’ of spatial planning students.

Chapter 8 by Jannes Willems, Barbara Tempels and Caroline Newton concludes this book with a reflection on the implications of the transitions in planning for Dutch planning schools. The chapters on transitions are discussed in a **reflective workshop** held together with the Professors of Planning (POP) network. A central concern was the question what can be done to prepare the next generation of planners for the future, similar to a reflection of the AESOP’s ‘young academics’ as described by Varış Husar et al. (2023). This concluding chapter gives an evaluative overview of where the planning schools stand with regard to the role and responsibilities of planning schools in today’s society. How do we see, at the moment of the workshop in 2024, the influence of transitions in planning research, in planning education, and in practice and creating impact?

6 CLOSING REMARKS

>> In the 21st century, is ‘spatial planning’ in need of a **rethinking** and redefinition? This question has been the starting point for this book. We hope that this book offers part of an answer. The separate book chapters illustrate various transitions, in physical domains such as water, housing, and energy, but also in ‘softer’ aspects of planning, such as the cultural heterogeneity of neighbourhoods in cities, and in processes regarding participation. Two cross-cutting developments are discussed: the legal system of planning with the new Environment and Spatial Planning Act, and education in spatial planning. We evaluate that these developments ‘out there’ have invited us to look ‘inside’ at our own responsibility and possibilities as planning schools in the Netherlands. Therefore, as editors, we decided to keep the structure of the concluding chapter structured along the three core responsibilities of school planning, namely research, education, and practice/creating impact. That is where ‘we’, as planning schools united in this collective pursuit to write a book about transitions in planning, can make a difference.

>> References

- Albrechts, L. (2010). 'More of the same is not enough! How could strategic spatial planning be instrumental in dealing with the challenges ahead?', *Environment and Planning B*, 37: 1115–27.
- Association of European Schools of Planning (2022) Core requirements for a high quality European Planning Education (online). Accessed March 3, 2022. http://www.aesop-planning.eu/en_GB/core-curriculum
- Baker, M. (2014). Planning, Spatial. In: Michalos, A.C. (eds) *Encyclopedia of Quality of Life and Well-Being Research*. Springer, Dordrecht. https://doi.org/10.1007/978-94-007-0753-5_2820
- Brings, L., Förster, A. & Wanner, M. Trialogical cooperation for urban transformation: key relations for enhancing transformative governance. *Urban Transform* 7, 11 (2025). <https://doi.org/10.1186/s42854-025-00079-5>
- Bulkeley, H., & Betsill, M. (2005). Rethinking Sustainable Cities: Multilevel Governance and the “Urban” Politics of Climate Change. *Environmental Politics*, 14(1), 42–63. <https://doi.org/10.1080/0964401042000310178>
- Campbell, H. (2006). Just planning: The art of situated ethical judgment. *Journal of Planning Education and Research*, 26(1), 92-106. DOI: 10.1177/0739456X06288090
- Carton, L.J. (2018). *Klimaat vergt verbouwing van onze steden. Klimaatplanologie is geen toekomst-muziek*. Vrije Ruimte, Agora.
- Dixon, T. & M. Tewdwr-Jones (2021). Shaping the future: city vision case studies. In: *Urban Futures: Planning for City Foresight and City Visions*, pp. 153 - 180. Bristol University Press. <https://doi.org/10.46692/9781447336297.010>
- Dutch Research Institute for Transitions (DRIFT) (2024). About transitions — and how you can explore and accelerate fundamental change. <https://drift.eur.nl/en/about-drift/transitions/>
- Fainstein, S. (2010). *The Just City* (1st ed.). Cornell University Press.
- Faludi, A. & A.J. van der Valk (1994). *Rule and Order Dutch Planning Doctrine in the Twentieth Century*. Springer Science & Business Media.
- Ernst, L., R.E. de Graaf-Van Dinther, G.J. Peek, and D.A. Loorbach (2016). Sustainable urban transformation and sustainability transitions; conceptual framework and case study. *Journal of Cleaner Production* 112(4), 2988 - 2999. <https://doi.org/10.1016/j.jclepro.2015.10.136>
- Ernstson, H. (2021) Ecosystems and urbanization: A colossal meeting of giant complexities. *Ambio* 50, 1639–1643. <https://doi.org/10.1007/s13280-021-01516-y>
- Geels, F.W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms. *Environmental Innovation and Societal Transitions* 1, 24 - 40. <https://doi.org/10.1016/j.eist.2011.02.002>
- Haasnoot, M., J.H. Kwakkel, W.E. Walker and J. ter Maat (2013). Dynamic adaptive policy pathways: A method for crafting robust decisions for a deeply uncertain world. *Global Environmental Change* 23(2), 485- 498. <https://doi.org/10.1016/j.gloenvcha.2012.12.006>
- Haghani, M., S. Sabri, C. De Gruyter, A. Ardeshiri, Z. Shahhoseini, T. W. Sanchez & M. Acuto (2023). The landscape and evolution of urban planning science, *Cities*, Volume 136, 2023, 104261. <https://doi.org/10.1016/j.cities.2023.104261>

