

## Transition Pioneers – Urban Planners as a Source of Momentum for Sustainable Cities and Regions?

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### 1 ABSTRACT

Sustainability as a guiding, normative concept for spatial development faces various challenges when it comes to planning practice. Spatial planners have to contribute to comprehensive societal changes that are necessary in order to transform society to sustainability. This fundamental societal change has been framed as “Great Transformation” by the German Advisory Council on Global Change (WBGU). Urban planners as one of the key actors for sustainable urban and regional development are faced with the challenge of contributing to societal transformation processes towards sustainability. Based on the theoretical background of transition theory and the Multi-Level-Perspective this paper identifies innovative planners as pioneers for sustainable urban development. It examines the role of these innovative planners in their specific context and asks what role they play on the way towards a “Great Transformation”. The paper is based on guideline-based expert interviews with innovative urban planners across the whole of Germany. By examining the career patterns of planning practitioners of different areas the existence of personal beliefs relating to sustainability becomes clear. In order to fulfil their beliefs pioneers find themselves in varying positions ranging from communicators, developers and multiplier of alternative ideas and projects of sustainable urban development. They perform their role on niche level as well as on the regime level and are able to connect actors of the both. Applying unorthodox methods and planning tools and being involved in local, regional as well as global actor networks, the selected pioneers contribute to the sustainability transformation.

### 2 SUSTAINABLE DEVELOPMENT CHALLENGING URBAN PLANNERS

In 2013, 26 years after the Brundtland-report was published, its most famous agent Gro Brundtland received the German Sustainability Prize for initiating the global dialog on sustainability in the late 1980ies (SCHULZE-HAUSMANN 2015). Brundtland as the former chairman of the World Commission on Environment and Development is seen as an essential actor in demanding and supporting a shift from a growth-oriented society to a sustainable development on multiple layers (UN 2015). Even if the Brundtland-report is almost 30 years old, LOORBACH and ROTMANS (2010: 9) state, that we are still far away from realizing a sustainable society. Today, the desired transformation process is tremendously important for urban areas, since 66 percent of the worlds population will live in cities and their surrounding areas by 2050 (UN-HABITAT 2014, RAHO 2014). These agglomerations will have to be resilient in order to accommodate the anticipated growth and resulting resource consumption of a growing urban population.

Besides being a risk for a sustainable development due to the cities' high consumption patterns the hybrid urban spaces can form a hub of socio-technological progress (WBGU 2011). In order to create resilient, sustainable cities and regions "consumption patterns and lifestyles must be changed in such a way that [...] low-carbon societies can develop" (ibid.: 5).

Urban planners as designers of future cities (BAYER et al. 2010) have the power to play an important role within that transformation process. Today, there are various innovative approaches in urban and regional planning that bear the potential of accelerating the transformation towards sustainability. One can find different projects at different spatial levels such as the "transition town movement" as well as small size initiatives within cities (e.g. urban gardening, sharing communities). The aim of this paper is to identify innovative planners within such approaches as pioneers for sustainable urban development and to examine the role of these planners in their specific context. What role do they play (or can they play) on the way towards a so called "Great Transformation" (WBGU 2011)? How and why do planners become pioneers for sustainable urban and regional development? How do they realize their innovative ideas and projects? Which instruments and methods do they use? How do they overcome challenges? Within which actor networks do they act? These guiding questions are reflected based on eight interviews with identified pioneers.

### 3 METHODOLOGICAL APPROACH AND PIONEER INTRODUCTION

In order to answer the questions above, the project searched for suitable interview partners. The aim was to identify persons who simultaneously hold a degree in urban planning and are pioneers by taking new directions towards sustainable urban and regional development in their professional work.

The definition of a pioneer was specified using the description of the WBGU (2011: 243). Pioneers were thus defined as initiators and designers of processes of change regarding the above mentioned „Great Transformation“. Within the transition process these individuals can hold varying positions and exercise different functions such as communicator among various different actors, shaper of alternative goals and paths for development, investor and entrepreneur, developer of new concepts, mediator among conflict parties, distributor of alternative ideas, etc. (WBGU 2011: 242-246).

