Civil society actors as drivers of socio-ecological transition?

Green spaces in European cities as laboratories of social innovation

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Judith Schicklinski (UNIBZ)

Abstract

Why are civil society dynamics concerning green spaces across European cities so interesting for socio-ecological transition? All over Europe self-organized civil society movements are emerging to tackle local challenges, becoming active players in local governance processes. These social experiments have even been intensified as a result of tight public local budgets. Their activities contribute to the functioning and well-being of a European society aiming for sustainability.

Preserving the availability of bio-diverse green spaces is crucial for the socio-ecological transition of cities since besides providing recreational opportunities for city dwellers, they yield essential ecological benefits from cleaning the air to reducing noise, but also provide habitat for many species and plants and reduce local vulnerabilities to extreme climate events.

In cities in which local governments have severe difficulties in affording the provision of green space, new self-organized initiatives have emerged for maintaining and even developing them. Initiatives such as urban gardening have proven that people are able to cooperate, to organize themselves and to take over responsibility for green spaces as well as even introducing new practices that support the socio-ecological transition.

This Milestone will contribute to the questions:

-how can citizen groups contribute to maintain existing green spaces which are available and accessible for all and possibly being expanded whilst assuring biodiversity and allowing diverse use for local needs (re-creation, community-based food-production, neighbourhood culture, common intergenerational and intercultural learning etc.) at the same time;

-which policy framework allows for a constructive colaboration between local authorities, administration, economic actors and citizens, enabling innovative solutions in the area of urban food production, green-space management and participative urban development.

Contribution to the Project

This paper provides a depended analysis and interpretation of aspects that emerged in the data analysis and interpretation phase of Area 5/Work Package 501 on 'The Role of Cities in the Socio-Ecological Transition of Europe' (ROCSET). Concentrating on the resource system green spaces, it explores social innovation in green spaces governance across European cities with a focus on actors, processes, and contributions of citizen driven activities within green space management and urban food-production. Therewith, it adds to the question of how social innovations can be supported so that they contribute to social and ecological sustainability.

Keywords:

Citizen participation, Civil society, Green spaces, Local governance, Self-organisation, Social innovation, Socio-ecological transition, Urban green commons

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1. Introduction

Global climate change, the loss of biodiversity, and the end of fossil resources require a paradigmatic shift in direction of sustainable forms of organising society and economy within a limited time frame. Such a shift can be conceptualised with the term ‘socio-ecological transition’ (SET), which first appeared in the title of an EU policy document in 2009 (Domenico Di Rossetti Valdalbero 2009). It was only defined academically later, with the most comprehensive examination of the concept given by Marina Fischer-Kowalski:

> “Transition is a process starting off from one system state and ending up in another […] A socio-ecological transition [moves] away from fossil fuels, towards solar and other low carbon energy sources (‘new’) transition. This transition will inevitably occur, due to the limitations of fossil fuels, but it may be actively accelerated, mainly to avoid catastrophic climate change.” (Marina Fischer-Kowalski et al. 2012, 5)

This means on the one hand that SET can be actively influenced and even steered by people, whilst on the other it is a comprehensive social process involving all realms of society: “What is changing is not just the source of energy and technologies, but many other features of society as well: the economy, the demography, the settlement patterns, the social relations and the very make-up of human personalities.” (ibid) Thus, it cannot be achieved by simple technological improvements but includes “major shifts in consumerism, productivism, and institutional arrangements.” (David Harvey 2012, 127) There is a growing academic and policy discourse about the possibilities of and barriers to SET. While long-term goals seem to be clear, discussion of how to reach these goals is controversial. A key assumption of this paper is that such a transition is unimaginable without an active contribution from civil society, meaning the involvement, active participation, and self-organisation of socially innovative bottom-up actors emerging mostly—but not exclusively—in this societal realm. Previous work confirms the importance of these actors for the transition, for example, Gill Seyfang's and Adrian Smith's (2007, 585) research on ‘grassroots innovations’. David Harvey (2012, 128) stresses the interrelatedness of social and ecological questions when asking about the influence of urban-based social movements in reaction to three phenomena:

> “The first is that of crushing material impoverishment for much of the world's population. […] The second question derives from the clear and imminent dangers of out-of-control environmental degradations and ecological transformations [and] the third […] derives from […] [an] understanding of the inevitable trajectory of capitalist growth […] that exerts such enormous destructive pressure on global social relations and ecosystems." (Harvey 2012, 127)

Finally, yet importantly, Elinor Ostrom (e. g. 2005) shows that a self-organised management of commons[1] beyond state and market forces is possible, disproving a long-standing economic theorem.

In Europe, land is a finite and shrinking resource because of land use changes that are mostly and increasingly marked by land consumption, due to a rising urbanisation trend with concomitant urban sprawl and soil sealing (Stefan Bringezu et al. 2014, 50). Therefore, across European cities, the use of urban space is highly controversial and subject to diverging interests, yielding a high conflict potential. Persisting economic growth logic manifests itself in ongoing infrastructure and building development pressure, threatening inner and outer city green spaces, especially in growing cities. Yet, preserving the availability of bio-diverse green spaces is crucial, since apart from offering recreational opportunities for city dwellers, they yield indispensable ecological benefits, such as reducing noise, cleaning the air, providing a habitat for plant and animal species and mitigating local vulnerability in the face of extreme climate events. In this context, citizens are becoming increasingly aware of the necessity for "commoning" (Silke Helfrich and David Bollier 2014, 19), that is, self-organising, to reclaim green spaces, e. g. by taking care of green space use and management, thereby turning them into common space.

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[1] ‘Commons’ is the short term for ‘common goods’. A synonym, more familiar to economists since used in the theory of goods, is ‘common-pool resources’. For an explanation of their specific traits to distinguish them from private goods and toll goods but also from public goods, cf. Ostrom (2005, 24).

In the scope of the WWWforEurope project, following Ostrom's work on the governance of commons, the role of urban green spaces and particularly the role of citizen participation and civil society's self-organisation in their governance, was examined (Sauer et al. 2015, 79–108). One of the main findings was that, compared to the other examined resource systems of water and energy, self-organisation emerges more easily and can be found more often and to a higher degree in the field of green spaces, up to the point that in some places it has even become a transition driver. This paper connects to these findings by looking at the role of civil society in the post-growth debate, examining its position vis-à-vis state and market players and exploring the impact of its activities' at the local level. To answer the underlying research question ***under what local conditions and to which extent civil society can be a transition driver in the resource system green spaces in European cities***, two specific questions are posed:

(1) *How can citizen groups contribute to maintaining existing green spaces that are available and accessible for all and which should be expanded whilst assuring biodiversity and providing for a diversity of uses for local needs (recreation, community-based food-production, neighbourhood culture, cross-generational, intercultural learning, etc.) at the same time?*

(2) *Which policy framework allows for constructive collaboration between local authorities*[2]*, economic actors and citizens, enabling innovative solutions in green spaces governance, urban food production and participatory urban development?*

Thus, the research firstly aims to provide a deepened analysis of actors, processes, and contributions of citizen-driven activities within green space governance and urban food production in European cities. Secondly, its goal is to present 'best practice' examples and to identify institutional conditions under which they have evolved in order to prepare replicability elsewhere. Lastly, its objective is to direct the attention of researchers and policy-makers to civil society actors, recognising their role and potential in contributing to, initiating, and sustaining processes of transition across European cities, in order to create improved framework conditions for their involvement. In the empirical section the three main types of socially innovative civil society dynamics emerging on the grassroots level, which became apparent in the empirical data, will be displayed, besides shedding light on actors' motivations and existing barriers and conducive conditions for citizen participation and self-organisation.

The paper is structured in six parts. In the first part of the second chapter, a theoretical background on the social innovation—civil society nexus is provided, asking how social innovation can be defined and where it occurs before circumscribing 'civil society' and shedding light on two forms of civic engagement, namely citizen participation and self-organisation. The second part of the theoretical chapter deals with the topic of urban (green) spaces as spaces of civil society action. It firstly analyses how space is sociologically created by actors, with 'commoning' being one specific form of space-creation. It then elucidates actors' motivation. Secondly, it deals with the issue of power, democracy, and public space. In this context, the disappearance and loss of public space—often linked to privatisation—as well as reactions to these processes, such as citizens (re)appropriating public space and thus defending green spaces, are described, with a particular focus on urban food production as one form of productively re-appropriating public space. In the third chapter the methodological approach is displayed and in the fourth chapter, the empirical results depicted. The focus of this paper lies on the three, often intertwined, issues around which civil society action mainly centres in the field of green spaces in European cities, as the data analysis in the scope of the ROCSET project revealed. These issues are: *self-organising in reaction to the reduction of green spaces for building and infrastructure development*, *urban food production* and *new coalitions to take care of public green spaces*. Also, the motivations of local actors from all sectors to become active in sustainability issues in general as well as the more specific motivations for producing food in the city are displayed, since understanding local actors' motivations is one key for designing sustainable local policy options. Another key is the identification of barriers and conducive conditions for citizen participation as well as self-organisation, which is displayed in the last part of the chapter. The fifth chapter discusses the empirical findings and tries to answer what role civil society actors can play in green spaces governance in European cities and which policy framework allows for innovative solutions therein. The last chapter concludes and gives some policy recommendations.

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[2] This term comprises local politicians and civil servants in the local administration.

2. Theoretical background

2.1 Social innovation and civil society

This research assumes that social innovation most often emerges in civil society, and then possibly spreads to the state and market sector. This hypothesis requires a first step to delineate the terms ‘social innovation’ and ‘civil society’ and a second step to be confronted with existing research on the social innovation and civil society nexus.

2.1.1 What is social innovation and where does it happen?

The term social innovation has become omnipresent in current policy discourses. In a publication by the European Commission, social innovations are generally defined as

> “innovations that are social in both their ends and their means. […] We define social innovations as new ideas (products, services and models) that simultaneously meet social needs (more effectively than alternatives) and create new social relationships or collaborations. In other words they are innovations that are not only good for society but also enhance society’s capacity to act.” (Agnès Hubert et al. 2011, 33)

A more detailed definition of different types of social innovation is given by Wolfgang Zapf, who also describes their relation to their technical counterparts:

> “Social innovations are new ways to reach goals, especially new forms of organisation, new regulations, new lifestyles, that change the direction of social change, that solve problems better than former practices and that are therefore worth to be imitated and institutionalised. Social innovations can be preconditions, concomitants or consequences of technical innovation.” (Wolfgang Zapf 1989, 177–78, author's translation)

Looking back in time, the term ‘innovation’, then referring to ‘entrepreneurial innovation’, was first mentioned by Joseph A. Schumpeter. He defines the latter as the “central autonomous cause of economic development” (Joseph A. Schumpeter 1983 [1934], xxiv). For him, innovation is „the commercial or industrial application of something new—a new product, process, or method of production, a new market or source of supply; a form of commercial, business, or financial organization [...] [which evolves in] a process of Creative Destruction” (Schumpeter 1983 [1934], xix-xx). This creative aspect also becomes obvious in his theory of innovation, which states that “innovation combines factors in a new way, or […] it consists in carrying out New Combinations” (Joseph A. Schumpeter 2005 [1939], 88). Here, he is close to Albert Bandura's (1997, 473) assessment of creativity’s role for innovative processes, who writes that “few innovations are entirely new. The second type of creativity largely involves synthesizing existing knowledge into new ways of thinking and doing things.”

Schumpeter’s concept of entrepreneurial innovation is clearly tied to the economic realm, whilst the first two definitions given leave open whether social innovation is most likely to emerge in economy, politics, or civil society. Other scholars, e. g. Geoff Mulgan (2006, 145), do not identify one primary locus of social innovation either, but rather attribute it to all societal realms, with sometimes a predominant role for one of them, depending on different historical contexts:

> "During some periods in recent history, civil society provided most of the impetus for social innovation […]. The great wave of industrialization and urbanization in the nineteenth century was accompanied by an extraordinary upsurge of social enterprise and innovation: mutual self-help, microcredit, building societies, cooperatives, trade unions, reading clubs, and philanthropic business leaders creating model towns and model schools. At other times governments have taken the lead in social innovation."

Consequently, “leaders of social innovation have included politicians, bureaucrats, intellectuals, business people, as well as NGO activists” (Mulgan 2006, 148). However, he points to politics’ crucial role in the upscaling of social innovation by its capacity to make laws and to allot public resources (Mulgan 2006, 153). This points to conducive conditions for social innovation to emerge and to be scaled-up, which he quite specifically carves out for different types of social innovation belonging to the three realms of society:

> “For social movements, basic legal protections and status, plus open media are key. In business, social innovation can be driven by competition, open cultures, and accessible capital, and it will be impeded where capital is monopolized by urban elites or government. In politics and government, the conditions are likely to include competing parties, think tanks, innovation funds, contestable markets, and plentiful pilots, as well as creative leaders […]. In social organizations, the acceleration of social innovation is aided by practitioner networks, allies in politics, strong civic organizations […] and the support of progressive foundations and philanthropists." (Mulgan 2006, 155)

He equally names existing barriers in politics and civil society: Whereas in politics and administration “there are few incentives for either politicians or officials to take up new ideas […] [and] anyone who does promote innovations risks upsetting powerful vested interests” (Mulgan 2006, 156), he deplores that public and private support is missing for social innovation emerging in civil society. While business innovations receive “public subsidy […] and private investment incubators, venture capital, and startups” corresponding mechanisms for social innovations, e. g. in the form of foundations or public agencies are less often found (ibid).

Lastly, the concept of social innovation can be looked at from the angle of local development and is then, firstly and quite generally understood as “innovation in the relations between individuals and between groups” (Frank Moulaert 2000, 71), playing a key role in the economic and social development of European cities (Moulaert 2000, 13). This more restricted concept defines social innovation as happening at the local level from below, though it can be actively fostered by “the establishment of communication channels between privileged and underprivileged citizens in urban society, and the creation of grass-roots democracy” (Moulaert 2000, 71). It is thus solely attributed to civil society, even if it can be supported by politics. “The creation of bottom-up structures for participation, decision-making, and production” (Moulaert 2000, 73) are considered to be essential for social innovation to evolve.

2.1.2 What is civil society? –The corrective power of civil society

Jürgen Habermas conceptualises the ‘lifeworld’ as a complement and even counterweight to state and market forces. Civil society’s inherent force is based on its conceptual foundation and logic of action functioning according to the ‘lifeworld’—in opposition to the concept of system that the state and the market follow (Jürgen Habermas 1985, 155-156, 255), thus transgressing a dual state—market logic. In concrete terms this can mean that “’intermediary’ configurations of solidary partnerships open up new employment perspectives: between a combination of ‘local economy’ and ‘social capital’ that can be activated in the third sector and the economic market system alternatively the political-administrative system” (Eckart Pankoke 2002, 277, author's translation).

Important phenomena of civil society, with the potential of driving social change, are social movements. However, it is difficult to trace and classify emerging social movements, since they are manifold and “scenes, groups and topics quickly change” (Jürgen Habermas 1995 [1981], 578, author's translation). They mostly emerge in protest to existing societal conditions, which implies that they might also disappear if their goals have been reached or if their action opens up further arenas and their actors assume roles in more institutionalised processes. However,they do not necessarily have to vanish. They can also collaborate closely with public authorities and still comply with their initial mission of critically observing and triggering innovative local governance approaches (Moulaert 2000, 77). This research is specifically interested in the emergence of a continuously growing type of social movement whose joint and unifying topic is its critique of growth (Habermas 1995 [1981], 577). Social movements mostly emerge and grow in the urban space. The innovative and corrective power of urban social movements is expressed by Manuel Castells (1983, 278), describing them as a “conscious collective practice originating in urban issues, able to produce qualitative changes in the urban system, local culture, and political institutions in contradiction to the dominant social interests institutionalized as such at the societal level”. He carves out the features of urban social movements as striving for “local government, self-reliance, and citizen participation […] [in opposition to] “increasing bureaucratic forms and the authoritarian style of an increasingly centralized state” (Castells 1983, 285). In concrete terms, and coming close to the ideas of social economy (cf. 4.3.2.4), urban demands brought forward by urban social movements

> “tend to create an alternative economic basis of community-orientated social relations, and, at the same time, their satisfaction could provide a new source of legitimacy for decentralized political power. Community-orientated neighbourhoods could become the social fabric required for a more effective functioning of urban services through self-management, while they could establish the political institutions in the grassroots by bringing the state down to the community level. Participatory democracy appears to be the political prerequisite for achieving both economic redistribution by means of urban services as well as the revitalization of popular culture" (ibid).

One strong international urban social movement has been the ‘Right to the city’. This term was first used by Henry Lefebvre, who considers it to be an umbrella term for a group of inherent rights of city dwellers, of which citizen participation and self-organisation, including the appropriation of commons, are part (Henri Lefebvre 2009, 125). Concurring with Lefebvre, Harvey (2012, 88) believes that urban social movements unavoidably have to deal with the issue of urban commons (cf. 2.2.2.2). He sees a crucial role for urban social movements as an all-embracing collective undertaking towards more democratisation, environmental sustainability, social equality and the re-thinking of values which together lead to profound social change (Harvey 2012, xvi, 4). In this process of change, urban social movements are conceived as a counter force from below to the uncontrolled growth-determined capitalist forces that disregard political, social and environmental effects (Harvey 2012, xv-xvi.).

There is only a small corpus of research on urban movements focusing specifically on green spaces. Stephan Barthel et al. (2013, 1) have researched urban environmental movements’ part in the protection of urban green space. They specify four major functions which these movements can fulfil in protecting urban green spaces: Firstly, they constitute a counter force to “shorter-term and profit-driven interests on urban land through their engagement in place-based struggles […] [and] through their intervention in the planning and use of urban space” (Barthel et al. 2013, 10). Secondly, they contribute to framing ecosystem processes and services. Thirdly, they can make administrative actors acknowledge the worth of urban green areas and “they have the ability to bring new and lay narratives into public debates that can help to express the connectedness and dependency of urban dwellers on ecosystem services such as local food”. Fourthly, they bring in culturally innovative elements by questioning long-established views of how to comprehend urban identity (ibid).

2.1.3 Actors of social innovation: Citizen participation and self-organisation

In his theory on reflexive modernisation, Ulrich Beck (1993, 164, author's translation) describes a civil society which “takes in hand by itself its matters in all areas and spheres of activity of society”. In this sense citizen participation and self-organisation can be considered as a “sub-politicisation of society” (ibid) through which social change is created. Allowing more options for direct democracy is expressed in the slogan ‘Democracy beyond voting’, which has become a keyword in current policy discourses. For example, the Working Group on Public Participation[3] in relation to the EU Water Framework Directive defines public **participation** generally as “allowing people to influence the outcome of plans and working processes” (European Commission 2003, iv). The group distinguishes between three stages of participation mentioned in the directive: **information supply**, consultation and active involvement according to the respective level of involving citizens (ibid). The model assumes that the lower stages are a prerequisite for the higher ones. In order to be able to participate, citizens need to be informed, for example through a website, which constitutes a form of one way communication from public authorities to citizens. **Consultation** takes place if citizens’ input and ideas are asked for in written or oral form, building a two-way information channel, for example via surveys or public meetings without voting (European Commission 2003, 13). Thus, public authorities ask for citizens’ point of view, yet citizens are neither requested to elaborate a common group opinion, nor are public authorities obliged to take citizens’ opinions into consideration (European Environment Agency 2014, 12). **Active involvement** generally means that “interested parties participate actively in the planning process by discussing issues and contributing to their solution” (European Commission 2003, 13). Measures include “citizen’s juries, consensus conferences, task-forces and public meetings with voting” (Mark S. Reed 2008, 2425). This three stage model can be zoomed in by classifying in a more detailed way its highest stage of active involvement, as done for example by Michael T. Wright (2010, 42). For them, information and consultation are only pre-stages of participation. Real participation starts when citizens can take part in decision-making. An example would be elaborating a group proposal in which the decision makers assure citizens that their views will be taken into consideration, which is commonly also known as **stakeholder engagement**. The next higher level is usually known as **delegated decision-making.** Here decision-making authority is partly granted to citizens, for example in the form of participatory budgeting. The highest level of participation is reached when citizens are given decisive power (**co-decision making**). They are on an equal footing with public authorities and are also co-accountable for the results (European Commission 2003, 13, cf. Figure 1.).

Defining **self-organisation** requires a description of its relationship with, and delimitation to, the closely linked concept of participation. There is a growing corpus of literature on the participation—environmental decision-making nexus, and yet self-organisation’s influence on environmental decision-making has, to date, hardly been researched. One reason might be that citizen participation is easier to define and classify into different forms than self- organisation, as undertaken in the preceding paragraph. Another reason might be that the environmental legal framework from the international to the local level, increasingly requires participatory procedures, for example the UN *Convention on Access to Information, Public Participation in Decision-Making and Access to Justice in Environmental Matt*ers (United Nations Economic Commission for Europe 1998)[4] or the European Union *Water Framework Directive* (European Parliament and Council of the European Union 2000)[5]. The UN convention even sets participation in environmental matters as a democratic and human right (European Environment Agency 2014, 13) by giving citizens the “rights of access to information, public participation in decision-making, and access to justice in environmental matters” (United Nations Economic Commission for Europe 1998, 518). In contrast, the concept of self-organisation is of yet, no subject matter in the environmental legal framework. Self-organisation is more dynamic, can occur in manifold ways, and thus its concept is more difficult to grasp and lay down in legislative texts. However, an additional reason could be that both in theory and practice the two concepts are often used interchangeably (Beitske Boostra and Luuk Boelens 2011, 109) without doing justice to their inherent meaning. The following paragraphs try to define commonalities and differences between the two concepts and proposes a model to illustrate the ideas (cf. Figure 1).