- Healey, P. (2006). Collaborative planning: Shaping places in fragmented societies (2nd ed.). Palgrave Macmillan.
- Hebinck, A, G. Diercks, T. von Wirth, P.J. Beers, et al (2022). An actionable understanding of societal transitions: the X-curve framework. Sustainability Science 17(3) 1009-1021. <https://doi.org/10.1007/s11625-021-01084-w>
- Hölscher, K., Frantzeskaki, F., McPhearson, T., and Loorbach, D. (2019). Tales of transforming cities: Transformative climate governance capacities in New York City, U.S. and Rotterdam, Netherlands. Journal of Environmental Management, 1(231): 843-857. <https://doi.org/10.1016/j.jenvman.2018.10.043>
- Hölscher, K. & Frantzeskaki, N. (2021) Perspectives on urban transformation research: transformations in, of, and by cities. Urban Transformations 3(1): 1-14. <https://doi.org/10.1186/s42854-021-00019-z>
- Jordan A., D. Huitema, J. Schoenefeld, H. van Asselt H, J. Forster (2018). Governing Climate Change Polycentrically: Setting the Scene. In: Jordan A, Huitema D, van Asselt H, Forster J, eds. Governing Climate Change: Polycentricity in Action? Cambridge University Press; 2018:3-26. <https://doi.org/10.1017/9781108284646.002>
- Judge, M., T. Bouman, L. Steg and J.W. Bolderdijk (2024). Accelerating social tipping points in sustainable behaviors: Insights from a dynamic model of moralized social change. One Earth. <https://doi.org/10.1016/j.oneear.2024.04.004>
- Kaika, M. (2017). 'Don't call me resilient again!': the New Urban Agenda as immunology ... or ... what happens when communities refuse to be vaccinated with 'smart cities' and indicators. Environment & Urbanization, 29(1), 89-102. <https://doi.org/10.1177/0956247816684763>
- Kemp, R. & D. Loorbach (2006). Transition management: a reflexive governance approach. Chapter in: Voss, J., D. Bauknecht and R. Kemp, Eds. (2006). Reflexive Governance for Sustainable Development. Cheltenham, Edward Elgar.
- Klinenberg, E. (2018). Palaces for the people: how to build a more equal and united society. Vintage.
- Köhler, J., F. W. Geels, F. Kern et al (2019). An agenda for sustainability transitions research: State of the art and future directions. Environmental Innovation and Societal Transitions. <https://doi.org/10.1016/j.eist.2019.01.004>
- Loorbach, D., N. Frantzeskaki, and F. Avelino (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal Change. Annual Review of Environment and Resources, Vol. 42:599-626 <https://doi-org.ru.idm.oclc.org/10.1146/annurev-environ-102014-021340>
- Monocle (2024). The Monocle companion: Fifty ideas for building better cities. Monocle: London.
- Moreno, C. (2024). Carlos Moreno (2024) The 15-Minute City: A Solution to Saving Our Time and Our Planet, John Wiley & Sons, Hoboken NJ.
- Nadin, V., Stead, D., Dąbrowski, M., & Fernandez-Maldonado, A. M. (2020). Integrated, adaptive and participatory spatial planning: trends across Europe. Regional Studies, 55(5), 791-803. <https://doi.org/10.1080/00343404.2020.1817363>
- Ostrom, E. (2010). Polycentric systems for coping with collective action and global environmental change. Global Environmental Change, 20(4), 550-557. <https://doi.org/10.1016/j.gloenvcha.2010.07.004>

- Potjer, S. (2019). *Experimental Governance: from the possible to the doable to the new mainstream*. Urban Futures Studio, Utrecht University. https://www.uu.nl/sites/default/files/experimental_governance-urban_futures_studio-en-web.pdf
- Roo, G.D. (2012). *Spatial Planning, Complexity and a World 'Out of Equilibrium': Outline of a Non-linear Approach to Planning*. Chapter in: Roo, G. D., & Hillier, J. (2012). *Complexity and planning: Systems, assemblages and simulations*. Taylor & Francis Group.
- Rotmans, J., R. Kemp, and M. van Asselt (2001). "More Evolution Than Revolution: Transition Management in Public Policy." *Foresight* 3(1).
- Rotmans, J. & M. Verheijden (2021). *Omarm de chaos*. de Geus. EAN: 9789044546538.
- Scheffer, M. (2009). *Critical Transitions in Nature and Society*. Princeton University Press. ISBN 9780691122045.
- Simons, L. & A. Nijhof (2020). *Changing the game. Sustainable market transformation strategies to understand and tackle the big, complex sustainability challenges of our generation*. Routledge.
- Taşan-Kok, T. & S. Özogul (2021). *Fragmented governance architectures underlying residential property production in Amsterdam*. *Environment and Planning A: Economy and Space* Volume 53, Issue 6, September 2021, Pages 1314-1330. <https://doi.org/10.1177/0308518X21996351>
- Oomen, J., J. Hoffman, and M.A. Hajer (2021). *Techniques of futuring: On how imagined futures become socially performative*. *European Journal of Social Theory* 25(2) 1 - 19. <https://doi.org/10.1177/1368431020988826>
- United Nations, Department of Economic and Social Affairs, Population Division (2015). *World Urbanization Prospects: The 2014 Revision, (ST/ESA/SER.A/366)*. <https://desapublications.un.org/publications/year/2014>
- Variş Husar, S. C., Mehan, A., Erkan, R., Gall, T., Allkja, L., Husar, M., & Hendawy, M. (2023). *What's next? Some priorities for young planning scholars to tackle tomorrow's complex challenges*. *European Planning Studies*, 31(11), 2368–2384. <https://doi.org/10.1080/09654313.2023.2218417>
- Witte, P. & Hartmann, T. (2022). *An Introduction to Spatial Planning in the Netherlands*. Verenigd Koninkrijk: Taylor & Francis.
- Wirth, T. von, Fuenfschilling, L., N. Frantzeskaki, L. Coenen (2019). *Impacts of urban living labs on sustainability transitions: mechanisms and strategies for systemic change through experimentation*. *European Planning Studies*, Vol. 27(2) 229-257. <https://doi.org/10.1080/09654313.2018.1504895>