Endowments, networks (e.g. alumni), professional journals and internet searches were used for the identification.<sup>1</sup> After establishing contacts guided interviews were conducted based on a semi-structured interview-guide. The results were transcribed and qualitatively interpreted to retrace the different careers. The outcome are individual development pathways showing important steps in professional life and revealing key factors that define a transition pioneer and their instruments, methods and networks. Hence, the selected agents must not be seen as a generally valid synopsis of the whole group of planning pioneers within Germany.

Within the case study the theoretical concept of transition theory functions as the theoretical basis to guide the analysis of the practice of German planning practitioners dealing with the challenge of sustainable development in innovative ways (e.g. GRIN, ROTMANS, SCHOT 2010). The transition theory offers analytical elements that were useful for interpreting the empirical material. In December 2014 eight interviews were held with the following potential pioneers:

- Interview A // head of international projects of German association for sustainable building and construction
- Interview B // municipal employee responsible for climate mitigation in middle-sized German city
- Interview C // employee of German architectural and urban planning office
- Interview D // freelancer as urban planner, urban researcher and teacher
- Interview E // founder of agency focusing on conversion of buildings and plots in urban spaces
- Interview F // researcher of research institution focusing on urban design, urban infrastructure, strategic planning and technology management
- Interview G // member of interdisciplinary association focusing on urban development, conversion of buildings and plots in urban space and creative economy

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<sup>1</sup> It has to be noted that, when trying to identify actors working in niche segments from an external point of view, those who do not participate in public networks etc. will rather stay unnoticed.

#### 4 TRANSITION THEORY

Scientists within the scope of sustainability currently are trying to identify methods that lead to a sustainable society. A major component in this research field consists of the experience of the interdependency between society and environment (MICHELSEN, ADOMSSSENT 2014). The science of sustainability is not a solitaire phenomenon; it is rather a combination of various sciences that strive for knowledge in terms of sustainability. Within the last 20 years there have been strong efforts on the level of politics as well as in sociological fundamental research to deepen the knowledge about transition processes. Within this field of research the WBGU, founded in 1992 as a scientific advisory council for the German federal government, plays a stimulating role. MARKARD et al. (2012: 111) state that so far four theoretical frameworks exist within the sustainability transition research. Namely, these include transition management (KERN, SMITH 2008; LOORBACH 2010; ROTMANS et al. 2001), strategic niche management (KEMP et al. 1998; RAVEN, GEELS 2010; SMITH 2007), the Multi-Level-Perspective on socio-technical transitions (GEELS 2002; GEELS, SCHOT 2007), and technological innovation systems (JACOBSSON, JOHNSON 2000; HEKKERT et al. 2007).

Transition theory (GEELS 2005; GRIN, ROTMANS, SCHOT 2010; ROTMANS, KEMP, VAN ASSELT 2001) applies a socio-technical systems perspective and provides an explanation for processes of societal change within these systems. Transition theory suggests that dealing with persistent problems which result from a system's unsustainability, such as climate change and the need for climate change mitigation and energy transition, requires "fundamental changes in the societal system and its subsystems" (FRANTZESKAKI, LOORBACH, MEADOWCROFT 2012: 21), so called transitions.