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[3] The term is a synonym to the one of ‘citizen participation’ used in this paper.

[4] The convention is commonly known as *Aarhus Convention*.

[5] *Directive 2000/60/EC of the European Parliament and of the Council of 23 October 2000 establishing a framework for Community action in the field of water policy*

An important distinction between participation and self-organisation is the possible locus of initiative-taking. In the case of participation, it lies exclusively with public authorities, whereas in the case of self-organisation it rests with civil society or economic actors, disregarding public policy objectives (ibid). Participation can precede self-organisation, yet it is not a prerequisite for it as the participation ladder model by Wright et al. (2010, 42) might misleadingly suggests. Wright et al. developed their model on the basis of Sherry R. Arnstein's eight step model (1969, 217), adding self-organisation as the highest level of the participation ladder. However, self-organisation goes beyond the scope of participation as far as the degree of decisive power of those involved is concerned. Thus it "comprises all forms of self-organized measures that do not necessarily have to emerge out of a participatory development process but that can be initiated from the beginning by citizens" (Wright et al. 2010, 45, author's translation). Therefore, self-organisation can also emerge independently of existing participation options (cf. Figure 1).

Whereas participation

> "refers to goals set by government bodies on which citizens can exert influence through procedures set by these government regimes themselves […], self-organisation stands for the actual motives, networks, communities, processes and objectives of citizens themselves, at least initially independent of government policies and detached from participatory planning procedures" (Boostra and Boelens 2011, 109).

This is why, in contrast to participation, self-organisation can also emerge as a result of non-involvement by local politics and administration, for example out of missing citizen participation, or it can deliberately be started by citizens as a protest movement against political or administrative action.[6]

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[6] The part on the relationship between citizen participation and self-organisation was first published (in modified form) in Sauer et al. (2015, 13–14).

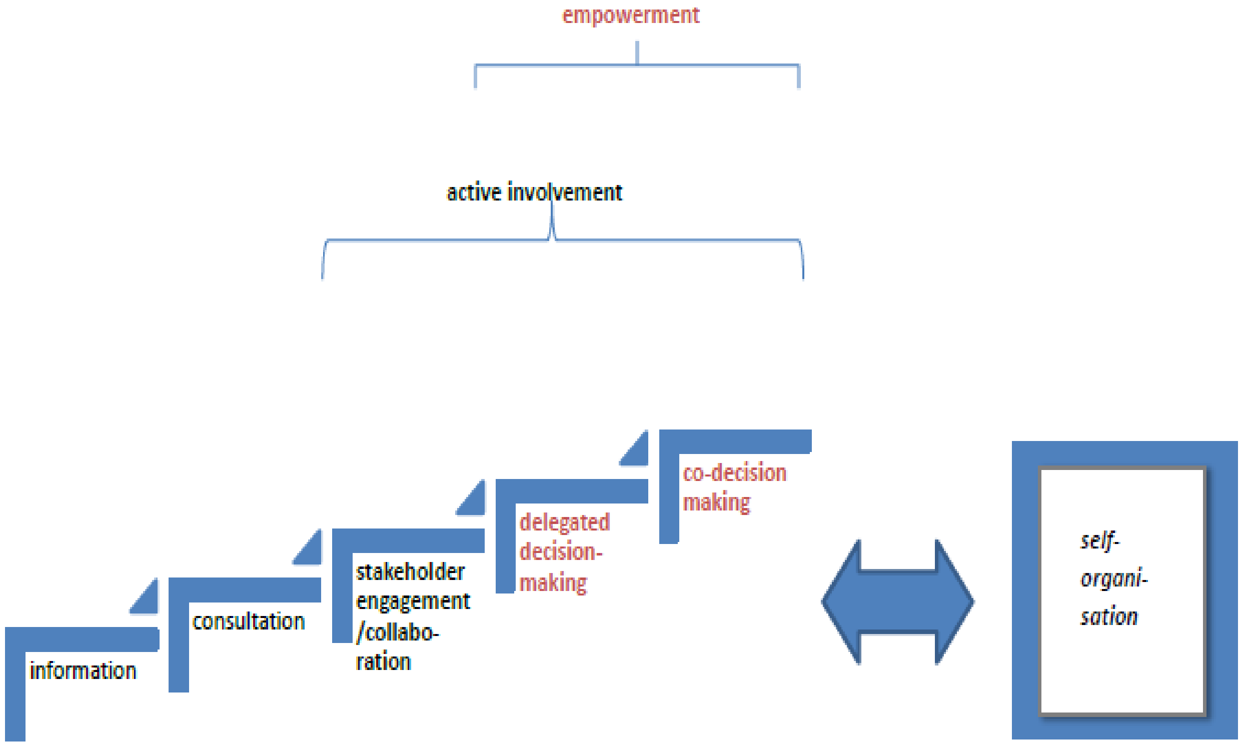

Figure 1: Citizen participation and self-organisation

Source: own representation, based on Arnstein (1969, 217), Boostra and Boelens (2011, 109, 113), European Commission (2003, iv,13), Anna Davies and Julie Simon (2013, 5) and Wright et al. 2010, 42, 45)

2.2 Urban spaces – green spaces – spaces of civil society action

Urban green spaces are "public green spaces located in urban areas, mainly covered by vegetation—as opposed to other open spaces—which are directly used for active or passive recreation, or indirectly used by virtue of their positive influence on the urban environment, accessible to citizens, serving the diverse needs of citizens and thus enhancing the quality of life in cities or urban regions" (URGE 2004, 13). They are relevant for cities due to their interconnected ecological, social, and economic benefits. By their mitigation and adaptation capacities, urban green spaces play an important role in building climate-resilient cities, and they also contribute to biodiversity conservation. They are spaces for recreation and can even be used productively, creating new employment options[7]. Despite these important functions, continuing urbanisation is one of the most severe risk factors threatening their existence. Europe has an urbanisation rate of 73 percent with a rising trend (United Nations, Department of Economic and Social Affairs, Population Division 2014, 1), possibly reaching at least 80 percent by 2020 (Didier Vancutsem 2008, 4). This means that the pressure on urban green spaces will further increase, making the urban environment a field of action for civil society actors trying to obtain changes in green spaces governance.

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[7] For a more detailed display of different green spaces' functions cf. Sauer et al. (2015, 79–80)

2.2.1 Space, actors, commons: creating space

In urban and regional sociology, city and space are considered to be highly interconnected notions. Theoretical conceptions mainly describe space as being related to places and territories (Martina Löw 2001, 9). This approach is insufficient to explain civil society action around urban green spaces, especially the (re)-appropriation of public spaces. Martina Löw has advanced the notion of space by proposing an action-theoretical framework, which seems to be suitable to understand civil society action in the field of urban green spaces. The approach is outlined in the next paragraph. The link between the creation of space and 'commoning' will then be made, as well as to actors' motivations for engaging with sustainability issues. This will be followed by relating the creation of space it to the theme 'power, democracy and public space' being highly relevant for this paper's topic.

2.2.1.1 Sociology of space

Before the emergence of action-theoretical conceptions of space, theoretical approaches could be divided into absolutistic and relativistic ones, with the majority of sociologists adhering to the first group. The absolutistic view conceives space as a container that embraces objects and human beings and in which action takes place. Here, space is equalised with soil, territory and place (Löw 2001, 264). According to the relativistic view, space is constituted by the nature of the relationship between bodies (Martina Löw et al. 2008, 9, 16). Both approaches consider space and action as two phenomena detached from each other, and in neither approach can space be conceived as resulting from human action (Löw 2001, 264). Therefore, Löw develops—out of the relativistic concept—a procedural notion of space, which postulates that "spatial structures are […] forms of societal structures" (Löw 2001, 167, author's translation). The approach tries to understand "how space is made relevant in communications […] respectively how space is produced in processes of perception, remembrance or imagination and how it becomes manifest in societal structures" (Löw et al. 2008, 9, author's translation). Two interacting processes constitute spaces: Firstly, spaces "emerge through the active combination of elements by people. This means that via processes of perception, imagination and remembrance, social goods and people/living beings are combined to spaces" (Löw et al. 2008, 64, author's translation)[8]. 'Commoning' in the field of green spaces, for example in the form of urban gardening on an abandoned brownfield (cf. 2.2.1.2 and 2.2.2.2), can be considered as such a process. Here, a group of users actively takes care of a green space's use and management and therewith (re)combines existing elements or adds new ones to alter existing space and therby creating a new one[9].

Secondly, the process of "spacing" (Löw et al. 2008, 64) means that "space is also constituted by the placing of social goods and people, respectively the placing of primarily symbolic markings to mark ensembles of goods and people as such" (ibid, author's translation). 'Spacing' manifests for example in citizens' movements that appropriate public abandoned space—e. g. former military fields—to put pressure on local authorities to turn them into green spaces instead of starting building development (cf. 4.3.1). By physically ‘taking possession’ of the space, activists symbolically mark it as possible valuable urban meeting space for social interaction. Their action carries a political demand as it points to a lack of sufficient inner-city green spaces and to ongoing densification and soil-sealing.

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[8] This process is called "Syntheseleistung" (Löw et al. 2008, 6) which might be translated as 'attainment of composition'.

[9] The example of the NGO "Donne Nissà" in Bolzano (Italy) illustrates this process of 'Syntheseleistung'. When a member of the association passed an abandoned brownfield site belonging to the city, the idea was born to turn it into an urban garden. With this idea in mind, the association approached local authorities and received their permission for the project. The group of gardeners started to transform the space into an urban garden by recombining existing elements (soil, division of the whole space into beds for subgroups of gardeners and into common space) or adding new ones (fertile soil from outside, seeds, plants, gardening tools, rules for smoother interaction and communication between the ever growing number of gardeners), thus altering the existing space and creating a new one. So, after perceiving the potential of this space and after having created a vision for its transformation, this was put into practice.

If spaces are created repeatedly, they become institutionalised. The aforementioned process thus creates spatial structures that then shape—alongside political, economic, legal and temporal structures—the social structure (Löw 2001, 171–72). In the field of green spaces, we could for example speak of institutionalised urban green commons (cf. 2.2.1.2 and 5.2) as spatial structures, if local policy makers had recognised civil society’s legitimate role in participating in green spaces governance and had allowed for, fostered and perpetuated diverse forms of collectively caring for green spaces. This reasoning advances the duality of action and structure, as described by Anthony Giddens, stressing that space itself needs to be thought as social structure, meaning that “spaces do not merely exist, but […] they are created in (usually repetitive) action and as spatial structures, embedded in institutions, guide action” (Löw 2001, 172, author's translation). A historic example of how the creation of space by human action influences societal structures and ultimately leads to social change can be found in the Madrid citizens’ movement in the second half of the seventies (cf. 4.3.1). Currently, in cities where citizens create space, ‘reclaiming’ the city by protest actions in public space in order to direct attention to the lack of green spaces and related building speculation and privatisation trends, can open up public discussion about the use of space for different interests. This, to a certain extent, changes the societal structure, since citizens become aware that they can take part in designing their city. The implication of this could be that city populations then demand more citizen participation and options for self-organisation in other policy fields and not only green space governance.

2.2.1.2 Commoning

The concept of self-organisation (cf. 2.1.3) is tightly linked to the one of commons. Commons are “natural and depletable resources such as water, land and forest, as well as renewable, social or cultural resources such as seeds, algorithms, software, public space or the electromagnetic spectrum, all of which are considered to be jointly owned by a group of people, […] simply because they are elementary to our lives” (Silke Helfrich 2014, 90, author's translation). These features are what distinguish them from other goods. The conditions for successful governance of commons through self-organisation were carved out by Ostrom. They are not doomed to failure due to collective action problems, if certain rules are followed (Elinor Ostrom 1990, Ostrom 2005). Commons are collectively used and governed by commoners. They can be governed successfully because commoners have learned, and are able to self-organise and cooperate (Helfrich and Bollier 2014, 19). Harvey (2012, 79) describes commoning as a “mix of individual and private initiative […] [with the] local state [being] […] involved through regulations, codes, standards, and public investments, along with informal and formal neighborhood organization". This shows that in most cases, self-organisation, even if emerging alongside traditional governance structures, has to adhere to local regulations and can even be advanced by them.

Focusing specifically on urban green spaces, the urban green commons concept serves to describe urban commons linked to urban green space management. Johan Colding and Stephan Barthel (2013, 159) define urban green commons (UGC)

> “as physical green spaces in urban settings of diverse ownership that depend on collective organization and management and to which individuals and interest groups participating in management hold a rich set of bundles of rights, including rights to craft their own institutions and to decide whom they want to include in management schemes”.

While ownership of the land can vary (e. g. public or private) and different organisational structures exist (e. g. allotment gardens, community gardens), UGC are characterised by the fact that their management right lies in the hands of the group of users (Johan Colding et al. 2013, 1). UGC allow city dwellers to actively become engaged with urban nature by jointly taking care of urban green space, thus facilitating ecological processes (ibid). UGC emerge since urban green spaces are lacking and people, instead of acquiescing, become active locallyin order to bring about a change (Colding and Barthel 2013, 162). UGC counter "three dominant trends in cities – those of privatization of land, lowering contact between people and nature, and the impoverishment of ecological habitats and functions." (Colding et al. 2013, 1) They are therefore a major contributing factor to making cities more socially and ecologically sustainable (Colding et al. 2013, 11).

We have hitherto viewed the emergence of self-organisation, e. g. in the form of UGC, as a collective social process, not considering the individual. Yet, what are the individual's motives to self-organise in green spaces governance? Before approaching the question from the empirical stance, it is necessary to provide a theoretical basis explaining actors' motivation.

2.2.1.3 Actors' motivation

As mentioned in the introduction, in some places civil society actors have become a transition driver in the field of green spaces. So far, this paper has taken a sociological lens, shedding light on different forms of social innovation (self-organisation in general, social movements and citizen participation) in order to understand how social change in a SET becomes possible. Every explanation, however, remains incomplete without also considering the individual actor and specifically her[10] motivation to become active. The need to consider both the social structure and personal agency in order to explain human action is stressed in Bandura's (1997, 6) self-efficacy theory as part of social cognitive learning theory, which links psychological and sociostructural theories:

> "Social cognitive theory thus avoids a dualism between individuals and society and between social structure and personal agency. […] Human behavior cannot be fully understood solely in terms of either social structural factors or psychological factors. [...] The self is socially constituted, but, by exercising self-influence, individuals are partial contributors to what they become and do."

Thus, concentrating on the individual, Figure 2 and Figure 3 give an overview of different theoretical approaches that are helpful to explain actors' motivation for becoming involved in sustainability issues[11] Taking a philosophical stance, Martha C. Nussbaum's (1999) capability approach determines ten basic capabilities constituting human life. Taking a psychological perspective, Edward L. Deci's and Richard M. Ryan's (2000) self-determination theory circumscribes three basic human needs, and Daniel Katz's (1960) likewise needs-based functional approach to the study of attitudes carves out different functions that are fulfilled for the individual when assuming a certain attitude[12]. Some explanations of motives for civic engagement in social (E. Gil Clary et al. 1998) and environmental matters (Stanley T. Asah and Dale J. Blahna 2012; Richard C. Stedman 2002; Marianne E. Krasny et al. 2014 and Georgia Liarakou, Eleni Kostelou, and Costas Gavrilakis 2011) explicitly or implicitly refer to Katz' functional approach, whereas others do not (Helmut K. Anheier and Stefan Toepler 2001; Stephan Barthel, Carl Folke, and Johan Colding 2010). The common point of all approaches is that human behaviour is multi-causal, and thus cannot be explained by a single motive alone.

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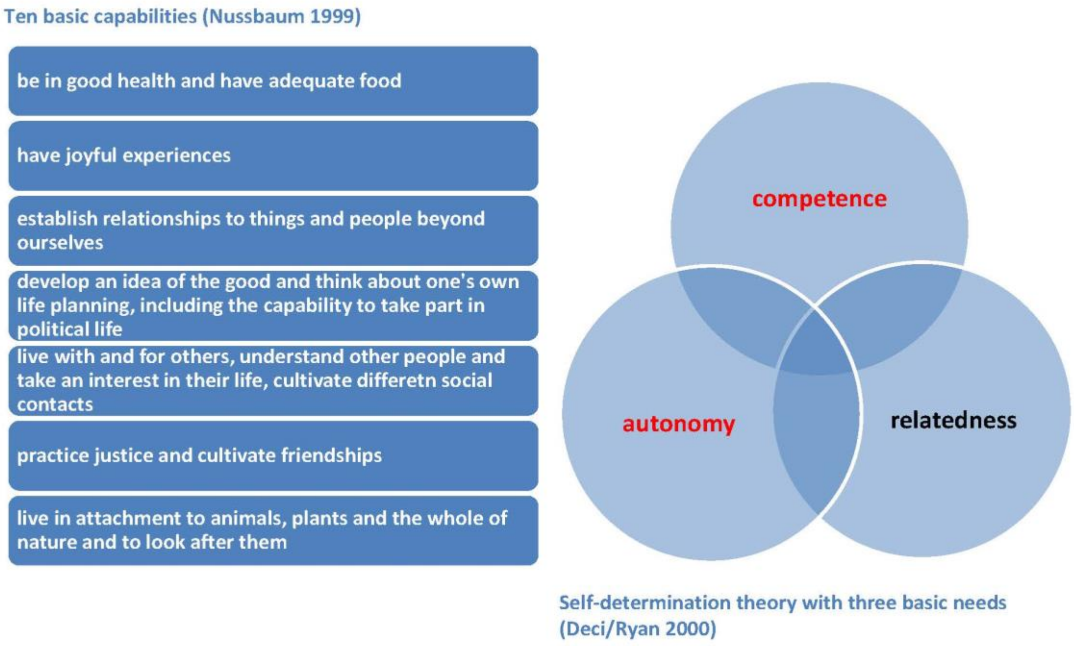
[10] In this paper the feminine form is used consistently, refering to men and women equally.

[11] Figure 3 is to be read as continuation of Figure 2.

[12] Katz's theory is not displayed explicitly in Figure 2 or Figure 3, yet since E. G. Clary et al. (1998) take his theory as a starting point to develop their model of social civic engagement, it should be acknowledged when investigating actors' motivations.



Ten basic capabilities (Nussbaum 1999)

- be in good health and have adequate food
- have joyful experiences
- establish relationships to things and people beyond ourselves
- develop an idea of the good and think about one's own life planning, including the capability to take part in political life
- live with and for others, understand other people and take an interest in their life, cultivate differetn social contacts
- practice justice and cultivate friendships
- live in attachment to animals, plants and the whole of nature and to look after them

Self-determination theory with three basic needs (Deci/Ryan 2000)

Figure 2: An overview of different theoretical approaches to explain actors' motivation for becoming involved in sustainability issues (1)

Source: Own representation based on Deci and Ryan 2000 and Nussbaum 1999

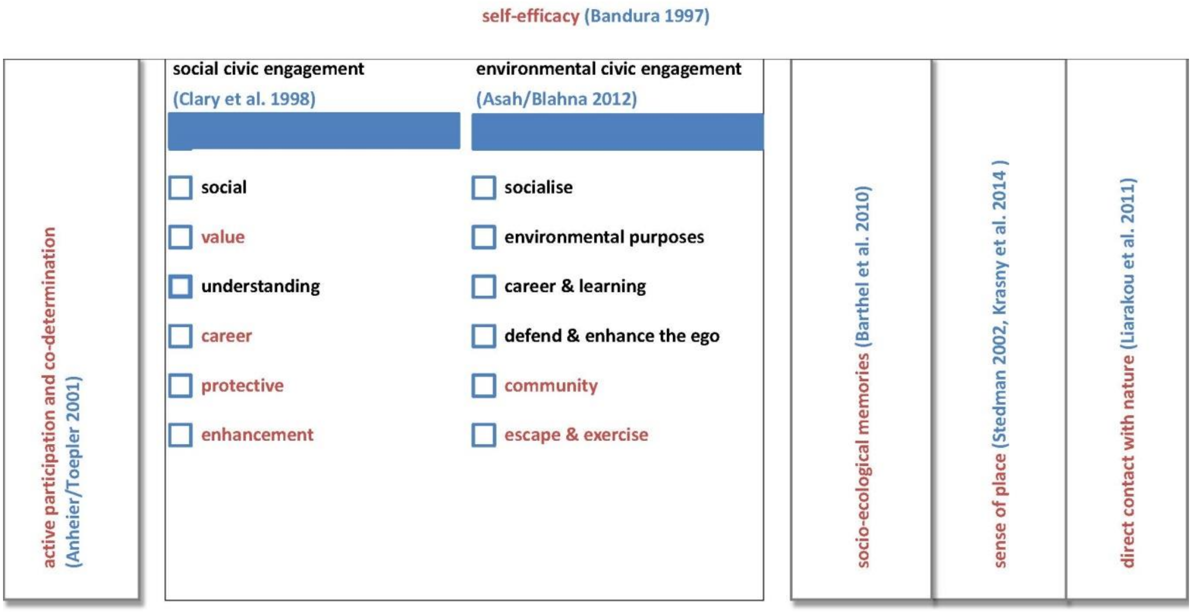

self-efficacy (Bandura 1997)
active participation and co-determination (Anheier/Toepler 2001)
social civic engagement (Clary et al. 1998)
social
value
understanding
career
protective
enhancement
environmental civic engagement (Asah/Blahna 2012)
socialise
environmental purposes
career & learning
defend & enhance the ego
community
escape & exercise
socio-ecological memories (Barthel et al. 2010)
sense of place (Stedman 2002, Krasny et al. 2014)
direct contact with nature (Liarakou et al. 2011)

Figure 3: An overview of different theoretical approaches to explain actors' motivation for becoming involved in sustainability issues (2)

Source: Own representation based on Anheier and Toepler 2001, Asah and Blahna 2012, Bandura 1997, Barthel et al. 2010, Clary et al. 1998, Krasny et al. 2014, Liarakou et al. 2011, and Stedman 2002

The items on Nussbaum's list of ten basic capabilities constituting human life are not distinct but interconnected, mutually influencing each other (Nussbaum 1999, 58, cf. Figure 2). Those relevant to understanding actors' motivation for becoming active in sustainability matters, including in the field of green spaces, are "the capability to be in good health and to have adequate food […], to have joyful experiences, […] to establish relationships to things and people beyond ourselves and […] to develop an idea of the good and to think about one's own life planning, including […] the capability to […] take part in political life." (Nussbaum 1999, 200–01, author's translation). The latter refers to "cognitive capabilities: perception, imagination, thinking […] the 'quest for knowledge', practical reasoning" (Nussbaum 1999, 52, author's translation). Also important are "the capability to live with and for others, to understand other people and to take an interest in their life, to cultivate different social contacts; the capability to practice justice and to cultivate friendships […]; the capability to live in attachment to animals, plants and the whole of nature and to look after them; […] [and] the capability to laugh, to play, to rejoice in relaxing activities" (Nussbaum 1999, 201, author's translation). To feel related to nature and animals implies to be aware of the fact that humans share with them a single world on which all depend and in which processes are linked and mutually influence each other and which should therefore be respected and taken care of (Nussbaum 1999, 54). This general list is fundamental to understand actors' motivations for engaging with sustainability and green spaces issues. Items of it reappear under different names and in more specialised form in the approaches displayed in the next paragraphs.