Transitions itself can be defined as "radical, structural changes of a societal (sub)system." as well as "shifts between equilibrium states of societal systems (energy, mobility, water, agriculture, health care, etc.) and [...] the result of a co-evolution of economic, cultural, technological, ecological and institutional developments at different levels." (Transition Academy, 2015). Within this paper, the definition of transition is based on the Multi-Level-Perspective (MLP) because it allows to analyse the transformation process as a whole as well as to zoom in on specific activities of unique actors in order to understand their role, responsibility and interactions. It views transition as an interaction between three levels of analysis (GEELS 2002):

The regime level describes the dominating thought patterns within different subsystems of a society, e.g. generally accepted cultural norms that determine the way of interacting in public spaces or attitudes that control the pursuit of economical growth. The socio-technical regime patterns are represented by regime actors leading society (e.g. politicians). Laws, rules and regulations help to stabilize the paradigms agreed to by the majority. (GEELS, SCHOT 2007: 399)

The landscape level represents the exogenous environment. It influences the society levels via changes, that differ in their amplitudes. VAN DRIEL and SCHOT (2005: 54) categorize three kinds of landscape changes, namely very slow changes (e.g. the climate), longterm changes (e.g. the German industrialisation in 19th century) and sudden shocks (e.g. a rapid crisis, war). This diverse set of factors can be combined in the landscape level because "they form an external context that actors cannot influence in the short term". (GEELS, SCHOT 2007: 403)

The third level of the MLP combines niche innovations. Within this level, radical innovations are generated by microlevel actors (GEELS, SCHOT 2007: 400). The niche provides a protected space for these at first unstable and unoriented innovations and allows them to prepare their ascent towards the regime.

Within the transition process, the possibility for niches to compete against the existing regime arises with the pressure coming from the landscape level (i.e. climate change), which weakens the deeply-rooted regime structures (mind-sets, laws, values, etc.) and creates flexibility on the regime level that allows new developments at the niche level (see Figure 1) (GEELS, KEMP 2005: 13; GEELS, SCHOT 2007: 400).

The project used the transition theory as a theoretical structure to describe the efforts of urban planners to contribute to sustainable urban development (e.g. GRIN, ROTMANS, SCHOT 2010). To analyse unique transition pathways of selected pioneers the MLP on transition theory served as theoretical basis. It was used

under the assumption that pioneers who take unorthodox paths often act in niches only ascending to the regime level under certain conditions mentioned above.

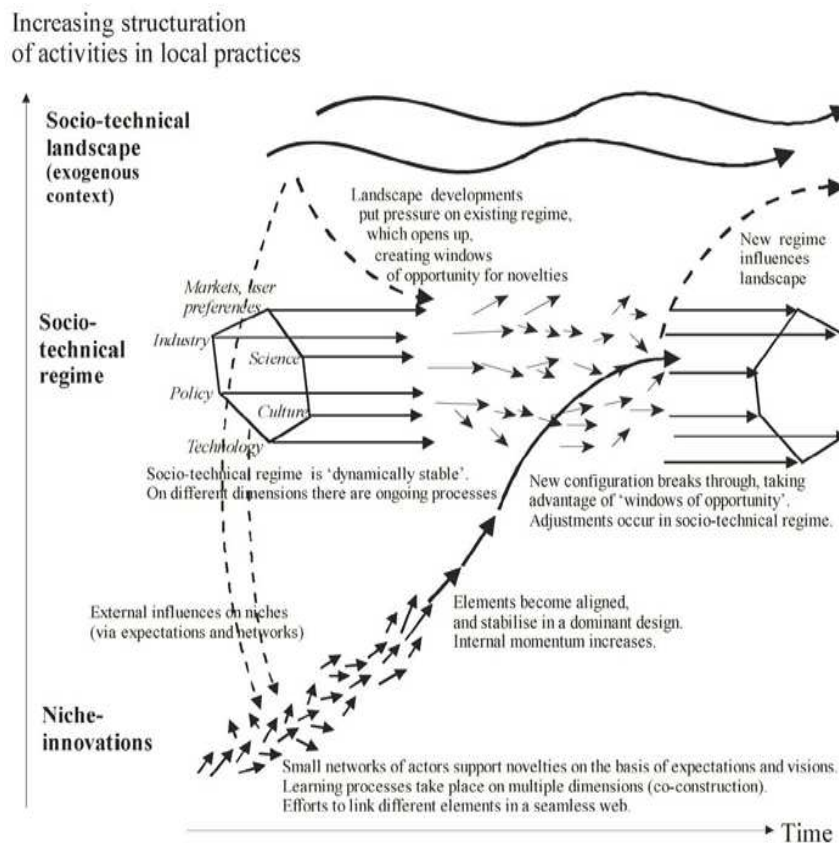


Figure 1: Model of MLP (Source: GEELS, SCHOT 2007: 401; figure adapted from GEELS 2002: 1263)