According to self-determination theory, “an understanding of human motivation requires a consideration of innate psychological needs for competence, autonomy and relatedness” (Deci and Ryan 2000, 227)[13]. These three basic needs are interrelated in so far as everyone “plays a necessary part in optimal development so that none can be thwarted or neglected without significant negative consequences” (Deci and Ryan 2000, 229). Whereas *competence* refers to the need “to engage optimal challenges and experience mastery or effectance in the physical and social worlds” (Deci and Ryan 2000, 251), *relatedness* means “to seek attachments and experience feelings of security, belongingness, and intimacy with others” (ibid). *Autonomy* refers to the need “to self-organize and regulate one’s own behavior (and avoid heteronomous control), which includes the tendency to work toward inner coherence and integration among regulatory demands and goals” (ibid), and it also “means to act volitionally, with a sense of choice” (Deci and Ryan 2008, 15)[14].

Clary et al. (1998) in their psychological functional analysis research on community service volunteers’ motivations, refers to the classic theories of attitudes (Katz 1960). The functional approach tries to understand which psychological functions for an individual are served by taking a certain attitude and performing a specific action accordingly. Katz (1960, 204) distinguishes

> “four functions which attitudes perform for the personality […]: the adjustive function of satisfying utilitarian needs, the ego-defensive function of handling internal conflicts, the value-expressive function of maintaining self-identity and of enhancing the self-image, and the knowledge function of giving understanding and meaning to the ambiguities of the world about us".

Clary et al. build on these four types, finding six functions determining volunteers’ motivations and stressing that a person is able to execute a single action simultaneously serving multiple psychological functions” (Clary et al. 1998, 1517). They isolate a specific *value* function: “One function that may be served by involvement in volunteer service centers on the opportunities that volunteerism provides for individuals to express values related to altruistic and humanitarian concerns for others." (Clary et al. 1998, 1518) The quite specific *career* function “is concerned with career related benefits that may be obtained from participation in volunteer work” (ibid). The *protective* function is about “protecting the ego from negative features of the self and, in the case of volunteerism, may serve to reduce guilt over being more fortunate than others and to address one’s own personal problems” (ibid). The *enhancement* function points to the idea that “people use helping as a means of maintaining or enhancing positive affect. […] Thus, in contrast to the protective function's concern with eliminating negative aspects surrounding the ego, the enhancement function involves a motivational process that centers on the ego's growth and development and involves positive strivings of the ego." (ibid) In a way it can thus be regarded as contributing to the ‘competence’ need. The remaining two functions are not new: *Understanding* “involves the opportunity for volunteerism to permit new learning experiences and the chance to exercise knowledge, skills, and abilities that might otherwise go unpractised” (ibid), and the *social* function” reflects motivations concerning relationships with others. Volunteering may offer opportunities to be with one’s friends or to engage in an activity viewed favorably by important others” (ibid).

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[13] Deci’s and Ryan’s self-determination theory has been widely recognised to explain motivation as linked to basic needs, replacing older approaches, such as the one of Abraham. H. Maslow (1943) who describes a hierarchy of five correlated sets of goals (basic needs), suggesting that the lower needs have to be satisfied before the higher ones evolve (Abraham H. Maslow 1943, 372–85). Yet, he explains that this hierarchy is not static but that the most prevailing goal will determine consciousness” (Maslow 1943, 394), meaning that needs can be co-existing and that the lower ones do not need to be fulfilled 100 per cent before the higher ones can emerge (Maslow 1943, 386). The five sets of goals are *physiological* (e. g. hunger, thirst), *safety*, *love*, *esteem* (to have self-respect and self-esteem which is partly built up by recognition from others and which leads to self-confidence (Maslow 1943, 381–82), and *self-actualization* (the wish for self-fulfillment (Maslow 1943, 383, 394). He also mentions cognitive needs such as the wish to learn (Maslow 1943, 384), yet without classifying them into the hierarchy. The author would like to thank Demis Basso for his hint to self-determination theory.

[14] The words in red in Figure 2 and Figure 3 point to motives that were not given in the preceding approach, e. g. Deci’s and Ryan’s *relatedness* need is implicitly mentioned in four of Nussbaum’s cited capabilities, whereas *competence* and *autonomy* are new aspects.

Motivational functionalism has also been applied to environmental volunteering, e. g. by Asah and Blahna (2012, 473), also finding six different categories of functions. All but one can be assigned to Clary et al.’s model, yet the naming and clustering are slightly different: Asah and Blahna also determine a ‘social’ function, calling it *socialise* and a ‘value’ function, specified as *environmental purposes*. Yet, they neither distinguish between an ‘understanding’ and ‘career’ function, fusing it into a *career & learning* function, nor do they distinguish between a ‘protective’ and ‘enhancement’ function, merging it into the *defend & enhance the ego* function. They make out two new functions: *community* and *escape & exercise.* The first is a specification that would fall under the ‘value’ and ‘enhancement’ functions, to do something for the common good[15]. The second refers to recreation/relaxation out of daily routines and sometimes linked to physical exercise.

Four further dimensions of motivation need to be added to understand environmental civic engagement. *Socio-ecological memories*, as carved out first by Barthel et al. (2010) and later by Krasny et al. (2014), are “means by which knowledge, experience and practice about how to manage a local ecosystem and its services is retained in a community, and modified, revived and transmitted through time” (Barthel et al. 2010, 256). People feel the need to pass on this collective memory to the next generation. Stedman (2002, 563) defines *sense of place* as “a collection of symbolic meanings, attachment, and satisfaction with a spatial setting held by an individual or group”. This means that people are attached to this place (Krasny et al. 2014, 18) and might take action, if they see ‘their’ place endangered. *Direct contact with nature* is carved out by Liarakou (2011, 660, 668) as an important motivation for environmental civic engagement. The fourth dimension refers to the capability ‘to take part in political life’ and is also linked to the ‘community’ function: Anheier and Toepler (2001) determine four different ‘bundles of motives’ for civic engagement (not specified to environmental civic engagement). Their whole approach is not presented here since when taking a closer look at the single motives clustered in the bundles, it turns out that they can be subsumed in Clary et al.’s and also in Asah’s and Blahna’s model apart from the motive of *active participation and co-determination*. This motive expresses the wish to actively participate in, co-determine and shape political and societal life and thus demands a higher degree of participation than the ‘community’ function. People become engaged in matters for the common good because they want to actively participate in and co-determine social and political life and to change societal drawbacks.

Bandura's (1997) self-efficacy theory explains why some people show more resilience than others in pursuing their activities even though encountering severe drawbacks. *Self-efficacy* is one factor why motivation is upheld over time despite severe hindrances. According to Bandura (1997, 3), “perceived self-efficacy refers to beliefs in one's capabilities to organize and execute the courses of action required to produce given attainments.” People with a high degree of self-efficacy show a higher degree of perseverance in performing a task (Bandura 1997, 160). To link up to the beginning of the chapter and to the relationship between the individual and society, it should be mentioned that Bandura (1997, 487) links the general individual concept of self-efficacy to the collective one of *political efficac*y. He does this by defining the latter as “participants' beliefs in their collective capabilities to accomplish social changes through political action". Whereas actors disposing of little political efficacy are more easily discouraged by minor hindrances, actors with a high degree of political efficacy believe even in a possible change of the most rigid political system through joint efforts (Bandura 1997, 485). The upholding of this sense of efficacy even in cases of severe drawbacks is explained by actors' support from their community (Bandura 1997, 523), as well as by their strong belief in their value system which makes them act against societal conditions that contradict their moral standards. They accept even severe difficulties resulting from their actions because remaining inactive would heavily impair their self-respect (Bandura 1997, 489). Here we recognise the 'value' and 'protective' functions.

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[15] Asah and Blahna (2012, 473) group the following constitutive items in it: “To show my community that I care”, “To feel connected with my community”, “To show that I can make a difference” and “To give something back to my community”.

2.2.2 Power, democracy and public space

Theory of space starts from conceiving space as a general category, yet in the scope of this paper the interest specifically lies in public spaces. From an urban sociological perspective, public spaces are the city's figurehead. They do not exist by themselves but are only created by their users out of inner city spaces (Martin Klamt 2012, 778). They function as "places of communication, of exchange and generally of interaction between diverse social groups. Public spaces are spaces of learning in which people have the opportunity to getting to know each other, learn to handle conflicts, and learn mutual respect and tolerance. As political learning spaces public spaces should enable diversity of opinion." (Alexander Hamedinger 2013, 131, author's translation). This definition omits the fact that space is a social structure, created by human action, and that the process of creating space is also subject to power relations (Castells 1983, 311). Constituting spaces in action is usually a negotiation process between actors with mostly diverging interest. Negotiating power structures is a central component of this process. However, different societal groups do not have equal opportunity to take part in this process of space creation. This is because access to social goods such as money, knowledge, social position or belonging to a specific social group is the precondition for arranging these goods relationally in a place—to create space (Löw 2001, 217–18). Therefore, disadvantaged groups have less options to design or alter spaces (Löw 2001, 212). This inequality, paired with the option of different groups creating several spaces in one place, makes urban public spaces particularly prone to becoming conflict sites for societal subgroups' struggle for equality (Löw 2001, 64; Löw et al. 2008, 65). Social movements can modify urban-spatial structures by questioning their meaning and reinterpreting their functions, thus triggering social change by assuming the role of "agents of urban-spatial transformation" (Castells 1983, 312). The diverse creative actions of urban gardeners who "plant fruit trees, establish mobile gardens or, as 'guerilla gardeners', throw 'seed bombs' into what activists view as badly used open spaces" (Barthel et al 2013, 9) can be considered as campaigns about the creation of urban space and against predominating power relations.

2.2.2.1 Disappearance and loss of public space – privatisation

The commodification and subsequent privatisation of public spaces, resulting in their disappearance, can be considered as a spatial structure (Löw 2001, 217). These processes render spaces "a strategic resource as wealth in the societal relative strength" (ibid). For green spaces governance this means that greater attention is often paid by political actors to the voice of economic in local development options on public spaces and neighbourhoods (Hamedinger 2013, 128). This way, economic actors "contribute to the definition of public spaces and the determining of behaviour in the same, which often leads to the exclusion of non-consumption oriented and non-utilisation-oriented behaviour in public spaces" (ibid, author's translation). The empirical section provides examples of this trend, which manifests itself for example in Istanbul, with the building of mosques with underground shopping malls on public green spaces. The commodification of spaces reaches its climax, if for example in real estate speculation land is sold to make the most profit possible disregarding the housing needs of less well-off parts of the population (cf. 4.3.1, Harvey 2012, 28–29).

2.2.2.2 (Re)appropriation of public space – defending green spaces

According to Löw (2001, 227, author's translation), change in spaces can occur through “the creation of own institutionalised arrangements […] in opposition to the dominant culture […] which opens up individual courses of action and can […] lead to changes in societal structures”. The creation of urban commons through citizens’ action can be considered as such a change in space, challenging existing power structures and strengthening democratic processes, since grassroots political action is needed to appropriate public spaces (Harvey 2012, 73)[16]. Commons do not merely exist but are created when “people jointly use and cultivate resources, to negotiate rules, to appropriate the world without taking it into possession” (Die Armutskonferenz 2013, 10, author's translation). The multiple crisis since 2008 and subsequent austerity policies have aggravated tendencies of commodification and privatisation, also known as ‘enclosure’[17]. (Helfrich and Bollier 2014, 18). The emerging interest in and increased creation of urban commons results from this, with commoners defending one of the basic principles of commons, which is their collective and non-commodified use (Harvey 2012, 73).

2.2.2.3 Urban food production as one form of productively reappropriating public space

The urban gardening movement in European cities has attracted notice to urban food production. In contrast to Europe, in other parts of the world urban food production has never decreased, and has even been expanded. In African cities for example, for a large share of the population, private food production for self-consumption has always been a means of ensuring food sovereignty[18]. In Cuba, due to the decades-long embargo, the greater Havana area has developed into a metropolis of organic commercial and subsistence food production, with cooperatives playing an important role, feeding the population with fresh fruits and vegetables (Carey Clouse 2014, 21, 24, 41). It is increasingly recognised (e. g. Barthel et al. 2013, 8) that European cities also need to be rethought as food production sites as one option to safeguard green spaces in cities and to keep and transmit the knowledge of growing food, which cannot be achieved without the active involvement of civil society actors.

As the empirical examples show (cf. 4.3), civil society has the power to influence the local governance of green spaces. Joint food production in urban public spaces is one way of doing so, by implicitly demanding a city with sufficient green spaces for its inhabitants, accessible to everyone at no cost (Christa Müller 2014, 269). This demand results in immediate concrete action on the spot. Very often local claims are also connected to global issues. Besides educating and informing the public of the value of land as common good, action creates a discourse around the global issue of food sovereignty and sustainable agriculture (cf. 4.3.2.2). This is a concrete example of what Ulrich Beck (2000, 48), following what Roland Robertson called ‘glocalisation’. If local movements take up global concerns, this shows that “globalization – which seems to be the super-dimension, appearing at the end from outside and overshadowing everything else – can be grasped in the small and concrete, in the spatially particular, in one’s own life, in cultural symbols that all bear the signature of the ‘glocal’” (Beck 2000, 49). When local urban gardening groups inform and educate through actions like seed swapping for global issues such as decreasing biodiversity substantially caused by the market power of a handful of big corporations, the global becomes a local issue. At the same time the local becomes global, if these groups become interconnected with others around the world, facilitated by new media. Therefore, local concerns must be regarded as part of global ones (Beck 2000, 48–49).

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[16] He gives the example of the Syntagma Square in Athens, the Tahrir Square in Cairo, and the Plaza de Catalunya in Barcelona that were transformed into urban commons when people gathered on them to express their opinion and to call for changes (Harvey 2012, 73).

[17] In the field of green spaces enclosure signifies cutting back citizens’ rights for green spaces which are disproportionally used for commercial purposes (Helfrich and Bollier 2014, 16).

[18] Food sovereignty is to be distinguished from food security. While the latter refers to “the amount and possibly the quality of food that is available to the people of a country, it however does not say anything about how and by whom this food is produced, who distributes and consumes it. Therefore, it hides production conditions, power and dominion conditions.” (Irmi Salzer 2013, 281, author's translation). By contrast, food sovereignty “is the right of all people to good and culturally adapted food which has been produced via sustainable production conditions as well as the right of the people, nations and community of states to determine their food and agricultural policy themselves” (ibid).

3. Methodological approach

The research draws on a mixed method approach, with a focus on qualitative data. Interviews from civil society, economic and governmental[19] actors from 29 cities in twelve EU and two non-EU countries form the main corpus of analysis and are triangulated with quantitative data and data from desktop research. The analysed data was obtained within the scope of the ROCSET project, which had also defined the selection choice strategy for cities and respondents[20]. The data was collected from June to October 2013. While the overall research in the ROCSET project draws on a mixed methods approach, with equal weight of quantitative and qualitative data, for this paper the focus is laid on the latter, while using complementary quantitative data and desktop research. There are two reasons for this: A pragmatic one emerges from the research design of the ROCSET project. While the qualitative data for the resource system of green spaces obtained covers 55 respondents' answers from 29 cities, the quantitative one covers 167 respondents—including the ones from the qualitative part—from all 40 participating cities. Although there might be no major deviation comparing the quantitative sample of 40 to the one of 29 cities, it must be kept in mind that the quantitative data drawn on covers this bigger sample. The second reason derives from the research design for this paper. In the data analysis phase of the ROCSET project, the three major strands described below (cf. 4.3) became evident. To answer this research's underlying questions, the qualitative data delivers more profound insights. Nevertheless, the quantitative one is very valuable since it is drawn on to cross-check hypotheses.

The sample of 55 semi-structured expert interviews[21] consists of one to four interviews per city and stems from 29 cities from all four European regions—14 countries (cf. Figure 4 and Table 1). All but two cities belong to the European Union[22]. All analysed interviews focus on the research system green spaces. Whereas only four interviews with politicians and three with civil servants were conducted (13 per cent), 21 stem from the economic sector (38 per cent) and the majority (27, thus 49 per cent) were obtained from civil society respondents. In all three sectors less women than men were interviewed (69 per cent male and 31 female respondents).

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[19] The data obtained from governmental actors includes information from local politicians and civil servants.

[20] For a detailed description of the research strategy and design, including the choice of the city sample, the selection of the interviewees and of the research focus for each city cf. Sauer et al. (2015, 28–47)

[21] The interviewees hold key positions within the local government, the economic sector and civil society. They were asked about their personal involvement in local sustainability matters and their motivation for becoming involved, about challenges to urban sustainable development and about defining factors, actions and actors for urban sustainability. The interview guide then continued with a section specific to the resource system green spaces. They were questioned about the state of local resources, access and participation in local resource governance, lessons learned from local resource management; room for local autonomy, room for self-governance, strategy sustainability goals, policy instruments and rules missing or needing to be changed.

[22] Aalborg, Bilbao, Copenhagen, Cracow, Dortmund , Gothenburg, Glasgow, Innsbruck, Istanbul, Jihlava, Larissa , Leeds, Linz, Lodz, Lublin, Lugano, Madrid, Milan, Naples, Paris, Potsdam, Rome, Saarbrücken, Sibiu, St. Gallen, Strasbourg, Thessaloniki, Timisoara and Umea

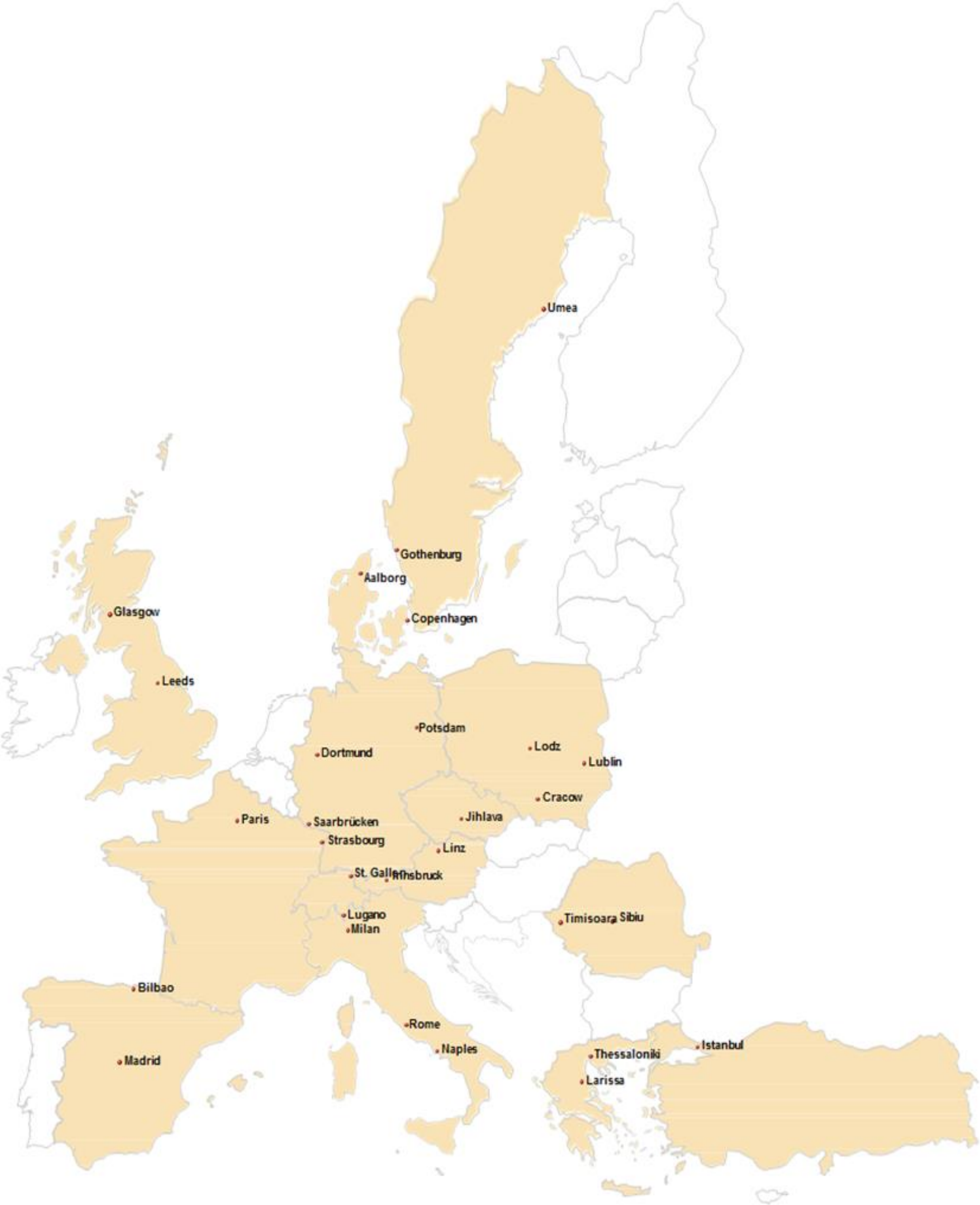
Umea
Gothenburg
Aalborg
Copenhagen
Glasgow
Leeds
Potsdam
Lodz
Lublin
Dortmund
Cracow
Paris
Saarbrücken
Jihlava
Strasbourg
Linz
St. Gallen
Innsbruck
Lugano
Milan
Timisoara
Sibiu
Bilbao
Rome
Naples
Istanbul
Thessaloniki
Madrid
Larissa

Figure 4: Map of 29 selected cities

Source: Share Map (2015)

Table 1: Countries in European regions

Region	**Country**
Northern Europe	Sweden, United Kingdom, Denmark
Eastern Europe	Poland, Czech Republic, Romania
Southern Europe	Turkey (Istanbul), Greece, Italy, Spain
Western Europe	France, Switzerland, Austria, Germany

Source: United Nations (2012)

For data analysis and interpretation, a coding system was elaborated, emanating from Ostrom's (2007, 15183) institutional analysis development framework for examining a socio-ecological system, which was then supplemented with codes emerging from the specific research questions. Along with this coding system, the data was analysed and interpreted with the help of qualitative content analysis. The qualitative data was then triangulated with the quantitative questionnaires as well as with the data from desktop research. The first refers to 41 questionnaires filled in by administrative actors, 63 by economic actors and 63 by civil society actors. The latter refers to 29 case study reports—one per city (Cristina Garzillo and Peter Ulrich 2015) that portray the respective state of SET with a section on characteristics of the resource system green spaces through the eyes of the field researcher[23]. The reports are thus based on the field researcher's on-the-spot-experience and their incorporation of a wide array of sources, such as reports, newspaper articles and websites on the respective city.