## 5 RESULTS

Analysing the interviews and taking into consideration the theory explained above, the following conclusions were achieved regarding the instruments, methods, approaches as well as actor networks of transition pioneers. They will be explained with the help of selected career pathways of the urban planners that were interviewed.

(1) Which instruments and methods do transition pioneers use to promote sustainable urban development?

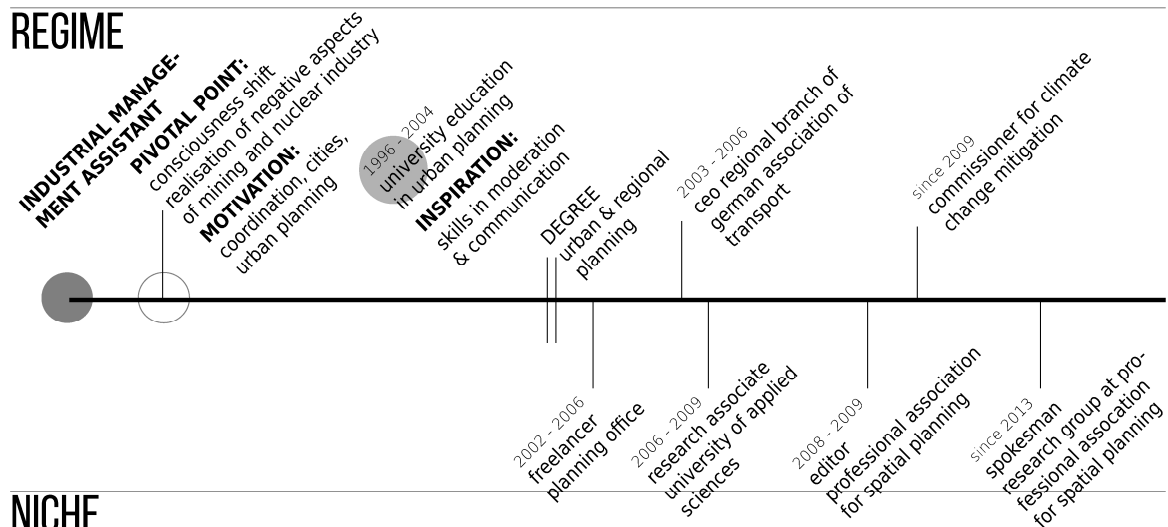
The instruments and methods of transition pioneers in urban planning are characterized by interdisciplinarity, communication and cooperation. These are key attributes of the projects and approaches of the interviewed pioneers. The ability of urban planners to communicate and cooperate with different actors across disciplinary boundaries is considered highly important (Interviews A, B, C, E, G, H). On the one hand, planning pioneers use their communication skills to form coalitions with like-minded people of different disciplines, mutual support and inspiration (Interviews A, E, G). On the other hand, planning pioneers may function as intermediary parties between niche actors, citizens and regime actors. As such they help to integrate the views and opinions of underrepresented population groups in urban development processes by developing new tools for public participation (Interviews H) and designing and implementing cooperative projects at the interface of niche and regime level (Interviews E, G). In line with this role transition pioneers facilitate the access of niche actors, vies and ideas to the regime level and vice versa.

Furthermore, planning pioneers often work at the interface of different disciplines and combine the knowledge of different disciplines (Interviews D, E, H). For example, interviewee E (see figure 2) holds degrees in urban planning and architecture and uses the techniques of both disciplines to combine skills in urban and building design with concept development on a bigger spatial scale to create new ideas for the (temporary) conversation of vacant properties. His projects are often co-developed by local initiatives, protest movements and artists – groups which may be difficult to reach by established regime actors and formal urban planning processes and actors.

## LANDSCAPE

### TURNAROUND IN GERMAN ENERGY POLICY

## REGIME



## NICHE

Figure 2: Pathway of interviewee E - Chose to become an urban planner in order to have a holistic impact on cities. Initiated and supported several unconventional projects since then.

Moreover, transition pioneers emphasise the need for constant learning in view of real-life problems and the need to develop new and adequate tools and methods to practically deal with challenges of sustainable urban development. Planning pioneers do not use “hard skills” often focused on in planning education (such as tools of land-use planning) but tend to question these: “The idea is to leave the academic boundaries and work on real projects in public space instead”<sup>2</sup> (Interview A). Often, the experiences of problems resulting from the lack of sustainability of current practices caused transition pioneers to break the boundaries of disciplines and approaches thought in planning education (Interviews B, E). Thus, they developed communicative and cooperative methods promote the implementation of projects which correspond with their ideas of sustainable urban development (Interviews B, D, E, G, H).

Unorthodox actions are often taken into consideration which may inspire planning pioneers to new original ideas, like interviewee E who occupied empty buildings in order to raise awareness on problems in housing policy and housing shortage in urban centres. Another example illustrates interviewee D who utilizes its artistic interventions in urban and rural areas to question recent phenomena such as climate change or the issue of land consumption.

In summary, flexibility and experimental use of new techniques are recurring aspects when analyzing the instruments and methods used by innovative planning practitioners. Nevertheless, universal assertions on how projects are realized or developed are hard to make because the transition pioneers also emphasize that each project demands a unique set of actions.

### (2) Within which actor networks do pioneers act?

As mentioned above, cooperation, communication and exchange are crucial for the activities of planning pioneers. Linked to this is the importance of actor networks for practical work of innovative planners. All interviewed pioneers are involved in different formal and informal networks from local to regional and global scales. Also, many of the interviewees knew each other either personally or by hearsay. Also, ideas and approaches sometimes are transferred and replicated by different actors in different cities or regions (Interviews E, G).

<sup>2</sup> Original quote: “Die Idee dahinter ist nicht, im stillen Kämmerlein etwas zu erforschen und dann einen Endbericht zu verfassen, sondern konkrete Projekte im öffentlichen Raum umzusetzen im Rahmen dieses Projektes.”

While interviewee C acknowledged to be highly influenced by the local network of Kreuzberg/Berlin, which constitutes his personal living environment, interviewee G mainly relies on regional partners for cooperation. In contrast to this, the projects and activities of interviewee A and H are embedded in international networks with project ideas being developed and transferred across national boundaries. Overall, the spatial focus of the supporters of the transition pioneers differs depending on the specific field of activities: Pioneers can rely on a dense network of local, regional or even international actors. This shows that networks created by the pioneers support different aspects of their work: On the one hand, they are evidently fundamental when collecting and passing on information and ideas. On the other hand, they are crucial when initiating new projects, because pioneers as single persons rely on external support and are aware of the fact that networks are vital for idea development and project implementation. Thus, pioneering can be seen as a social process where innovators co-exist and co-create within a broader range of partners, followers and supporters.

As mentioned above, depending on specific tasks and goals transition pioneers team up with a variety of different types of partners. These range from members of the public administration, to experts in related professions up to more distant professions like artists (Interviews A, B, E, G). Some of the pioneers interviewed formed more institutionalized forms of cooperations through establishing or joining associations (Interviews A, G). Often, these resulted from contacts made during their university studies. The associations are used to bundle resources and establish constant organizational structures as basis for their work.