Considering the fact that due to the research design of the ROCSET project, one to four interviews were obtained per city. It is important to understand that this paper does not follow a case study approach in the sense of an in-depth inter-city comparison of a reduced sample of cities. The data obtained does not lend itself to such an approach. The aim of this paper is to present the state of ongoing civil society action in the field of green spaces across 29 cities, without profoundly analysing one specific city. Every city is in a sense a unique case for which only tailor-made solutions can be found. Nevertheless, learning from similar cases is valuable for each city's path of sustainable development. Comparisons can be made and lessons drawn for a city's future transition strategies by displaying 'best practices' of civil society activity and interaction with other sectors from the examined city sample.

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[23] The report contains a general city profile, providing background information, giving factual data on size, population, climate, special characteristics, etc. and providing information on basic government/administrative structure as well as on economic conditions (growth trend, key business and industries, employment, etc.). Furthermore, local lifestyle and key challenges and trends (economic, social and environmental ones) are addressed. Apart from that, a sector specific synthesis for water, energy and green spaces refers to availability, affordability and consumption levels, key issues, key actors/partnerships and key actions/measures/initiatives. Governance and citizen participation is also looked into, specifically multi-level governance (province, national, EU) and participation and bottom-up action. Finally, trends and challenges for the future are outlined. A compilation of the reports is published on the wwwforeurope project's website Garzillo and Ulrich (2015).

4. Empirical results

4.1 Results from ROCSET

The research in the ROCSET project revealed that citizen participation and self-organisation happens more easily and is more common in the resource system green spaces than in the other observed resource systems energy or water due to a high level of local autonomy in this field and to the tangibility of green spaces.[24] The qualitative data analysis delivers examples for all stages of citizen participation and self-organisation. Yet, only *consultation* and *self-organisation* are mentioned in all regions. Altogether, the **involvement of citizens[25] in green spaces governance** is rated as non-existent or low by actors from several cities (e. g. Bilbao, a4, 40-47, 52–54, 92; Gothenburg, a3, 75-80; Sibiu, a3, 85–91 and a4, 109, 114–115, 120-122; Strasbourg, a4, 117-122). This is either because no participatory options are offered, or when enshrined in the legal framework and also offered, they are not adopted well by citizens. Expert knowledge of civil society can deliberately be ignored, as in the case of Timisoara where a NGO provided knowledge on the city's richest green space and biodiversity site next to the river and advised local authorities not to seal and build on this green/ecological corridor, yet without success (Timisoara, a4, 98–100). Nevertheless, other actors see citizens involved in green spaces governance via participatory measures and report that they contribute to green spaces governance by self-organising (e. g. Bilbao, a3, 57-58, 82–84, 103-108; Copenhagen, a2, 79-81, 93-94 and a3 37; St. Gallen, a4, 9; Timisoara, a3, 155-161). For example, in Lublin a consultative committee at the mayor's office made up of civil society and economic representatives was created (Lublin, a4, 16–24)[26].

The preceding paragraph shows that citizen involvement is rated differently by actors, even from the same city. Also keeping in mind the low number of actors consulted in each city, no conclusions for the individual cities can be drawn. Yet, when also taking into consideration the quantitative data and the case study reports, one can say that the degree of citizen participation and self-organisation varies greatly across cities due to historically grown national and regional differences in legal frameworks, in political and economic conditions and due to different urban contexts. The **regional differences** (cf. Figure 5 and Figure 6) suggest a higher degree of civil society's action and of interaction between civil society and government in Northern Europe in comparison with the remaining regions. The figures also back the hypothesis that civil society's impact on the governance of green spaces is lowest in the East. Only in the North are civil society groups involved with green spaces common, with local government and civil society tightly collaborating.

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[24] For a more detailed explanation cf. Sauer et al. (2015, 141–45)

[25] The notion 'citizen' is understood in this paper as including everyone residing in the respective city, irrespective of her nationality or residence status. This differs from more traditional definitions that do not grant the status of citizens to irregular migrants or to migrants with a non-clarified residence status. This points to a general problem of participatory tools: if participation is based on electoral lists, citizens without voting right are excluded, as also mentioned by one actor (Strasbourg, a4, 93-106).

[26] An overall display of citizen participation and self-organisation in the resource system green spaces in these 29 cities is given in Sauer et al. (2015, 86–94).

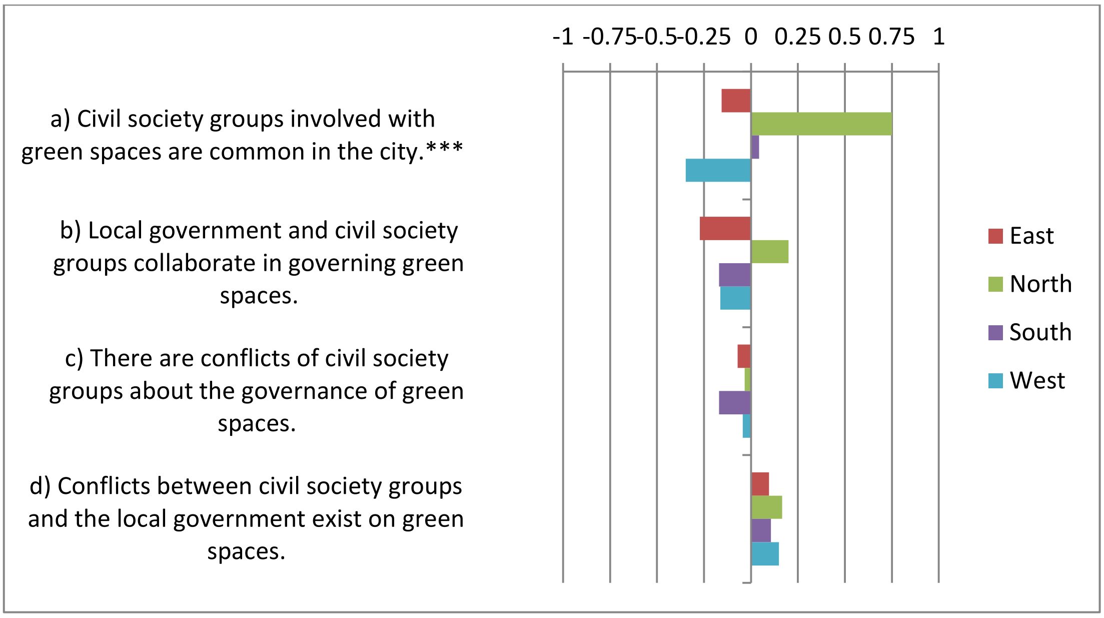

Figure 5: Regional differences in civil society involvement in green spaces governance (scaled from -2: strong disagreement to 2: strong agreement)[27]

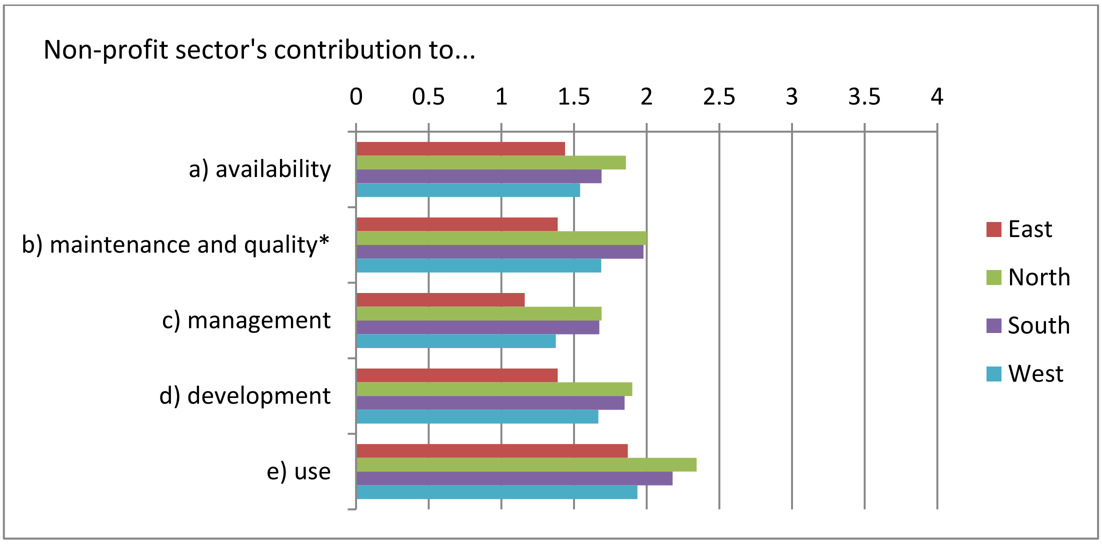

Figure 6: Regional differences in the contribution of the non-profit sector to green spaces (scaled from 0: none to 4: very high)

These quantitative tendencies connect to the qualitative finding that all factors for successful self-organisation and participation were mentioned either in Northern, Western, or Southern Europe and are also backed by the case study reports: 15 cities, that is about half of all observed, could be classified as disposing of a very active civil society in the field of green spaces. Seven—about one fourth—were observed to have an active civil society and another seven a less active one. With six Eastern and six Northern cities in the sample, as well as eight Southern and nine Western ones, it is interesting to see that the majority of cities from all regions except the East can be classified as having a very active civil society. In these cities the degree of civil society action as well as cooperation between civil society and local government in the field of green spaces is highest. Yet, these indications should be interpreted cautiously as a sample of 29 cities covering the four European regions cannot be considered to be representative in the quantitative sense and because the qualitative data indicates forms of participation and self-organisation for every region (Sauer et al. 2015, 86–94).

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[27] When looking at the quantitative results represented in these figures, it has to be remembered that respondents come from all 40 cities, not only from the 29 examined ones in the qualitative part of the research. Thus, the answers might vary for this smaller sample.

When examining the factors for successful self-organisation and participation it is noticeable that most given factors are identical with the ones referred to as factors for a successful SET, suggesting that the latter is closely connected to self-organisation and participation. This supports the paper's underlying hypothesis that a SET in the field of green spaces in European cities is not feasible without the strong participation and self-organisation of civil society actors. Yet, confirming this requires a detailed empirical display of civil society actions in the cities, carving out their occurrence, different forms and underlying motivations. The data reveals that civil society actions centre around three main topics, namely *self-organising in reaction to the reduction of green spaces for building and infrastructure development*, *urban food production* and *new coalitions to take care of public green spaces,* which will be analysed and interpreted. Yet, keeping in mind the research questions, firstly light will be shed on respondents' motivations to commit themselves to sustainability issues in the respective city in general. No respondent had difficulties in explaining her involvement in and motivation to deal with local sustainability issues, showing that the chosen interviewees can be truly considered as local experts (Sauer et al. 2015, 30–31). Defining, displaying and understanding actors' motivations can give important hints to local governments on how to best set incentives to involve all local actors in local governance for sustainability as well as how to keep and possibly even raise their commitment. Moreover, since in the following section local actors' motivations from different sectors are analysed and juxtaposed, this might help to develop sector-specific motivation strategies.

4.2 Local actors' motivation

Knowing actors' motivation helps to explain behavioural changes in a SET. Therefore, the interviewees' motivation to deal with sustainability issues in general is displayed[28]. One question in the interview directly refers to the respondent's personal motivation to get involved with sustainability issues and another one to the beginning and extent of their involvement[29]. Answers to these two questions often overlap. The timespan of dealing with sustainability issues ranges from four to up to 40 years, and more than half of the respondents indicate that they have been involved for more than twelve years.

Given answers for the motivation can be clustered into seven thematic fields emerging out of the data, keeping in mind that these are not hermetically closed categories but often overlap: Most often respondents' answers fall into the category *wish to change something*, followed by the one of *creating awareness*. An equal amount of given answers can be clustered into the categories *job-relatedness*, *personal interest* and *emotions*, followed by *civil society's corrective power* and *legal framework.*

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[28] The sample includes answers from politicians, civil servants, economic and civil society actors (cf. 3.)

[29] "To what extent are you involved in sustainability issues in [name of city]?" and "What was your motivation to get involved with sustainability in [name of city]?, "When did your involvement start?"

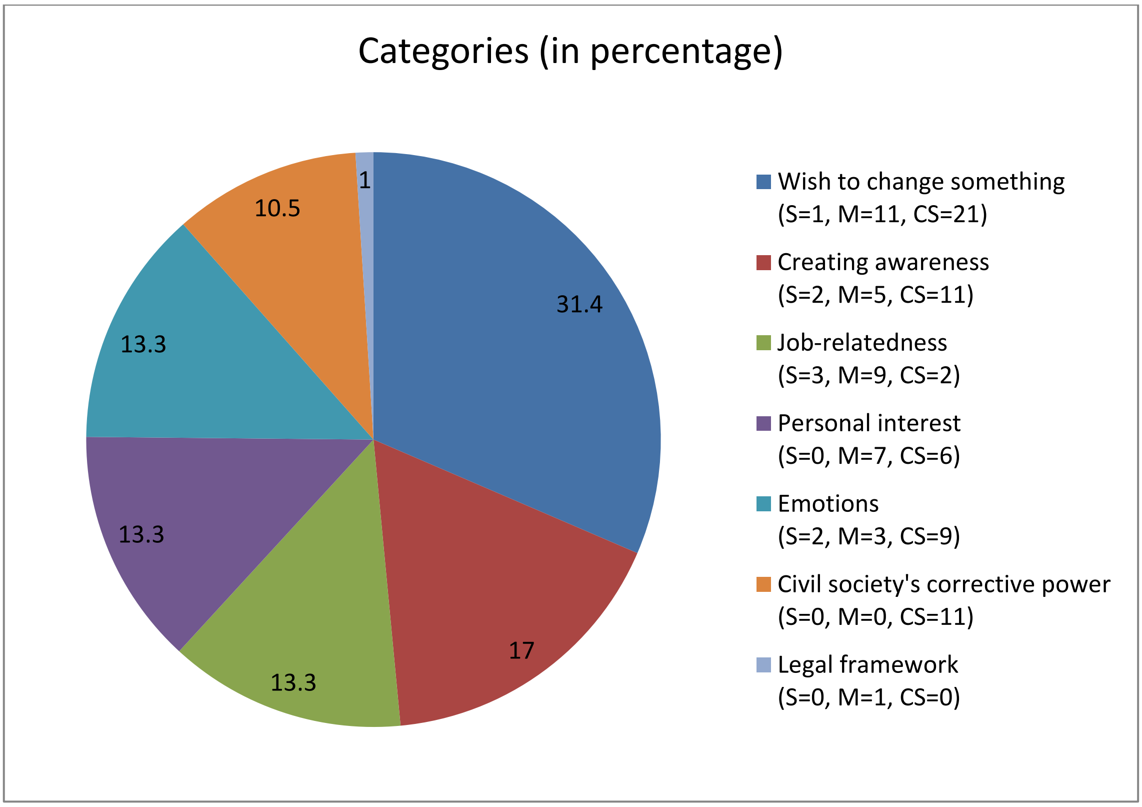

Figure 7: Personal motivation to get involved with sustainability

(N=55: 7 state actors (S), 21 economic actors (M), 27 civil society actors (CS))

Apart from the categories ‘job-relatedness’ and ‘legal framework’ all the others can be assigned to one predominant motivation category (cf. Figure 2, Figure 3, and Figure 8). Motives like striving for wealth, power or profit accumulation are never mentioned. Although the sample is not representative and state actors are underrepresented, it is interesting to notice that only one of the state actors’ answers can be clustered into the category ‘personal interest’, suggesting that state actors tend to deal with sustainability issues because their job requires them to do so and not necessarily out of personal conviction. The categories ‘wish to change something’, ‘emotions’ and ‘creating awareness’ are clearly headed by civil society actors. The category ‘civil society’s corrective power’ is exclusively named by them. The following paragraphs shed light on the respondents’ motivation by displaying their answers clustered into sub-categories and relating them to the theoretical framework.

Mainly respondents from the ***economic*** sector deal with sustainability because it is part of their **job**. This is so because sustainability topics seem to have become *inevitable* for companies. Sustainability issues need to be taken into consideration if a company wants to be successful in the market (Bilbao, a3, 21–27, Innsbruck, a3, 28–29, Linz, a3, 16–17). Also, state actors need to deal with sustainability due to its high influence on urban development, having become transversal and tightly linked to the political agenda (Copenhagen, a2, 20–21). The concept has become so widespread that it is impossible not to take it into consideration (Cracow, a1, 27–28). Therefore, when asked for their motivation, many respondents name in first place their *position,* which requires them to deal with sustainability (e. g. Cracow, a3, 29–31; Saarbrücken, a3, 13–18). Two respondents *earn a living* from sustainability issues (Umea, a3, 23–25; Lublin, a4, 55–56). The aforementioned suggests that the sustainability discourse has been mainstreamed into political and economic discourses and cannot be circumvented easily.

Sometimes the **legal framework** can be an additional motivating factor to become committed to sustainability issues, as in the case of the respondent owning a piece of land in a city for which the land development plan only foresees agricultural use, inducing him to rent allotments to families for food production (Milan, a3, 24–25). Here, the administrative circumstances are such that they foster sustainable action of individuals, even if these individuals do not yet act out of intrinsic motives.

The **wish to change something** is clearly a motivation factor for ***civil society*** actors and to a slightly lesser extent also for ***economic*** actors. Respondents state that they *want to contribute to a more sustainable world* by being acting locally (e. g. Bilbao, a3, 37–38; Jilhava, a4, 28–31; Paris, a4, 18–19). Only civil society actors express the need to *preserve* biodiversity as well as *the livelihoods of future generations* (e. g. Dortmund, a4, 22; Lublin, a4, 57–61; Saarbrücken, a4, 16–17). They name, for example increasing pollution of the environment and the immense ongoing biodiversity loss (Copenhagen, a3, 21–23; Bilbao, a4, 25-26). A more energy efficient and resource conscious way of living and running the economy to reduce raw material consumption and waste is proposed (Aalborg, a4, 21–232; Sibiu, a4, 43–46) to reduce harming the environment. Some see the *survival of humanity as* endangered, if no action is taken. They consider the sustainable development approach the right thing to do and believe that action at lower levels—i. e. down to the local level—can supplement global action (e. g. Bilbao, a3, 21–27; Lodz, a4, 20–21). Numerous actors explicitly refer to everyone's *individual responsibility* to change behaviour and to become committed to sustainability issues (e. g. Bilbao, a3, 21–27; Leeds, a3, 32–33). Respondents are worried about their carbon footprint and the way the economic system works (Bilbao, a3, 21–27; Leeds, a4, 26–29), which can lead to making sustainable choices in their private consumption as well as to following sustainability criteria in their business, such as in building construction or waste recycling, even if it augments costs in the short term (Gothenburg, a3, 14–15; Lugano, a3; 32–37). Some feel the need to immediately change something (e. g. St. Gallen, a4, 9) and therefore inform and remind people of their personal responsibility, even knowing that their action might only have small effects (e. g. Glasgow, a4, 29–32; Lublin, a4, 57–61). This category points to the ***value*** and ***environmental purposes*** functions. Respondents have internalised environmental protection as a core value and act accordingly. Referring to the statements about individual responsibility, there is also a reference to the ***protective*** function. Having acknowledged their individual responsibility, they would feel guilty not to act accordingly.

The wish to create awareness is a key motivation factor for civil society actors. Some experienced key moments very early in their life that triggered their commitment to sustainability, which illustrates the importance of starting education for sustainability at an early age. For example, one respondent's attention was caught by her primary school teacher during a school trip when the issue of smog hanging above the city was highlighted. This led her to decide to become active in protecting the environment (Larissa, a4, 31–32). Another one chose to work on environmental topics professionally after having done a course on environmental education at primary school (Rome, a1, 27–28). A third person was pushed into environmental activism by seeing the beauty of a field on the city's fringe area, knowing that its continued existence was under threat due to extreme building development pressure (Lugano, a4, 15–22). These examples show the importance of an individual's capacity to live in attachment to animals, plants and the whole of nature and to look after them. People that have developed this capacity in early years are more prone to an increased level of awareness towards sustainability issues. The importance of creating awareness via knowledge transmission and education is only mentioned by civil society and economic actors. One respondent points to the fact that his inherent love of nature, which he already felt as a child, was fostered by his parents, and now as an adult he is still learning about concepts to advance sustainability (Copenhagen, a3, 21–23). The importance of transmitting knowledge to people of all ages is recognised by numerous actors. Children must be educated in environmental matters (Bilbao, a3, 21–27). Hands-on, close to nature activities can be one way of doing this: one respondent rents allotment gardens to make people and especially children understand nature by growing vegetables, so that “they have to respect the environment in all aspects of everyday life” (Milan, a3, 20–23). Respondents feel that they have to inform people about sustainability issues and to remind them of their individual responsibility. They therefore get involved in environmental groups that offer, for example, open meeting space for joint learning (Bilbao, a4, 22-24; Dortmund, a4, 22; Lublin a4, 57–61; Potsdam, a4, 50–55). Besides these examples of informal education, some respondents have chosen a more formal way of teaching sustainability issues in educational institutions. The joint idea behind this is to make students deal with the sustainability topic, to internalise it and ultimately to apply it in their jobs and/or daily life (Lugano, a3, 38–46; Gothenburg, a4, 14–15; Sibiu, a4, 43–46; St. Gallen, a4, 9). One respondent stresses that technical knowledge is insufficient for advancing sustainability, if it is not combined with people’s motivation and desire for a change in behaviour, which can be reached through information, particularly of an interdisciplinary nature (Copenhagen, a4, 18–20). These actors actively want to participate in societal life and co-determine it in order to shape it through transmission of their knowledge or through education. This is because they have understood the importance of knowledge for creating awareness and subsequent behavioural changes. The theoretical approaches provided in Figure 2 and Figure 3 do not provide a specific motivation category for this aspect. The most likely is that it could be subsumed under ‘active participation and co-determination’. However, considering that the empirical data displayed in this paragraph reveals that this is an important motive, falling into ‘creating awareness’ as the second most often named category—it is deemed necessary to add an additional category of “knowledge transmission/education to create awareness” to the overview of approaches in order to explain actors’ motivation for becoming involved in sustainability issues (cf. Figure 9).

Personal interest in sustainability issues is a strong motivation factor, yet almost solely for ***economic*** and ***civil society*** actors. This interest can sometimes be traced back to childhood (Copenhagen, a3, 21–23), and numerous actors state that they chose either their study field, profession, work place or volunteer activity explicitly because it has to do with sustainability issues (e. g. Madrid, a3, 22–23; Thessaloniki, a3, 25–26; Istanbul, a4, 13–16; Naples, a4, 22–24). Two respondents emphasise that they chose their profession because it provides them with the opportunity to put personal convictions into professional practice, expressing their wish to have a meaningful profession, which advances sustainability (Madrid, a3, 22–23; Linz, a4, 18–19). Here, we can again recognise the ***value*** function as well as the ***environmental purposes*** function[30].

Emotions primarily motivate ***civil society*** actors. Two of them name their *worries* and *fears* about existing threats to the environment, which induce them to become active (Leeds, a4, 26–29; Lugano a4, 15–22). This points to the ***relatedness*** need which includes to “ […] experience feelings of security […]”, a need that gains importance in a world that has to cope with multiple globalised risks of modernisation, amongst which ecological ones take a big share (Ulrich Beck 2009, 21–22). Another respondent feels deep *anger* and *fury* when perceiving that human action is destroying nature. Two respondents manage to transform their negative feelings into proactive commitment, which helps them to cope with the persisting threats. One actor from Copenhagen stated: “I turned my anger into something constructive […] I could not resign myself to just be ‘pissed’, I had to act positively on it.” (Copenhagen, a3, 21–23). The second actor is from Leeds (a4, 107–110). Here the ***value,*** respectively the ***environmental purposes*** function, can be recognised, which is so distinctive that it leads to strong feelings provoking activism. These people have managed to turn their concern for the common good and the state of the ecosystem, as well as their own initial frustration because of it, into a proactive energy instead of falling into a state of resignation. One actor explains his motivation by the sense of obligation to serve his country, which includes becoming engaged in local politics, which encompasses dealing with sustainability issues (Istanbul, a1, 59). Here, the ***value*** function can equally serve as an explanation. In this case the primary value referred to is *patriotism,* which includes the need to protect one's country's environment. Actors' involvement in the field of green spaces is often enriching for them personally, since they see themselves as in a continuous learning process. Being committed to sustainability issues is personally *satisfying* (Istanbul, a1, 58–59; Timisoara, a3, 30–39; Leeds, a4, 107–110) and thus is connected to the ***enhancement*** function. Last but not least, motivation increases when actors experience that their action has an impact, as small as it might be. Not feeling like the helpless victim at the mercy of ongoing inevitable environmental degradation, but experiencing a state of *self-efficacy* via actively coping with existing sustainability challenges despite drawbacks, seems to be an important motivation factor, primarily for civil society actors. Respondents believe that their actions can make a difference (Milan, a4, 19–20). They are proud that set goals have been reached despite adverse circumstances, and they ascribe this success to their strong will: "We have been taught that nothing can stop us! […] Also that whatever the goal was every time, we have managed to achieve it, with more or less effort" (Thessaloniki, a4, 61–62). These people have experienced that they are capable of acting and reaching set goals. This high degree of self-attribution is closely linked to a positive attitude, which is upheld even if only small results have been reached. Positive thinking is maintained, as is believing in a constructive collaboration with other local actors from different sectors: "We can come together constructively" (Istanbul, a4, 51–56, 59–60). They prefer to become active and assume responsibility themselves, instead of waiting for others to do so. Speaking with Bandura (1997, 524), they have a high sense of ***self-efficacy***, having understood that small actions at the local level are not a drop in the ocean but that "global effects are the products of local practices. Each person, therefore, has a part to play in the solution. The strategy of 'Think globally, act locally' is an effort to restore people's sense of efficacy that there are many things they can do to make a difference." (Bandura 1997, 524) Actors are motivated to develop further actions when they see that initiatives succeed and that lots of citizens are also participating in urban activism.

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[30] This category can, in a way, be considered as a foundation for the ‘wish to change something’-category. Most people that have developed the wish to change something, have in a first step, developed a personal interest in sustainability issues.

The category **civil society's corrective power** is—not surprisingly—only brought forward by ***civil society*** actors[31]. For some, *meeting people already involved* was a motivating factor to become active or to accelerate their involvement (Bilbao, a4, 25–26; Larissa, a4, 31–32), pointing to the ***social*** and respectively the ***socialise*** function. Commitment can express itself in the form of *protest* movements against unsustainable projects, e. g. against a gas pipeline in ecologically sensitive areas in the 80s (Madrid, a4, 26–27). An actor who defines himself as naturalist explains his motivation by the fact that he understood that being a naturalist, with the knowledge that the environment needs to be protected is insufficient in itself, but that *political action* is also required. This means that you have to learn by doing and to also deal with things you had not been interested in before (Strasbourg, a4, 32–36). Here again we can make reference to the ***value*** and ***environmental purposes*** function. Another actor clearly states that his civil society commitment gives him the opportunity to do things that are important to him, but which he cannot achieve in his job, since when dealing with sustainability professionally (e. g. in the state or the market sector), you cannot always follow your preferences: "Professionally one does not always get to do what one likes, wants, promoting an idea, while an NGO allows one to think of a project which is atypical […]. Professionally I do what the market asks for what must be done and many times I feel the need to do something extra" (Sibiu, a4, 52–60, 195). Here, apart from referring to his values, which can be explained with the ***value*** and ***environmental purposes*** functions, the actor expresses his need for ***competence*** and ***autonomy***. Doing the things one is good at, feeling competent when mastering also challenging tasks, and choosing autonomously which actions to take to reach one's set goals, are needs that some people luckily find satisfied in their job. Some of those for whom this is not the case turn to (environmental) civic engagement to fulfil these needs. The quote also shows that the intermediary sector can be considered an *enabling corrective space* to the state and market. Although no actor expresses explicitly disappointment with the state and market institutions, an actor did comment that environmental issues are not sufficiently high-ranking at the national level and that therefore their country lags behind European standards in environmental issues. Thus, it is important to put pressure from below to complement already existing pressure from above, by the EU (Paris, a4, 18–19). Furthermore, motivation simply evolved because of the lack of sustainability projects locally (Sibiu, a4, 43–46, 52–60; Thessaloniki, a4, 26–27).

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[31] This coincides with a general trend also becoming evident in the quantitative data of every sector, estimating its own contribution to sustainability higher than the one of the other two sectors.

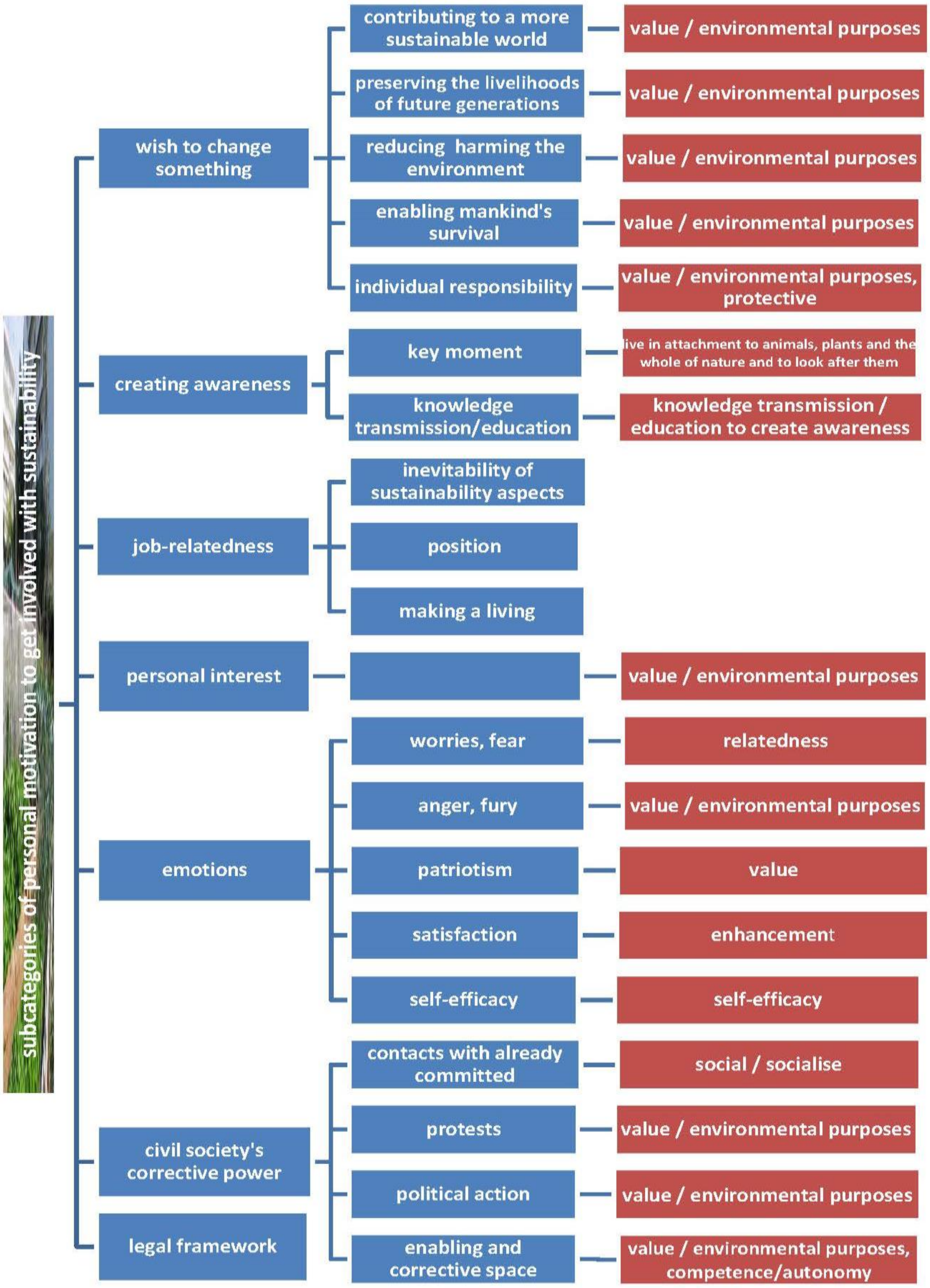
subcategories of personal motivation to get involved with sustainability
wish to change something
contributing to a more sustainable world
value / environmental purposes
preserving the livelihoods of future generations
value / environmental purposes
reducing harming the environment
value / environmental purposes
enabling mankind's survival
value / environmental purposes
individual responsibility
value / environmental purposes, protective
creating awareness
key moment
ive in attachment to animals, plants and the whole of nature and to look after them
knowledge transmission/education
knowledge transmission / education to create awareness
job-relatedness
inevitability of sustainability aspects
position
making a living
personal interest
value / environmental purposes
emotions
worries, fear
relatedness
anger, fury
value / environmental purposes
patriotism
value
satisfaction
enhancement
self-efficacy
self-efficacy
civil society's corrective power
contacts with already committed
social / socialise
protests
value / environmental purposes
political action
value / environmental purposes
enabling and corrective space
value / environmental purposes, competence/autonomy
legal framework

Figure 8: Subcategories of personal motivation to get involved with sustainability

(N=55, 7 S, 21 M, 27 CS)

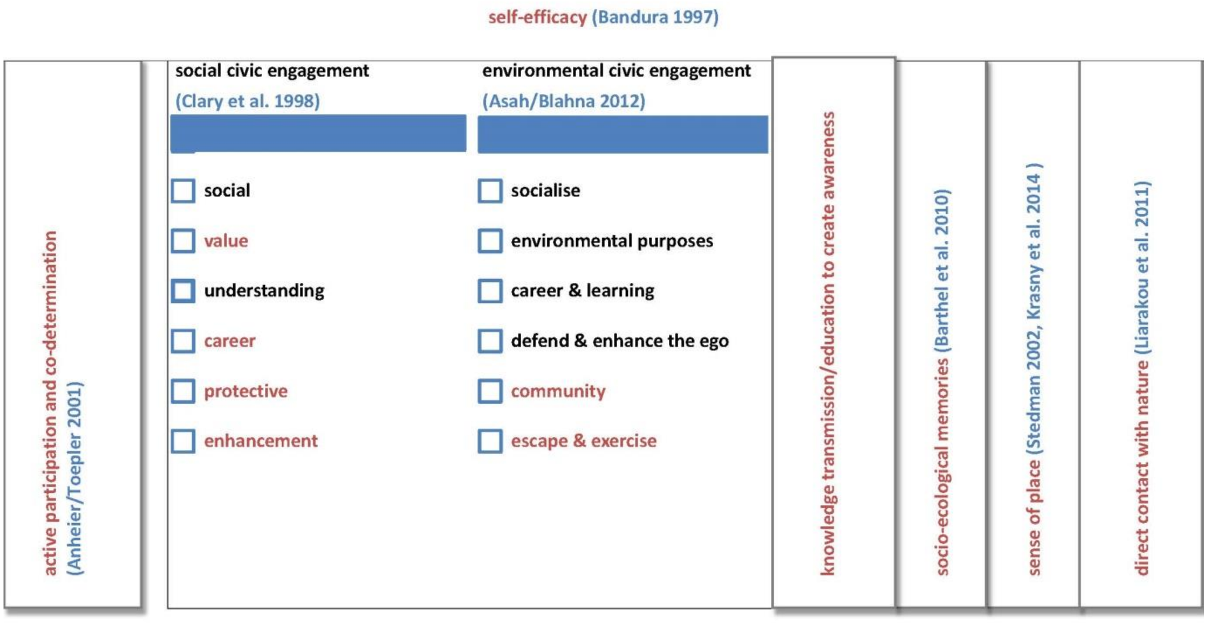
self-efficacy (Bandura 1997)
active participation and co-determination (Anheier/Toepler 2001)
social civic engagement (Clary et al. 1998)
☐ social
☐ value
☐ understanding
☐ career
☐ protective
☐ enhancement
environmental civic engagement (Asah/Blahna 2012)
☐ socialise
☐ environmental purposes
☐ career & learning
☐ defend & enhance the ego
☐ community
☐ escape & exercise
knowledge transmission/education to create awareness
socio-ecological memories (Barthel et al. 2010)
sense of place (Stedman 2002, Krasny et al. 2014)
direct contact with nature (Liarakou et al. 2011)

Figure 9: Explaining actors' motivation for becoming involved in sustainability issues

Source: Own representation based on Anheier and Toepler 2001, Asah and Blahna 2012, Bandura 1997, Barthel et al. 2010, Clary et al. 1998, Krasny et al. 2014, Liarakou et al. 2011, and Stedman 2002

4.3 Emerging issues

The following sub-chapters grant specific insight into the state of self-organisation in the field of green spaces, clustered into three major thematic strands. These sub-chapters also display reasons for the evolvement of civil society activity, as well as actors' motivation for the part of urban food production. The first strand assembles forms of protests against the reduction of inner city green spaces due to building and infrastructure development, while the second centres on the topic of using common green spaces for urban food production. A third interesting observation in the data has been the emergence of new forms of cooperation and coalition in some places in order to deal with local challenges concerning green spaces, which deserve a deeper investigation. Movements cannot always clearly be distinguished from each other and might also fall concurrently into more than one category.

4.3.1 Self-organising in reaction to the reduction of green spaces for building and infrastructure development

Before examining citizens' reaction to the reduction of green spaces, reasons for the latter are shortly presented: Ongoing **urban sprawl** consumes land, thus reducing green spaces and agricultural land (e. g. Linz, a3, 58–61; Lublin, a4, 51–52; Lugano, a3, 28–29 and a4, 21–30; Rome, a1, 42–43). *High development pressure* (e. g. Leeds, a3, 60–63; Potsdam, a3, 58) sometimes leads to construction even in environmentally sensitive areas (Lublin, a4, 25–29; Lugano, a4, 21–30). Large traffic infrastructure projects frequently entail urban sprawl. For example, along the third bridge in Istanbul currently being constructed, irregular building activity emerges. This starts with shanty houses, later being replaced by proper houses for which eventually a permit is obtained (Istanbul, a1, 38–39). Increased soil sealing *endangers biodiversity* (e. g. Strasbourg, a4, 36) and even poses a risk to inhabitants (Bilbao, a4, 36, 58). This is because, when river flooding areas are (re)developed into green spaces rather than built on, they can also serve as compensation areas in the case of flooding, thus reducing flooding risk to inhabitants. Many times, no ecological compensation areas are created or they are insufficiently created, and thus do not compensate for the biodiversity loss that occurs. For example, trees planted will need minimum 20 years to replace those which have been lost (Saarbrücken, a4, 22–22, Timisoara, a4, 62–63).

Exodus from the city occurs, if living conditions in the city are not attractive enough, for example due to high traffic density, related pollution problems, lack of green spaces, but also high rents. In these cases, citizens opt for living outside the city and commuting to work, thus even aggravating the traffic problem, as well as increasing the vacant building rate in the city (Dortmund, a4, 23; Lublin, a4, 51–52; Lugano, a3, 28–29). This situation is perverted still more, if motorways are then built through the city in order to facilitate increased commuting by car, and further decreasing living quality for those remaining in the city (Linz, a4, 34–35). Many cities are already highly densified, with little green spaces left (e. g. Lugano, a3, 107–109 and a4, 49–56; Paris, a3, 29). For example, Thessaloniki disposes of less than three square metres of green spaces per inhabitant, which is far below the EU average (Thessaloniki, a3, 80 and a4, 21). The city is characterised as “an uninterrupted mass of concrete that stops at the waterfront just because it cannot go further […] [and] in some […] districts there is complete lack of green spaces” (Thessaloniki, a3, 31). The latter is also reported from Sibiu (a4, 143–152). In Lugano, it is seen as the biggest challenge to bringing people back to live in the city. If people came back to live in the city, this would also break the vicious cycle of people moving out of the inner city and thus not being interested any more in putting bottom-up pressure on the state to regain access to inner-city green spaces (Lugano, a3, 59–64, 114–115).