## LANDSCAPE

TENSE HOUSING MARKET

## REGIME

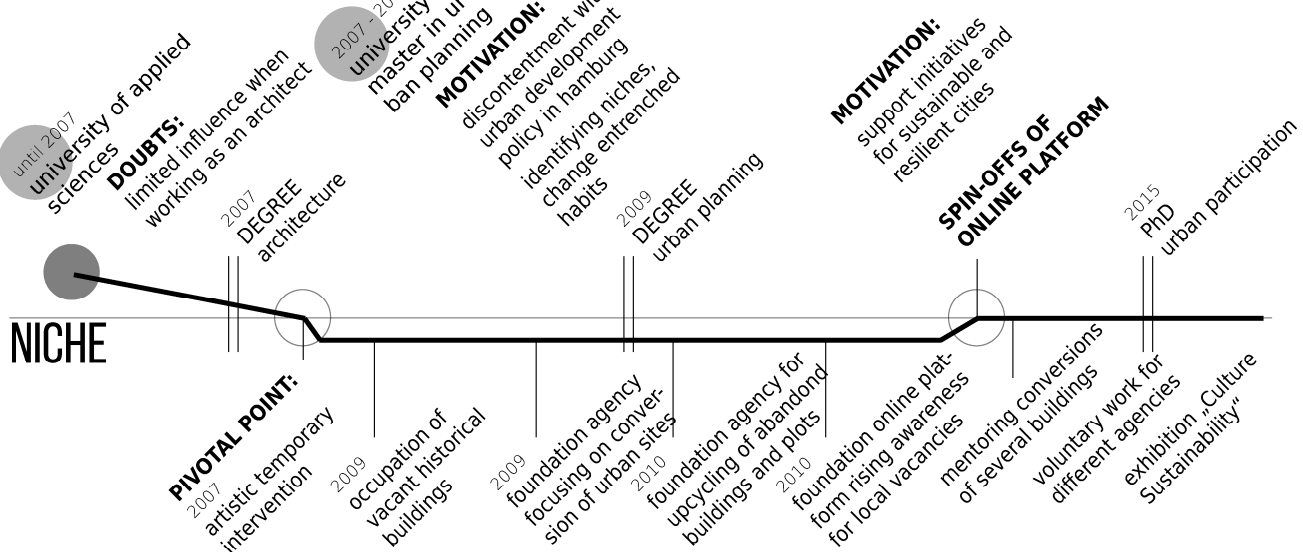


Figure 3: Pathway of interviewee B - Started a career in the industrial sector, switched to the field of climate change mitigation but continues to act within the regime level and pursues the transition from this position.

The transition pioneers use the cooperation with like-minded persons to create scope for action to develop and implement projects which support their idea of sustainable urban development (Interview G). Other transition pioneers founded or joined urban planning offices (Interviews C, H). These may be more strongly dependent on market acceptance to finance their projects. While other pioneers deliberately avoid the establishment of institutional structures to support their activities in order to keep up their independence. They prefer the work as freelancers, which allows the selection of projects only based on individual beliefs and independent of other persons (Interviews D, E).

Transition pioneers also establish, promote and work within actor networks on regime level. For example, interviewee B is responsible for climate mitigation and energy efficiency measures and their organization and coordination across the city. In order to achieve his goals he cooperates with different actors within the city administration as well as professionals from the private sector implementing the construction measures.

He takes the role as interlinking party and contact point for public and private actors as well as citizens. Thus, he spreads his topics and ideas across these three realms and actively promotes the cooperation of different actors. As actor of the regime level he promotes the institutionally embedded topic of climate mitigation through communicative and cooperative approaches and acts as a facilitator of public-private cooperation on regime level. He can also function as an entry point for niche actors to existing networks and regime institutions.

Of course, the exact extent of individual networks could not be explored by a simple interview and is certainly even wider than described above. Pioneers can be seen as hubs of widespread networks. These allow them to adapt specific new partnerships for each of their projects.

(3) How do transition pioneers overcome challenges in planning practice?

Financial obstacles are one of the key challenges for implementing innovative projects of sustainable urban development. The interviewed pioneers overcome this challenges in different ways. E.g. interviewee G (see figure 4) co-founded a registered association, which allows them to collect donations and use them for social projects. Correspondingly, the personal financial benefits of the persons involved are marginal: “we worked for free and even paid extra for it” (Interview G)<sup>3</sup>. This also illustrates the strong idealism and believe in independent ideas which guides the work of all transition pioneers identified.

## LANDSCAPE

SOCIAL INEQUALITIES & STRUCTURAL TRANSFORMATION OF TRADITIONAL ECONOMIES

## REGIME

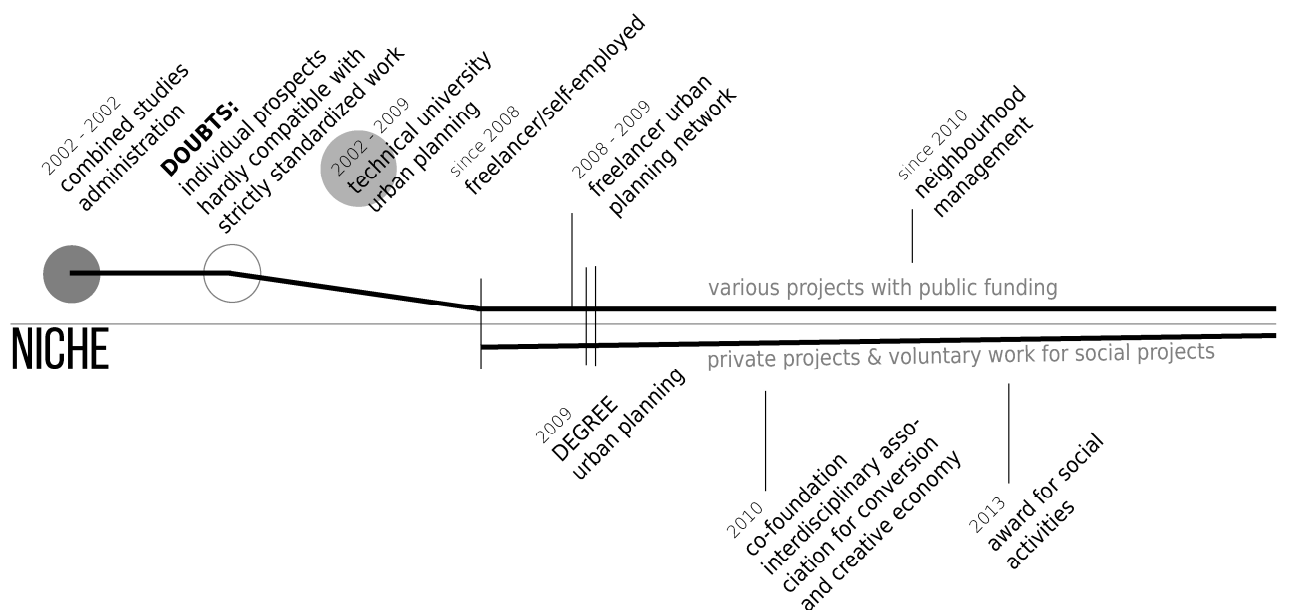


Figure 4: Pathway of interviewee G – Intended to work for the public administration body but later decided to change fields in order to work independently and in accordance with personal beliefs. Ascending towards the regime due to rising publicity.

When following their innovative ideas, pioneers quite often are not focused on gaining financial advantages for themselves. Interviewee D claimed to prioritize its beliefs over financial advantages: “If you don’t like the guy or the task, just say no”<sup>4</sup> (Interview D). Noticeable in all paths (see figure 2-4) pioneers used different paths, activities and jobs to fund their unconventional ideas and allow themselves to pursue their beliefs over a longer period of time. Thus, their work is characterized by strong persistence. Often the groundwork for the later pioneer path was already laid during their university studies. For example, together with a fellow student interviewee H already created an online participation platform while he was still

<sup>3</sup> Original quote: “Wir arbeiteten anfangs kostenlos und zahlten noch drauf.“

<sup>4</sup> Original quote: “Wenn der Typ dir nicht gefällt, wenn der Auftrag dir nicht gefällt, einfach ‘Nein‘ sagen.“

studying. He kept working on its ideas and steadily expended its activities while eventually gaining success after several years.