Some cities pursue the strategy of further inner-city **densification** to prevent urban sprawl (e. g. Cracow, a4, 12-13, 53), while at the same time trying to increase inner-city quality of life. This has worked out, for example, in Zurich, which has managed to attract people back to the city after a general exodus in the eighties. An example of how it has done this is by transforming streets into recreation areas (Lugano, a3, 67–70). Yet, if the principle of ‘inner city development before outer city development’ is exaggerated, without paying attention to a sufficient amount of inner-city green spaces and to the creation of affordable living space, people cannot be convinced to live there (Bilbao, a4, 36; Larissa, a3, 28; Lugano, a4, 34; Saarbrücken, a4, 22–24, 51; Strasbourg, a4, 24, 58). An example is Lugano, where, besides being highly densified already, the high rents in the inner city deter people on an average income from living there. Tenants are almost exclusively banks and service companies or foreign investors, increasing inner-city vacancy rates, since the latter might not rent but just keep the real estate for speculation purposes (Lugano, a3, 59–64; 114–115).

Densification due to inner-city building or traffic infrastructure development very often **reduces** still existing **green spaces** (e. g. Aalborg, a4, 73–75; Cracow, a4, 12–17, 46–47; Linz, a3, 58–61; Lodz, a4, 22–23, 37–38; Lugano, a4, 51–52;Timisoara, a4, 30, 64–70, 98–102; Umea, a3, 59–70), also because the more densely built an area is the more profit can be made (Leeds, a3, 60–63). For example, in Innsbruck it was discussed whether to turn allotment gardens situated near a shopping mall into a business area (Innsbruck, a3, 80–85). Another example of densification is Lublin, which is currently developing into a car-friendly city to the detriment of pedestrians and non-motorised traffic by “megalomania in road investments” (Lublin, a4, 29). Despite a bypass road being planned, there is enormous investment in building roads throughout the city, thus reducing public (green) space: “This eliminates a piece of the square here, a piece of playground there, a bit of something else” (Lublin, a4, 29). In one case, the pedestrians’ shortcut route to the central train station through a park was blocked by building a motorway through the park, which increases traffic density even more since pedestrians now opt to go by the car in order to reach the station. However, the risk of green spaces disappearing is even higher for smaller, less known green spaces, which are threatened by the construction of parking lots and roads, partly demanded by private persons and businesses. This form of green space destruction is not being sufficiently countered by local authorities (Linz, a3, 58–61; Lublin, a4, 37–40)[32].

City development can also be mismanaged by **building speculation**, sometimes linked to corruption and clientelism. It leads to high consumption of territory and *reduces affordable housing space.* Real estate serving speculation purposes or holiday houses provokes a *high inner-city vacancy rate* (Lugano, a4, 27–30). In Naples, building speculation contributed to a doubling in the number of buildings being built in the past 20 years (Naples, a4, 26). Unrequired, often supersized buildings are erected in places that, when taking into consideration the common good of the city, should not be built on (e. g. Lugano, a4, 34; Milan, a3, 27, 34–35 and a4, 66–71). This is often due to deals between politicians, the finance sector and building industry and serves the financial interest of a few. This mechanism has led to major architectural blunders in several European cities, contradicting the principles of sustainable city development.

The multiple crisis from 2008 onwards has slowed down building activity. However, in some cities the crisis has also led to **public poverty**, that is scarce public resources regarding the city budget. This can result in cities selling public land to private investors to replenish their budget in the short term, or of sacrificing green spaces in order to cut costs (e. g. Timisoara, a4, 52–53). The mechanism is drastically expressed by an Italian interviewee who states that “the city is kidnapped by the building speculative trends because the local authorities sell their territory for their budget” (Milan, a3, 30–32). Good ideas to minimise the reduction of green spaces for building development exist, such as the *redevelopment of brownfields*, and are also anchored in the City Development Plan. However, they are not put into practice due to missing resources (Milan, a3, 30–32). Instead, the city administration has tried to make money by giving permission to build parking lots, even on green spaces (e. g. Milan, a4, 72–75). Examples of cost cutting effecting green spaces are when cities close parks down down (Strasbourg, a4, 88–92), officially for regeneration reasons, yet citizens suspect that it is done to save maintenance costs (Lublin, a4, 37–40). Some actors propose connecting income tax not to residence but to place of work in order to make commuters pay for the costs of city development, and to shift rich exurbs’ resources to less affluent city budgets (Dortmund, a4, 108–110).

Istanbul is one of the cities with the highest pressure on still existing green spaces, due to an ever rising population and political and economic actors following the **growth paradigm** at all costs for profit interests. Green spaces are being consistently and rapidly reduced by building and infrastructure development for roads, mosques, shopping malls, or the third bridge: “Roads pass through the green spaces; they build highways and bridges on them; the green land […] is turned into shopping malls […] Now they are building sideways to the third bridge. Millions of trees will be cut down. And the prime minister says they will plant more trees. And where will they plant them, on concrete?” (Istanbul, a1, 18–19). This situation is also mentioned by actor 4 (21–22, 41–46). The result is an **overuse** of the remaining green spaces (Istanbul, a4, 43–46). It is highly difficult to exit this growth logic due to existing **property rights** and the **distribution of power**, and respondents even predict an aggravation for the future (Istanbul, a4, 41–46). The land development plan was stipulated long ago, all land is titled land. New public green spaces could only be created if the metropolitan municipality decided to buy land, transformed it into green spaces and opened them up for the citizens. Thus, the fate of green spaces depends on the goodwill of the metropolitan municipality, since it is responsible for creating new ones, and the existing ones are only available as long as the national and local government decide to protect them (Istanbul, a1, 36–39).

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[32] The case of Lublin resembles the situation of German cities in the sixties and seventies of the last century, when they were transformed into car-friendly urban centres. This is a trend that Germany then tried to reverse from the 90s onwards. It seems that particularly cities in Eastern Europe as well as Istanbul still cling to a growth paradigm when it comes to urban development, which has partly been overcome in other regions of Europe.

Urban planning is often *criticised* for either not having been in existence at all, as not having worked well or as having failed totally (e. g. Istanbul, a4, 11–12; Larissa, a3, 17–18; Lugano, a4, 34; Milan, a4, 66–71; Strasbourg, a4, 36). Where only housing units have been built without also providing the concomitant transport, leisure and business infrastructure, cities face additional later costs for maintenance and connection (Cracow, a3, 23 and a4, 48; Larissa, a3, 34). Some cities have never followed a specific green space policy, leading to a situation in which almost no green spaces are left (Lugano, a4, 49–52). What's more, climate change has not yet been taken into consideration sufficiently in urban planning (Dortmund, a4, 30). A removal of green spaces and ongoing soil sealing has a detrimental influence on the city's microclimate, as they exacerbate the urban heat island effect (e. g. Strasbourg, a4, 24–25, 58, 76–87; Potsdam, a3, 17–22). However, in a situation with generally rising temperatures in Europe due to climate change, these tendencies become increasingly critical and are detrimental to building a more **climate resilient city**.

The **legal framework** can either hinder or promote sustainable city development in the field of green spaces. The rules around the release of building permits is a central regulating instrument, with the potential of to reduce building activity (Linz, a3, 58–61; Sibiu, a2, 35–37). If *rules* are *too permissive* or not applied properly, construction activity is not curtailed. For example, when building permits are easily handed out (Lublin, a4, 27–29), citizens are tempted to reduce even their own private green spaces to make money, as for example in the case of Lugano where owners of old villas with large gardens tore them down to replace them with tightly packed new buildings (Lugano, a4, 57–60). In other cases, private persons receive a building permit after having built illegally (e. g. Istanbul, a1, 38–39). Where urban planning law at national and regional level leaves to much room for manoeuvre to the local government, city government can end up choosing to sell land to private investors instead of preserving green spaces (Milan, a3, 63–64). If the *legal framework* is *incomplete*, for example not defining well what falls into the category of inner city green spaces and what their different values are, these spaces are less protected (Timisoara, a4, 64–70). In Lublin, building on environmentally sensitive areas that are not foreseen for urban development, is facilitated by the lack of a land development plan (Lublin, a4, 25–26), and even where such a plan exists it might not have been updated, and therefore all green spaces that are not covered by it are threatened (Lodz, a4, 22–23).

A **shared vision of sustainability and city development** is too often *still missing* or not visible enough (e. g. Milan, a3, 27, 30–32; St. Gallen, a4, 9–10), but would be the starting point to reach a more **sustainable land use** in and around cities. "[T]he need to build a less dense city and to also leave room for green spaces and public space" (Lublin, a4, 27–29) is not top priority for all stakeholders. Especially cities with a long industrial tradition or which were used as military bases, often still dispose of large areas of **fallow land**. Sustainable land use means that instead of sealing green spaces in and around the city, industrial brownfields and former military sites would be reused for building or infrastructure development and for expanding green spaces (Dortmund, a4, 77; Potsdam, a3, 17–22, 57–60; Saarbrücken, a4, 22–24), even if this can be complicated by shifted land tenure, often meaning that land has been privatised. For example, The Cracow municipality sold a piece of land for a cheap price to a private company, which uses only parts of it, making redevelopment for housing, commercial use or green spaces impossible since the new owner does not want to cooperate (Cracow, a4, 52–55). Some cities' shape is particularly suited for redeveloping green spaces. As a respondent from Leeds explains, the medium sized city's shape of a wheel lends itself to create green "spokes", rather like green corridors. This feature also opens up possibilities to "revillagise" the city and even to relocalise economy (Leeds, a4, 59–60). *Inner-city green space* could also be *regained* by retransforming inner-city parking lots. However, this presupposes a united vision of a traffic-calm inner city, often counteracted by the interests of local businesses, or public bodies in favour of creating parking spaces in order to generate public money. Creating a traffic calm, green inner city instead requires financial resources and thus necessitates strong and united political will (Lugano, a4, 55–56; Saarbrücken, a4, 62).

Which possibilities exist for citizens to react to and influence the aforementioned tendencies? The degree of practiced **citizen participation** in the field of green spaces greatly varies across European cities (Sauer et al. 2015, 87). *Co-decision making* is rarely found. Too often citizen participation in urban planning is just “a bit ‘must have it’ a ‘tick a box’ and when they got the job then they make just what they would do anyway” (Copenhagen, a3, 36–37). This respondent claims that citizens should not only have the option to influence the planning process, but have to have the *feeling of ownership*, the feeling of being responsible themselves for change, with concomitant options to become active. This does not mean that experts’ knowledge is not needed anymore. There must be *joint experiments* that need to be scaled up if they work: “’think big start small –scale fast’ […] involvement […] is not just about putting people together at a table […] we need to experiment together – we need to test something – evaluate how it works – how to go on – scale up. Such experiments with residents of an area – before establishing something bigger” (Copenhagen, a3, 36–37). Actors warn that if the current economic growth model with concomitant “developers’ aggressiveness” (Cracow, a4, 40–47) or even “developers´ dictatorship” (Lublin, a4, 26) is further pursued, there will be almost no green spaces left (Lodz, a4, 22–23). Life in the city will become unbearable, because the city will become ever denser and this density will spread to the outskirts (Lugano, a4, 29–32, 55–56; Strasbourg, a4, 26). The city’s population will increase, there will not be sufficient public spaces, and the vacancy rate will remain high instead of producing more housing space. Thus, to increase the amount of green spaces is seen as the city’s biggest challenge (Jilhava, a4, 51; Thessaloniki, a4, 29, 30–31, 52). Where political and economic actors unwaveringly cling to the growth model (e. g. Strasbourg, a4, 19–20), making decisions over the heads of citizens, and not granting a sufficient degree of citizen participation, there is the high probability that **tensions and conflicts over the use of space** will emerge and citizens will **self-organise** to protest. The section underneath shows that in some cases these **protests**, ranging from small citizens’ initiatives at the neighbourhood level to larger city wide social movements, lead to citizen empowerment, a higher degree of citizen participation and ultimately to political change. However, having partly been institutionalised and subsequently achieving a (partial) implementation of their goals, their intensity might then decrease, as described for the Madrid Citizen Movement[33] (e. g. Madrid, a4, 65–68).

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[33] The movement was part of the Spain-wide neighbourhood Movement which evolved in the 1970s around different urban issues despite political oppression. Castells (1983, 215) characterises it as “the largest and most significant urban movement in Europe since 1945 […] dealing with all matters of everyday life, from housing to open spaces” He describes its contribution to social change:

“Under the influence of social processes to which it contributed substantially, Spanish cities changed, political institutions were turned upside down, social relationships in the neighbourhoods dramatically improved, and perhaps most significantly, the urban culture, namely, society's conception of what a city should be, was fundamentally altered. [...] Open space was provided [...], some environmental protection was legislated for [...], community life was enhanced" (Castells 1983, 216).

The Madrid citizens’ movement “decisively changed the city […] and actively participated in the transformation of the political system” (Castells 1983, 258). This does not only mean that it was one factor for the decline of the dictatorship, but its claims were implemented at a very pratical policy level:

“Beyond the measures put into effect in Madrid between 1975 and 1980, there was a total rectification of the model of urban development as well as of official urban policy. [...] The building of urban motorways were stopped; sudden and dramatic changes of land-use were avoided (for instance, the railway stations remained in the centre of the city) [...] private parks were opened to public use […]; pedestrian zones were extended" (Castells 1983, 259)

Citizens groups are formed in every region in reaction to **building and infrastructure development, which reduces green spaces** (e. g. Aalborg, a4, 82–87; Lodz, a4, 31–32; Umea, a3, 73–74, 50–51). If green spaces are threatened, be it private or public ones, this meets resistance, as in the case of allotment-garden renters who feared to lose their dearly held gardens (Gothenburg, a4, 63–66). Or in the case of protest against big infrastructure projects, e. g. a planned motorway through the city (Linz, a3, 62–67 and a4, 65–68). In Cracow, residents protested against the widening of roads[34] which would have meant tearing down their houses. Furthermore, citizens, sometimes in coalition with NGOs, protest against the logging of trees for construction purposes (e. g. Jilhava, a4, 44–45; Linz, a3, 62–67; Lublin, a1, 22–23; Timisoara, a4, 157).

Citizens' protests emerge against **non-accessibility** as well as the **commercialisation** of public green spaces. In Lublin there were protests against the long-term closure of a big public park, and in Glasgow citizens' protests prevented the opening of a park for commercial usage for the hospitality industry (Glasgow, a4, 95–98). In several parts of Cracow, protests have occurred against the **privatisation** of public land. There were minor protests when a piece of land was sold to a private investor, in this case the church, and was subsequently not accessible for citizens any more (Cracow, a1, 70–75). In one case residents self-organised, with the support of a non-governmental organisation, against the city's plan to sell pieces of land of a public park to the highest bidder for construction purposes. After their protests and a year-long conflict, a consensus was reached in several meetings. Some green spaces were preserved and turned into gardens, resulting in a significant monetary loss for the city's budget, whereas the rest was put up for sale (Cracow, a2, 36–39; a3, 73–76, 81, 125–134 and a4, 48–49). All over Istanbul there are smaller or bigger conflicts over accessibility and the reduction of green spaces due to building development that often end in protests with the most famous and biggest one being that of Gezi park (Istanbul, a4, 47–48). Conflicts with the public administration emerge (e. g. Cracow, a4, 50–51), because citizens feel that "every time you need to fight to keep the areas green and to stop building on [them]" (Milan, a3, 54–55).

Citizens' protest is channelled and 'professionalised', if supported or even originally organised by local non-governmental organisations, sometimes also in cooperation with local politicians. In Istanbul, **NGOs** and **district politicians** jointly fight against construction plans on public green spaces that provide for mosques with underground shopping malls in public parks. The number and quality of NGOs is rising (Istanbul, a4, 88–91), and citizens join them to jointly protest against the reduction of green spaces. Actions range from demonstrations to court hearings (Istanbul, a1, 23–29, 42–47 and a4, 47–48, 73–80; Saarbrücken, a4, 25). In one case, the metropolitan municipality's government's plan to build a shopping mall was opposed by the district government more than 20 times by **taking proceedings**, yet without success. According to Istanbul's respondents, in most cases citizens' protest is not successful due to existing power structures: "If you are not […] in a position of power, you can try as hard as you like. You cannot stop the big projects. They crush you." (Istanbul, a1, 39) Apart from going straight to court, NGOs also use the means of **vetoing** decisions, leading to a renewed examination, as in the case of Jilhava, where trees on private land were supposed to be cut. An NGO figured out that the obtained expert opinion was manipulated, and obtained another one which was then submitted at the regional level, saving the trees (Jilhava, a4, 42–43).

Citizens also self-organise in associations or social movements to **re-appropriate** abandoned areas—for example old military fields—to prevent construction on them and to put pressure on

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Moreover, its "demands for participatory democracy actually reshaped the institutions of city government while opening a serious debate on the meaning of democracy within the political parties themselves." (Castells 1983, 261).

[34] This measure was planned in order to correspond to a Polish law whose intention is to reduce the number of too narrow streets.

the city to instead develop green inner-city corridors (Madrid, a4, 61–64, 71–72). In Spain, this phenomenon has a historical precursor: Towards the end and of the dictatorship and afterwards, in the so-called ‘Transición’ to a democratic system, citizens’ movements mushroomed and claimed green areas, which led to their expansion and to the movements’ influence in their management (Madrid, a4, 36, 56–60)[35]. In Greece the value of land has fallen due to the crises, building activity has often been stopped or slowed down, and citizens occupy this land (Thessaloniki, a4, 51–52).

In some places, initial protest evolves into constructive **collaboration** across sectors and a *higher degree of citizen participation*. In Milan, an association now has a good relationship with local authorities, yet this was only achieved after protest actions (Milan, a4, 53–57). In Lugano, a citizen movement, fighting to obtain sustainable urban planning which safeguards the remaining unbuilt mountains around the city from construction, led to the foundation of an association countering real estate development in the outer city district. It has achieved an institutionalised hearing process for a participated planning procedure, consisting of informative meetings with all stakeholders involved, led by an external facilitator. However, building activity is continuing (Lugano, a4, 17–20, 23–24, 26, 57–68, 83–89).

Not only civil society, but also **economic** actors try to protect green spaces. For example, a company from Larissa is rehabilitating a ditch, transforming it into a park to reach the level of biodiversity that had existed before the area was degraded by grazing and often arbitrary irregular construction (Larissa, a3, 28).

4.3.2 Urban food production

Urban food production is not a new phenomenon in European cities. For example, some time ago, fruit trees could be found in every French city and town (Strasbourg, a4, 82–86). While the original reason for producing food in cities was one of letting workers produce fresh food for self-consumption (cf. 4.3.2.5), reasons, motives and forms of growing food in the city have diversified. In the data analysis phase of the ROCSET project it became apparent that in several European cities civil society actors have started food production, either without or in cooperation with local authorities. The interest in producing food in the city is ever-growing, although it is higher in some cities than in others, with generally least action in the East and in Istanbul, where it is, according to a respondent, not the citizens’ mentality to grow food in the city (Istanbul, a1, 72–73). An interviewee from Paris describes its scale in the city as manageable, with some collective gardens existing, but not having developed into a social movement (Paris, a4, 55–58). A totally different picture presents itself in Leeds, with many initiatives happening recently, whereas before there was not much action either. Now, there is a lot of interest and positive movement (Leeds, a4, 59–60). Also in Linz citizens and citizen groups want to get more involved in urban gardening (Linz, a4, 93–96). Interest is high mainly in *dense* cities with a low percentage of green spaces, where most inhabitants neither have an own garden nor a balcony. This takes the form of interest in allotment gardens as well as in urban gardening for food self-production and consumption (e. g. Innsbruck, a3, 76–77; Milan, a3, 58–59; Saarbrücken, a4, 50). The following three paragraphs cluster the empirical data obtained into the four main existing forms of producing food in cities, as proposed by a respondent (Leeds, a4, 97–99). The four types are not hermetically separated from one another, but very often overlap.

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[35] One of the demands of the Madrid neighbourhood movement was “more open space, preservation of parks, conservation of tree-lined streets and general environmental protection” (Castells 1983, 225). For example, the movement achieved the construction of a small urban public garden in a housing area erected by a private developer at the end of the 1960s without any open or green spaces. In the fight over the construction of a shopping centre on the last vacant spot, a compromise was reached and a public park was built on part of the land (Castells 1983, 249–51) and that the protection of the ‘colonias’, single storey houses with gardens, was stipulated in the Special Master Plan for the Conservation of Madrid instead of tearing them down for building high storey buildings (Castells 1983, 256).

4.3.2.1 Private food production for self-consumption

Private food production for self-consumption is done on private ground and is practiced alone or with family members. The majority of city dwellers does not possess their own garden to grow food in, thus they draw on the possibility of renting an **allotment garden** either from private owners or from the city. Allotment gardens have a long tradition in European cities, especially in former industrial ones (e. g. Leeds, a4, 82–86, Jilhava, a4, 3, 41), even if their diffusion varies across regions (less in Southern and Eastern Europe). Even if becoming less popular from the sixties onwards due to economic revival with a corresponding turning away from self-producing options[36], they have always continued to exist and have been experiencing an increased interest since the end of the last millennium. For example, in Dortmund there are more than 120 allotment **associations** (Dortmund, a4, 42). In Milan, the owner of an inner city ground started a pilot project renting 60 allotments to families. There are more than 350 families on the waiting list and this is without ever placing an advertisment (Milan, a3, 58–59). He is trying to obtain land from the city to be administered in the form of a **cooperative** in order to enlarge the already existing allotments. Then everyone interested in producing food could become cooperative member by buying a share, and he hopes that the city will acknowledge this management of green space also in the city development plan. By letting a cooperative manage a piece of inner-city agricultural land, its abandonment will be prevented and thus it will also be withdrawn from financial building speculation interests, thus *countering land speculation* and *prevailing profit-orientation* in land use policy (Milan, a3, 36–39, 60–61). In Potsdam, an association with numerous innovative ideas also manages to put them into practice, with one of them being the growing of food in their own garden for self-consumption (Potsdam, a4, 21–27, 49, 55–57). In the same city, there is also a trend of young people renting an allotment together, thus blurring the boundary between private and community food production (Potsdam, a3, 220–222 and a4, 41).