The interviews also illustrate that pioneers use outside-the-box thinking and creativity in order to follow their moral beliefs. An example is interviewee E, who participated in an alternative project together with various other professionals to create a temporary art fair (see figure 2) by revitalizing an abandoned building. Interviewee C chose to explore new approaches of imparting knowledge by creating a board game about shrinking cities, which was part of an exhibition in the late 2000s. This shows an openness towards new and creative approaches to communicate abstract problems and challenges of sustainable urban development.

All in all, all persons interviewed had to overcome challenges. Overcoming financial constraints is one key challenge of innovative planning practice. Another challenge becomes relevant when looking at pioneers working together with regime actors or even in the regime: certain interviewees (Interview B, C, E) described a lack of openness towards unknown methods and strategies in administrative bodies. This observation corresponds with a notion stated in transition theory: the regime only changes cautiously due to a high number of existing regulations and routines. Hence, it takes a high amount of self-assertion as well as adaptation for a pioneer to work in the regime trying to change it from within.

The transition pioneers continued working on their ideas without losing their focus. They overcome challenges with creativity, outside-the-box thinking, idealism and persistence. Also, mutual support in networks of like-minded people turned out to be highly important.

## 6 CONCLUSION

The research showed that pioneers spoken with shared the opinion that a strong iconic belief in a sustainable future was the reason for unconventional decisions in their professional life: The pioneers stressed these beliefs and made it the main reason for their choice of job, working in sustainable urban and regional development. Anyhow, they exercised a range of different functions within the understanding of change agents, e.g. focusing on communication, development or optimizing. Generally, they followed alternative pathways and often found themselves in niche-positions from where they pursued their ideas and trying to implement them into the mainstream or, corresponding with the transition theory (see figure 1), the regime.

However, the question yet to answer is whether urban planners can be seen as a source of momentum for sustainable cities and regions. Regarding this aspect the theory has to be recalled. As explained in chapter 4 landscape pressure such as drastic climate changes can lead to a de-orientation of regime structures. This creates a possibility or a “momentum” for niche actors to ascent towards the regime and transform the whole system towards sustainability. If this so called “window of opportunity” opens up, niche actors have to be well prepared to be able to contribute to a change. Today, with a number of natural disasters and famines around the globe one can say that the global awareness (and thus the landscape pressure) for a much needed sustainable development is rising. Pioneers as experts in networking and actors of the niche as well as the regime can be seen as mediators between those two levels. They have the power to improve the exchange and the mutual understanding and thus simplify the ascent from the niche to the regime.

Landscape pressure can be seen as a rather passive cause while in reaction to this urban planners actively make use of the momentum to strengthen the path to more sustainability by promoting a value shift in the regime. The interviewees can be seen as niche-actors or with close relations towards the niche-level.

The interviews gave insights on how the pioneers work and interact within different levels of the Multi-Level-Perspective. In contrast to the assumption that pioneering always starts in the niche it was possible to trace pathways starting in the regime without an “ascent” from the niche (see figure 3). Thus, being a pioneer does not necessarily imply to work in the niche. However, most pioneers are rather situated in the niche level, either steadily developing towards the regime or temporarily co-operating with regime actors.

This case study only examined a few individual paths. Nevertheless, this paper can only be seen as a starting point for further discussion and research. The work and experiences of a higher amount of pioneers needs to be analysed and compared within an international scope to be able to prove and broaden these first findings. A deeper understanding of the pioneers’ values, their emergence and development in context with educational institutions is yet to be analysed.



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