4.3.2.2 Community food production for self-consumption

C**ommunity food production for self-consumption** is centred on social interaction. It is about growing food *together with others* to build a community. It shifts gardening from the private into the public sphere, making it a visible, open, and common activity. In this way, across European cities, **self-organised** community food production creates **urban commons** (cf. 2.2.1.2). For example, in Copenhagen the initiative “Copenhagen Food Community” is only one out of many in the city (Copenhagen, a4, 38–39). In Potsdam a **non-profit association**, undertaking many different sustainability projects, is a major player in the city in the network of community gardens (Potsdam, a4, 12). Community food production often makes use of **fallow land**. In Strasbourg inhabitants started to plant tomatoes on a public green space (Strasbourg, a4, 88–90), and in Aalborg a project to make use of fallow public land was successfully started, with one of the developed initiatives being urban gardening (Aalborg, a4, 61). In Madrid the urban gardens’ network was created as a citizens’ initiative without support from the city council (Madrid, a3, 58–59), transforming for example parts of a big park[37] in the heart of the city into an urban garden (Madrid, a4, 45). Most neighbourhood associations operate on **appropriated abandoned public space,** which is foreseen for building development, in order to do urban gardening (Madrid, a3, 58–59)[38]. In Milan an association has reclaimed an abandoned park, which led to the uncovering of illegal activities taking place there. They have converted parts of the park for allotments and farming (Milan, a4, 52).

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[36] This refers to the Northern and Western part of Europe, and does not reflect the situation in the countries belonging to the former Soviet Union.

[37] the *Casa de Campo*

In Thessaloniki, due to lack of action on the part of public authorities and the municipality's insufficient management of green spaces, there have been several actions to use public space for food production: "Therefore, on the one hand we observe the poor management of the municipality and on the other hand the beautiful, self-organised initiatives of the civil society." (Thessaloniki, a3, 85) One respondent states that self-organisation is not possible for individuals but for groups of citizens, and from this strong initiatives have emerged. The first and biggest citizens' **urban agriculture initiative** is called 'Periastikes Kalliergies' (PER.KA = peri-urban agriculture) operating on a **former military camp**. It was formed after the concession of the spaces from the district municipalities to these self-organised citizen groups, in order for them to cultivate vegetables and fruits for self-consumption, meaning "urban agriculture for household use and not for commerce or maximization of profit" (Thessaloniki, a4, 75–76). Meanwhile, the initiative has yielded numerous similar sub-initiatives in other parts of the city always on abandoned military camps (Thessaloniki, a3, 45–46). Particularly the first PER.KA has a "unique development in terms of citizen participation" (Thessaloniki, a3, 45–46). Apart from former military camps, even **dumping sites** were used to start urban gardening. In two cities dumping sites, there was a citizen initiative started by a large group of urban farmers, starting to cultivate fruits and vegetables, cleaning, embellishing and making the spaces available for food production designated for self-production (Thessaloniki, a3, 78, 85). This happened because the ongoing transformation of the former military camp into a composting site undertaken by city employees, was suddenly stopped due to the economic crisis and consequent budget problems. The staff was dismissed, and the place turned into an illegal dumping ground (Thessaloniki, a3, 84–85). Here, citizens reacted to the **city's difficulty in providing sufficient management of public green spaces** by self-organising.

In some cities there is a high degree of **cooperation across sectors,** which expresses itself in *vivid communication* through different channels (Leeds, a4, 86). In Leeds two initiatives were born after activists had contacted the counsellor. The first, "Feed Leeds" tries to encourage community food growing in parks and was connected to all pre-existing food growing initiatives, allotment garden organisations and other kinds of sustainability groups, to create a **loose but very active local network**. It connects civil society actors and is also in touch with politics (the Council) through the creation of an independent committee. It was born when an activist got in touch with a councillor who understood that **stepping back from controlling green spaces and allowing a more democratic use of them** would be beneficial to the city as a whole, while **relieving the public budget**. Anticipating that major budgetary cuts would occur, meaning that the city would not be able to afford to manage public green spaces as in the past, he believes that by involving citizens, costs can be saved (Leeds, a4, 31–40). This *politician actively supports* the initiative by asking what he can do to improve conditions for it to flourish (Leeds, a4, 82–86). The second and third initiatives try to carry the idea of growing food in cities into formal educational institutions: There is the "Leeds Edible School Sustainability Network" which fosters sustainability issues and healthy eating habits in schools, as well as "Leeds Edible Campus" to also connect research activities to the existing network, by creating a showcase of urban agriculture. New initiatives are emerging, e. g. the 'Incredible Edible Todmorden Initiative' (Leeds, a4, 31–40) or the "Meanwood Valley Urban Farm", the first urban farm in Great Britain which is open to schools and families (Leeds, a4, 30–36; Leeds, a4, 82–86).

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[38] The interviews give no hint whether these actions stand in the tradition of the Madrid neighbourhood movement.

4.3.2.3 *Pick-it-as-you-walk-past* food production

In ***help-yourself, urban harvest, free-to-use, or pick-it-as-you-walk-past*** production, food is grown by a group of individuals and left to be picked by everyone passing by. This movement wants to *raise awareness of the value of land as a common good,* as well as promote discourse around the global issues of *food sovereignty* and *sustainable agriculture*. Currently, global food policy is highly determined by multinational corporations, which has led to the “restriction of fertility of the seeds through genetic engineering and cross breeding […] [,] the patenting of (also conventional) plants, the radical monopolisation on the seed market and a restrictive seeds legislation” This has already provoked an immense and irreversible biodiversity loss of three quarter of crop plants in the last century (Salzer 2013, 289). In Strasbourg, the movement ‘Incroyables Comestibles’ tries to raise awareness about inner-city food production by bringing back fruit trees as well as agriculture into the city and to reintroduce native species (Strasbourg, a4, 82–86). In Potsdam the intercultural garden founded by a NGO has created an orchard, which is open to everyone (Potsdam, a4, 173). In Saarbrücken the movement “Saarbrücken – die essbare Stadt” was founded by some individuals who started to grow vegetables on public ground without official permission by local authorities, gaining ever more members. It was supported by a local NGO—e. g. via lecture events—and subsequently also by the city. Meanwhile growing continues on a second spot, this time private space, with the owner’s permission—the church. The movement is judged by a respondent as a successful example of self-organisation, although it has to be seen whether it is more than a temporary trend (Saarbrücken, a4, 67-73).

4.3.2.4 Commercial food production

The main purpose of **commercial food production** is to sell the food produced with the possibility of *creating ‘green’ jobs*. Here, the idea of the **social economy** comes in. During the Italian Presidency of the EU Council, a public consultation and subsequent conference on the social economy’s role as a “key driver of economic and social development in Europe” (Unlocking the Potential of the Social Economy for EU Growth: The Rome Strategy 2014, 1) was conducted. The strategy defines social economy as “a universe of organisations based on the primacy of people over capital. Their aim is providing goods, services or jobs to their members or to the community at large, with a long-term perspective, with the participation of members-stakeholders in the governance of the organisation, and through the reinvestment of profits in their mission” (Unlocking the Potential of the Social Economy for EU Growth 2014, 2). This definition is compatible with the one given by Frank Moulaert and Oana Ailenei (2005, 2044), who conceptualise the social economy comprehensively as comprising “a wide family of initiatives and organisational forms – i.e. a hybridisation of market, non-market (redistribution) and non-monetary (reciprocity) economies”. These forms can be clustered into the three sub-concepts of “third sector, social economy and solidarity economy”[39] (ibid).

Compared with other parts of the world, e. g. Cuba (Clouse 2014), commercial inner city food production is still almost non-existent in Europe. Thus, the potential of using urban green spaces for commercial food production in the scope of social economy initiatives is far from being fully exploited yet. *Cooperatives* in the field of urban food production are only mentioned in two cities, Milano (cf. 4.3.2.1) and Larissa. In Larissa, although there are few bigger well-organised associations or cooperatives with clear visions and goals (Larissa, a3, 46), many small innovative civil society initiatives, such as women’s cooperatives selling locally produced biological food, exist (Larissa, a4, 89).

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[39] According to Moulaert and Ailenei, these forms are often used interchangeably despite their varying connotations in different countries. For a clearer distinction between these three sub-concepts, cf. Moulaert and Ailenei (2005, 2042–46).

4.3.2.5 Motivations for producing food in the city

What are the underlying motives for citizens to self-organise in the governance of green spaces and to produce food in the city? The quantitative research delivers insight into citizens' motives for the first part of the question and shows that ***being self-sufficient in food production*** altogether does not yet play a big role. *Beautifying one's neighbourhood* ranges first, followed by *contributing to societal life* and *creating things*. *Acting independently from local government* and *being self-sufficient in food production* do not represent central motives. The regional distribution does not display significant disparities for the most often named motive. Yet, *contributing to societal life* and *creating things* are less often named in Eastern Europe compared to the other regions (Sauer et al. 2015, 90). The strongest regional discrepancy between the ***East*** and the other regions concerns *being self-sufficient in food production,* which is no motivation at all in the East (cf. Figure 10).

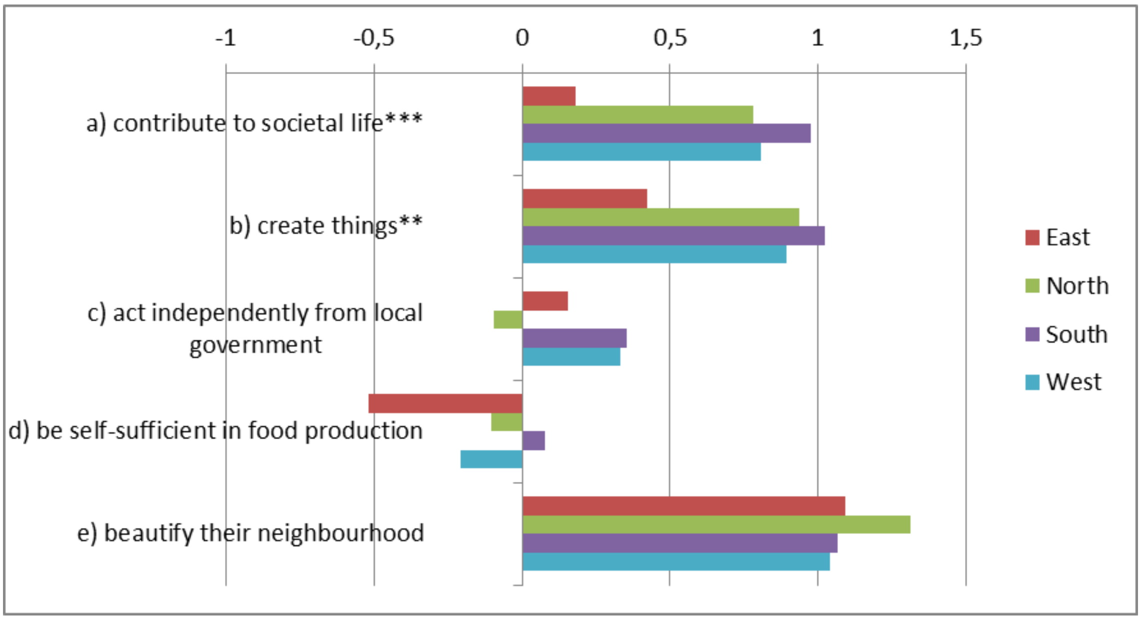

Figure 10: Regional differences in citizens' motivations for self-organisation in green spaces management (scaled from -2: strong disagreement to 2: strong agreement)

The interview data supports this since actions around urban food production are remain virtually unmentioned for the East in contrast to the other regions.The interviews also show that the trend of community food production for self-consumption is growing, while the more traditional way of producing in allotment gardens is continuing. The *pick-it-as-you-walk-past* movement and commercial food production are only starting in a small number of cities. Motives for producing food in the city are diverse, yet often interlinked and also vary according to the four types of urban food production (cf. 4.3.2.1 – 4.3.2.4). They are displayed in the following paragraphs and linked to the theoretical framework (cf. Figure 11).

Even if according to the quantitative data, **self-sufficiency in food production** is in no region a major motive, the qualitative data points to a rising importance of this motive in the ***South***. The topic of being self-sufficient in fresh, healthy food at low costs, especially for citizens with a low economic status, is only raised in this region. Here, **food sovereignty** is becoming an issue again. Using urban green spaces for growing food for self-consumption was a food sovereignty strategy in European 19th century industrial cities (Cordula Kropp 2011, 78). It was a poverty reduction strategy for workers, to provide them with the option of growing fresh healthy food for self-consumption since their income did not allow for a well-balanced nutrition (Steve Poole 2006, 9). In the first half of the twentieth century, especially during World War II, and still in the first post-war years, giving people partial autonomy for their own food production continued to be of utmost importance for a share of the population. For example, in Leeds during World War II's victory campaign, lots of parks were turned into allotments. Although people were virtually fed by the US convoys, the campaign gave the people power over their own diet which was psychologically and morally important, apart from the health and social cohesion benefits (Leeds, a4, 93–95)[40]. In the course of post-war economic growth in the second half of the last century, this function lost its importance. The empirical examples show that, especially after the multiple crises from 2008 onwards and subsequent austerity policies being enforced in several European countries, urban food production has in some places, but mainly in Southern Europe, again become a means **to mitigate private poverty**. For example, in Milan the local administration continues to follow the idea of giving allotments to families with a lower income (Milan, a3, 46–47). In Thessaloniki, the local government plans to increase the number of allotments, which do not have a strong tradition in Greece (Thessaloniki, a3, 79). In Larissa, the local administration initiated a municipal vegetable garden in 2011, which gives citizens with a low or no income the possibility to grow food for self-consumption. The demand is high and the garden has already been expanded (Larissa, a3, 49–50 and a4, 41–42): "Also, the local government has contributed considerably by setting up many, new green spaces, apart from the municipal vegetable garden that has been recently established for citizens of low economic status to grow food for self-consumption, who are unable to purchase food for their households" (Larissa, a4, 42, 48, 56–58)[41]. Where citizens lack the financial means to purchase fresh healthy food, urban gardening can be a means of achieving the basic capacity to ***be in good health and have adequate food*** (cf. Figure 2 and Figure 11). The act of **creating things** and more specifically of physically **creating something with one's hands** (e. g. Saarbrücken, a4, 50: "you want to get your hands dirty") points to the ***escape and exercise*** function (cf. Figure 3 and Figure 11), to an activity providing recreation and relaxation, sometimes linked to physical exercise, thus also having a physical component. This aspect is closely linked to the search for a **nature-related activity** (e. g. Copenhagen, a3, 59–60). The act of creating takes place outside and in close contact with nature and thus points to the category of direct contact with nature (Figure 3 and Figure 11). These two interlinked motives are increasingly important for the generation of young city dwellers who spend their working day in front of computer screens and seek to experience nature this way, as a balance to their working activity42. This well-being element of public green spaces and especially of jointly growing food in them is slowly also being recognised in urban development. For example in Paris, green spaces' are seen as possessing "exceptional potentialities" (Paris, a3, 56–57) – meaning that they are considered to be valuable meeting places with joint gardening as one possible activity – and are now also being taken into consideration in the planning of social housing.

Citizens want to actively **create urban common space**. They want to "create something from scratch" in their immediate surroundings for their families and themselves (Copenhagen, a3, 59–60 and a4, 38–39). Behind that stands the desire to have a **common meeting space** which they are able to **identify** with (e. g. Lees, a4, 93–95). This refers explicitly to a **physical**, **nature-related**—thus outdoor—meeting place, posing a counterweight to infinite social networks' virtual meeting options. Citizens beautify their neighbourhood because they are attached to it, it is important to them (***sense of place***, cf. Figure 3 and Figure 11). Therefore, they want to ***actively participate and co-determine*** the design of the area on their doorsteps.

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[40] This was the 'Dig for Victory' campaign of the British Ministry of Agriculture starting in 1939 (Poole 2006, 156).

[41] The case of Greece shows that since the crises of 2008, civil society actors have increasingly and very innovatively become active to achieve food sovereignty themselves (also Salzer 2013, 285), to counter the situation that many people cannot even afford basic foods any more. Such options are essential, also in the face of recent actions of the right-wing extremist party Chrysi Avgi (greek: Χρυσή Αυγή – golden dawn) in Athens of distributing basic foods for free, yet exclusively to Greek people.

[42] Gardening can help to slow down and to ground oneself. In this context Müller (2011, 16) uses the term "Entschleunigung"which could be translated as ‚slow movement'.

The private actor renting allotment gardens to families (cf. 4.3.2.1) does so to "give back the peri-urban land to families so that they identify it with the place where to spend the free time and grow veggies and fruits" (Milan, a3, 21). In Romania, during Ceaușescu's dictatorship, the rural population was forced to move to the city but did not want to give up their habits and traditions of growing food: "[…] activities, habits or simple pleasures. They wanted to organise a space close to their hearts, so, they arranged those small neighbourhood places: gardens, flowers, plants or fruit trees […] it generates a common place, orderly, and people adhere to it, because it's their product, one with which they identify with and surely they will take care of it" (Timisoara, a4, 117–122). In more recent times, NGOs have started urban gardening in Cluj and Bukarest, and in Timisoara there is a small group of urban gardeners creating common space for interaction, having been inspired from activities in other countries. The respondent sees the cityadministration's duty as providing public space for such interaction, underlining public green spaces' potential for innovative solutions: "Whoever has a garden usually is very defensive and generates a certain property limit. On the other hand there are spaces, which are spontaneously generated and they stand for the human being's capacity to bring forward solutions" (Timisoara, a4, 117–122). The interviews support the quantitative finding that 'acting independently from local government' is no focal motive for citizens' self-organisation. They want to create common space and do not exclude interaction with the local government, if it contributes to them achieving their aim.The interviews support the motive of **contributing to societal** life. Growing food together in a group ***establishes relationships to things and people beyond ourselves*** (cf. Figure 2 and Figure 11) as well as generating **social** cohesion benefits (e. g. Copenhagen, a3, 59–60; Leeds, a4, 93–95). People get the chance to socialise and be with like-minded people. This refers to the ***social*** or **socialise** category. Jointly growing food helps to build communities and to strengthen social ties, leading to the creation of a **community** spirit. Members that contribute to the community's common good fulfil the ***community*** function (cf. Figure 3 and Figure 11). They feel connected with their community and want to give something back to it.

Community food production is one way of **joint learning for sustainability, via knowledge appreciation and the sharing of knowledge, leading to joint citizens' knowledge production** across generations, cultures and social positions. Every citizen can play a part in it, and often very diverse knowledge across generations and cultural and geographical background is shared and spread: "'What are you going to do about these spots on these cabbages?' – 'Oh, my grandpa knows something about that.'" (Leeds, a4, 93–95). This points to the ***understanding*** or the ***career & learning*** category (cf. Figure 3 and Figure 11), allowing for diverse learning situations and the building up and transmission of knowledge. In a medium-sized city in Sweden in a housing area with 32 different nationalities, allotment gardens were opened up, where people could meet and communicate about growing food. The majority of migrants there come from rural areas and have the knowledge of how to grow food (Gothenburg, a4, 84–86). Having received only a low level of formal education, here their knowledge in the field of food production is appreciated. They are thus recognised by others, responding to their need for ***competence***. As mentioned above, in Romania the rural population that moved into the city retained their **habit and tradition** of growing food. This points to the ***socio-ecological memories*** category (cf. Figure 3 and Figure 11), illustrating people's need to keep on practicing the cultivation of fruit and vegetable and to pass on their collective knowledge and memory to the next generation in order to prevent its loss.

Mainly actors involved in the initiation and organisation of urban food production options for citizens mention the aim of **knowledge transmission to create awareness** for sustainability issues, pointing to the category ***knowledge transmission/education to create awareness*** (cf. Figure 9 and Figure 11). From experiences with urban food production, a lost (if at all ever existing) **relationship with nature** can be rediscovered and **regained** (e. g. Strasbourg, a4, 107–110). One actor describes it as "conveying […] a 'feeling for nature', a personal relationship to nature, meaning to 'know how it feels to walk around in the blueberry bushes', a feeling that you can miss if you do not have it" (Umea, a3, 81–84). By working in and with nature and observing its rhythm and laws, one learns about “the difference between life and death, for instance when you swat an ant [, or you experience] the pleasure to grow vegetables and eat them” (Paris, a3, 50–55). Thus, you learn to **respect nature**. This raises awareness of what it is to ***live in attachment to animals, plants and the whole of nature as well as how to care and look after them***. Furthermore, you learn about the **value of food**, noticing, for example, that it is not available all year round. This is one way of making people understand the **origin of food** (Leeds, a4, 97–99) and raise awareness of the need for regional economic cycles, for example in fruit and vegetable production, the importance of gaining independence from the international world market, which could collapse in an oil crisis (Potsdam, a4, 26–29, 173–209). This might, in the long term, lay the foundation for **respecting the environment in all aspects of life**. “Growing food helps in educating your children because they understand what fertile earth is […] that […] produces food. […] Yes, it is a new culture that they bring home from the allotments. Then the families become convinced that they have to respect the environment in all aspects of the everyday life.” (Milan, a3, 20–23; 4647). People active in nature-related activities early in their live, but also later, most probably develop **long-term environmental civic engagement** in the field of green spaces, e. g. in voluntary land stewardship (Copenhagen, a3, 59–60) or in another area.

The motive of ***knowledge transmission / education to create awareness*** also comes to the fore in aspects relating to **education / learning** in the empirical data. If people have created a communication and meeting place such as an urban garden for example, this allows them to socialise, develop ideas, make plans, unfold their creativity, interact and give their opinion (e. g. Milan, a4, 84–87; Potsdam, a4, 43–45; 144–149). In all these activities, **democratic rules and cooperation** are practised. Furthermore, several empirical examples across the cities show that this can be an **inclusive** process across different **cultures, generations and social positions**, countering cities’ ability to alienate and create anonymity as well as its gentrification–segregation tendencies, in order to ultimately contribute to a more inclusive society. Whereas some projects officially foster the integration of migrants, this is an implicit goal of others, often happening by chance. For example, in Milan an association manages a small part of a big public park near a school in the most multicultural part of the city, on which it has started urban gardening and farming. Fostering integration is, besides achieving a positive use of the park, the main objective (Milan, a4, 7–9). In Potsdam, some of the urban gardening projects are explicitly intercultural gardens, which work with migrants, schools and kindergartens in the neighbourhood. In Dortmund the traditional allotment garden clubs have adapted their statute, now also providing raised beds which can be worked on by people in a wheelchair or on a wheeled walker (Garzillo and Ulrich 2015, 312).

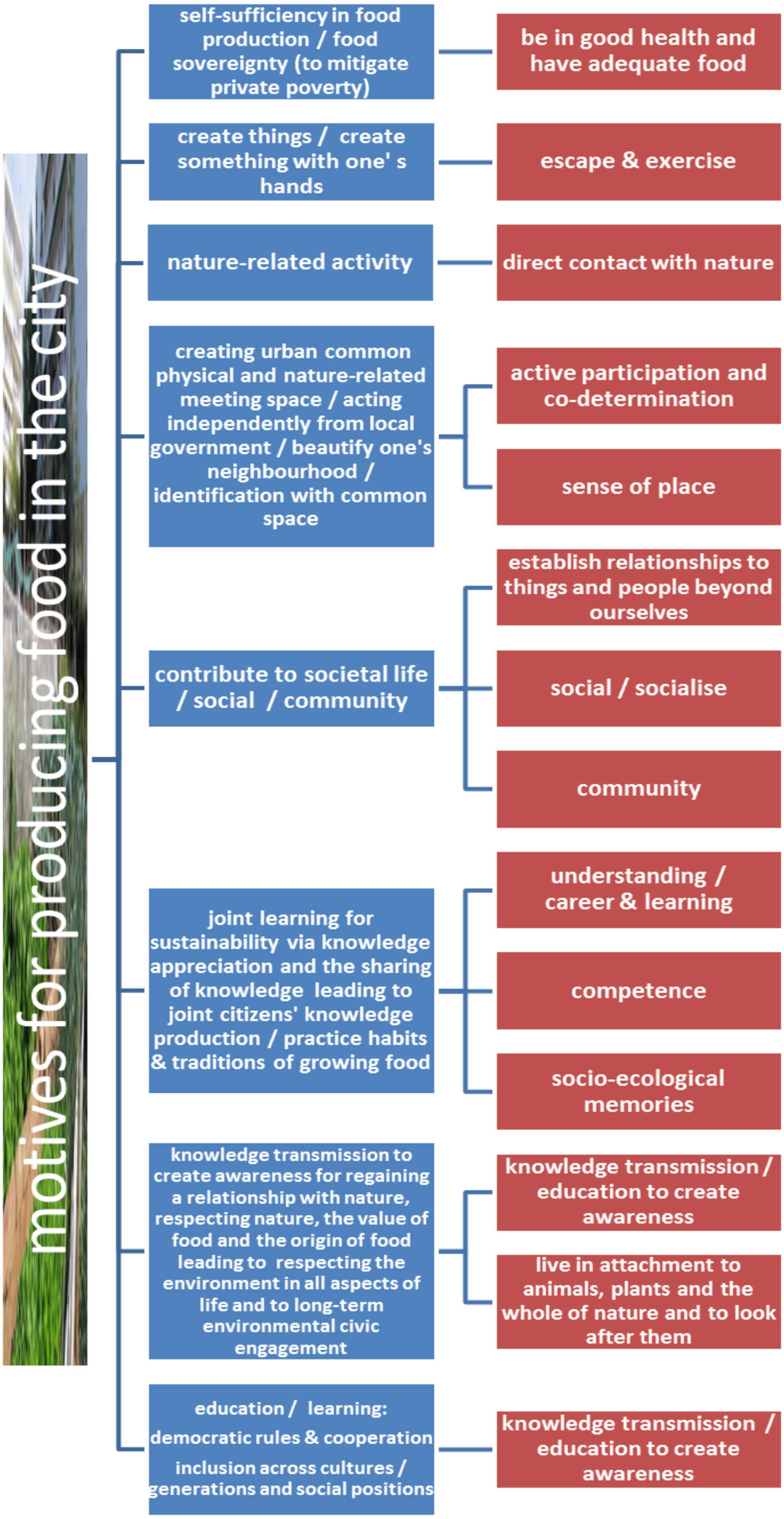
motives for producing food in the city
self-sufficiency in food production / food sovereignty (to mitigate private poverty)
be in good health and have adequate food
create things / create something with one' s hands
escape & exercise
nature-related activity
direct contact with nature
creating urban common physical and nature-related meeting space / acting independently from local government / beautify one's neighbourhood / identification with common space
active participation and co-determination
sense of place
contribute to societal life / social / community
establish relationships to things and people beyond ourselves
social / socialise
community
joint learning for sustainability via knowledge appreciation and the sharing of knowledge leading to joint citizens' knowledge production / practice habits & traditions of growing food
understanding / career & learning
competence
socio-ecological memories
knowledge transmission to create awareness for regaining a relationship with nature, respecting nature, the value of food and the origin of food leading to respecting the environment in all aspects of life and to long-term environmental civic engagement
knowledge transmission / education to create awareness
live in attachment to animals, plants and the whole of nature and to look after them
education / learning: democratic rules & cooperation inclusion across cultures / generations and social positions
knowledge transmission / education to create awareness

Figure 11: Motives for producing food in the city

The variety of learning options that urban green commons provide via the active management of land by users are encapsulated by Colding and Barthel (2013, 163). They include “environmental and ecological learning, […] learning related to social organization, the politics of urban space, social entrepreneurship, as well as […] [for] community empowerment […] and for fostering of democratic values." In a contribution to the first conference on the relationship between commons and poverty, Salzer (2013, 284, author's translation) provocatively asks whether “the manifold alternative projects around food and its production are a brick to a juster and more egalitarian society or yet only the expression of hedonistic lifestyle-concepts, a playing field of well-off citizens’ daughters and sons”. This section has shown that there are manifold motives for producing food in the city. It is possible that part of the the movement is just a temporary trend and might soon vanish. Yet there are clear empirical signs that there is something more profound and longer-lasting in the movement. Particularly joint activities relating to green urban spaces can be seen as opening up discourses and providing common ground for the flourishing of ideas, ideas of how to become active in improving, in concrete terms, living conditions locally, while maintaining a global perspective, with topics such as food sovereignty and sustainable agriculture. With reason, the (re)awakened trend of producing food in European cities can be considered the “beginning of a paradigm shift, which does not only regard nutrition but also the topics of solidarity, biodiversity, democracy, the active sharing of public space, self-determination and quality of life” (Salzer 2013, 293, author's translation). It offers a joint learning field for sustainability. That is sustainability understood in the ecological, social and economic dimension, including justice for other world regions and for future generations.

4.3.2.6 Outlook

With a rising discourse surrounding **food sovereignty** (e. g. Potsdam, a4, 26–29), being self-sufficient in food production is becoming ever more important and yet is faced with *limits of space*: “The vegetable garden you have on the roof won’t feed you” (Paris, a3, 53). According to one actor, there are more options in less dense cities, such as Detroit or London:

> “There is a discourse around complementing people’s nutrition […]. If it works like this, it’s probably because they have a lot of land. The same applies to London when they made gardens and grew vegetables everywhere [during the Second World War] […] because it was a matter of emergency. They needed to eat … so they grew leaks on every roundabout. It may have been a small complement.” (Paris, a3, 55, 57)

Therefore, some actors yearn for an **extension of urban food production**. For example, in Leeds there are projects starting that try to produce food not necessarily in green spaces but indoors, e. g. setting up “hydroponic, aquaponic, and other forms of intensive agriculture within derelict buildings” (Leeds, a4, 93–95). Green roofs and **roof cultivation** are still almost inexistent. The latter was only mentioned explicitly in Gothenburg (a4, 84–86). **Urban farming** can facilitate urban food production, as in the case of Gothenburg. There, pig farming was brought into the city by a charismatic person, who had a good relationship with the local administration. They prepared the soil for food production which could then start (Gothenburg, a4, 84–86).Urban farming is still less widespread than urban food production, only mentioned in three cities: In Milan, an association managing a small part of a big public park near a school has started urban gardening and farming with some animals (Milan, a4, 7–9, 52). In Leeds, the first British urban farm was created, organising meetings for school groups and families (Leeds, a4, 30–36; 82–86). To fully use the potential of urban food production, an actor suggests to **extend** urban gardening, agriculture and farming activities which are so far mainly done on public space **to private property**. This is especially important for dense cities, with even less amount of public green spaces. Historically, the urban gardening movement stands in the tradition of allotment gardens, which are in some countries mainly on private land (Copenhagen, a2, 76–78). Yet, this is only possible with the owners’ consent, as the case of Innsbruck shows where the citizens' attempt to start urban gardening on fallow private land was stopped by its owner (Innsbruck, a3, 76–77).

The interviews also reveal that dealing with urban food production very often implies a sensitivity to linked issues such as the **value of food** in general, connected with the topic of **food waste** (e. g. Aalborg, a4, 104–106) as well as the need for **local** and **organic food**. In Potsdam, a local NGO sets an example by cooperating with supermarkets from which they receive food, which would otherwise be thrown away, to prepare their meals (Potsdam, a4, 26–29). Making use of regional food cycles as consumer and producer is an important part of sustainability since by promoting regional agriculture, transport is reduced (Dortmund, a4, 16). People are willing to spend more for locally grown organic food, thus for good quality products, in places with comparitively high purchasing power (Potsdam, a4, 113). Sometimes, even the food industry starts to become aware of the sustainability issue. A supermarket chain, although still importing goods from all around the world, has started a local growing initiative with schools[43] in which schools receive seeds advice and small sums of money to grow their own food (Leeds, a4, 72–74). Awareness about consuming healthier food and minimising the toxin content of foods, is on the rise (Aalborg, a4, 104–106). Politics needs to be one driving force to attain a higher share of organic food (Linz, a4, 34–35). The EU legal framework for organic production must be adapted to local conditions. In North Sweden, additional artificial light must be allowed for organic greenhouse cultivation of vegetables, otherwise they cannot produce organically any more (Gothenburg, a4, 103–105).

4.3.3 New coalitions to take care of public green spaces

For the majority of cities, communication of actors within and across sectors is reported, possibly leading to higher levels of cooperation and collaboration (e. g. Copenhagen, a4, 15; Innsbruck, a3, 45), which might in turn lead to a shift in the constellation of actors in the local arena. To understand such a change, it is helpful to start from the status quo as assessed by respondents. They were asked which actors show **leadership** in the governance of green spaces. Overall, local community groups play a major role. The regional distribution shows that *civil society is less influential in the East*, since local environmental NGOs and other local community groups assume the leadership role less often than in the other regions (cf. Figure 12). Why do civil society and economic actors enter the local arena or gain more influence in it and how do they interact with more established actors? These questions cannot be answered without shedding light on the cities' financial situation, as shown by the empirical examples below.

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[43] With the name *Let's grow*

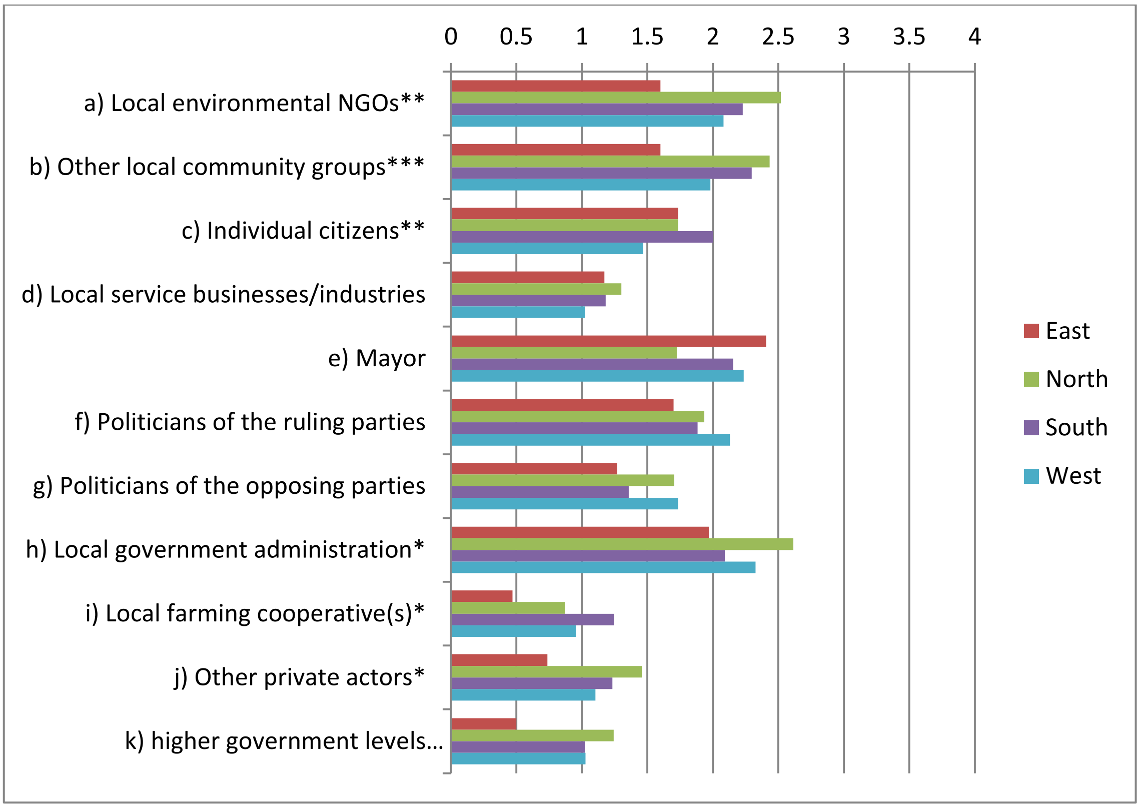

Figure 12: Regional differences in actors showing concrete leadership (reputation and capability) in green spaces management (scaled from 0: none to 4: very high)

Problems with the public budget are mentioned in every region and have reached the state of public poverty in some cities. “Especially in cities in which local governments have severe difficulties in affording the provision of green space, new self-organised initiatives have emerged on the grassroots level for maintaining and even developing those, thus tackling local challenges and becoming active players in local governance processes.” (Sauer et al. 2015, 90) Here, **self-organisation mitigates public poverty**. Where the public budget suffers most, there is a high probability that self-organisation emerges. Civil society actors, sometimes in cooperation with economic actors, become active in the maintenance of green spaces, e. g. by cleaning them (Sibiu, a2, 68–71; Thessaloniki, a3, 19–20) or by contributing voluntarily to public green space management (Milan, a3, 36–37 and a4, 101–102; Naples, a3, 71–76 and a4, 31–32, 46–47, 56–57; Thessaloniki, a3, 20–21, 41–44, 85 and a4, 13). This trend has been increased in the aftermath of the multiple crisis from 2008 onwards, with austerity policies putting high pressure on local public budgets (Rome, a1, 35). Many cities have realised that involving these actors deliberately in the governance of green spaces can save costs (e. g. Milan, a4, 35–38; Naples, a3, 75–76). Hence, in several European cities, local authorities commission civil society actors to care for green spaces. Cities opt for assigning the management of public green spaces to associations as well as to private companies (**adoption**). “On the topic of green areas we're doing the adoption of green areas by citizens, this is also important in this time of scarcity of resources. Involving citizens not only in the planning but also in the maintenance which has high costs […]” (Rome, a1, 35). In Milan, the initiative to give abandoned land to citizens to take care of came from the municipality (Milan, a3, 67–70). Citizens can join associations and organise, for example, the cleaning of parks, while the administration provides the legal framework for these actions (Madrid, a3, 52–59 and 70–75; Naples, a3, 71–76 and a4, 31–32, 46-47, 50–51; 56-57)[44]. In Larissa, a private company in cooperation with civil society actors adopts public green spaces in deprived areas to take care of them, turning them into parks accessible to everyone (Thessaloniki, a3, 20–21).

The aforementioned examples show that **cooperation takes different forms** and can either be **initiated from the top down or from the bottom up**. Spontaneous self-organised initiatives might be taken up and even fostered by the local government. Or, it can be that the local government that provides a concrete sphere of activity for citizens and companies to become active from the beginning. And sometimes it is the citizens themselves who have asked to help and support local government: "Citizens […] often ask to be able to help with day to day support in their neighbourhood small green area." (Rome, a1, 35)

However, these new forms of collaboration are in most places **not yet anchored institutionally**. Most projects are still in the trial phase, not having been evaluated yet. They often still **miss clear rules**, for example **responsibilities are not clearly assigned to stakeholders,** so that cooperation does not run smoothly yet. This is also due to legal obstacles, since still "the field of application for licensing and delegated management systems by the public authorities is a narrow one" (European Commission 1995, 74). For example in Milan the municipality uses tendering measures to give a small amount of allotments to associations. The application requires a lot of time resources from the associations and creates competition between them. In one case, accessibility to green spaces was reduced by assigning their management to a golf association that limited access to its members (Milan, a3, 44-45, 54–55). In some cities companies and associations have to pay for the maintenance costs when adopting a piece of council land which disadvantages local associations, since they usually dispose of a smaller turnover than companies (Naples, a3, 75–76). Some associations and businesses even acquire maintenance equipment. In Thessaloniki, an initiative of park renovation was started by two civil society groups together with an economic actor, providing material, volunteers as well as financial means. The local administration was neither able to provide them with soil which would have cost around 500 euros, nor with professional support such as workers or machines (Thessaloniki, a3, 76).

Following the principles of **participatory local governance and urban development**, citizens and economic actors alike should be involved in the governance of green spaces. Yet, at this point it must be emphasised that this should not lead to letting local governments off the hook for green space governance. On the contrary, the **coordination role** of local stakeholders is even more demanding, because when new players enter the arena, interaction and cooperation need to be structured and institutionalised[45]. Social innovative forms of self-organisation can complement and advance existing green spaces maintenance while at the same time also providing numerous social, ecological and even economic benefits. Yet, they can neither solely constitute public green space governance nor can "social innovation […] be […] a substitute to current social policies" (Hubert et al. 2011, 41) by assuming tasks inherent to the welfare state. If they support welfare state functions, they should get the appropriate funding to do so and can then be a valuable complement to state welfare structures, as also suggested by an actor from Milan: "These initiatives […] have a great potentiality […]. The retired person that has the allotment does not need the social services […] the people that have social ties do not need the municipality support, so if the municipality supports the associations, the associations supports them" (Milan, a4, 35–38). This risk of an emerging "(problematic) policy agenda for 'outsourcing' traditional welfare state functions to community groups" (Seyfang and Smith 2007, 587) should be kept in mind.

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[44] Yet, mere cleaning actions are also seen critically by civil society actors. In Sibiu a local NGO organised cleaning actions of green spaces, yet later discontinued saying that the actions were counterproductive since the people that clean are already aware of its necessity, so practically they clean for people who do not have this awareness, without creating any change in awareness (Sibiu, a4, 54–57).

[45] Parts of this coordination task could be outsourced to NGOs still anchored in the local government as suggested by a Danish actor, e. g. for the local coordination of upscaling small-scale projects (Copenhagen, a4, 74–75).

4.4 Barriers and conducive conditions for citizen participation and self-organisation

The evolvement of citizen participation and self-organisation can either be hindered or supported and even accelerated. Barriers are reported from all regions and can mostly be cross-checked by identifying their opposite under the named conducive condition. A twenty-year-old document of the European Commission (1995, 23–24) carves out the main barriers and conducive conditions for the emergence of local development and employment initiatives which, when confronting them with the empirical data, have also proven to be factors influencing the emergence of citizen participation and self-organisation in green spaces governance. The report notes the existence of structural obstacles such as institutional, financial and legal ones.

Institutional barriers become evident when actors from all sectors report about *administrative procedures* that are complicated and *inefficient*, suffering from a high degree of bureaucracy. They are also seen as being *non-transparent* and non-informative, e. g. in the process of allocating allotment gardens (Bilbao, a4, 40–47; Milan, a3, 44–45, 67–70; Naples, a3, 90–91 and a4, 50–51, 65–75). City administrations are often large institutions with *insufficient interdisciplinary cross-sector communication and cooperation* capacities (Strasbourg, a4, 51–52, 74–75). This can produce contradictory sector policies (Glasgow, a4, 45–48), which makes it difficult for civil society actors to identify the right contact person. For example, the responsibility for trees might be split between three different departments, yet there is no collaboration between them, even if officials are fully aware of this lack (Lodz, a4, 25, 30, 59). Conducive **institutional conditions** emerge if public institutions are supportive. Having internalised the added value of citizen participation and self-organisation, they act accordingly, supporting citizens. This means that they have a *transparent* way of working with *clear institutionalised communication and information channels* to citizens (Lugano, a3, 124–125; Naples, a4, 90–93), as well as from citizens to local authorities. "This confirms the need for information rules which 'affect the level of information available to participants […] [and which must] relate to the set of all possible channels connecting all participants in a situation' (Elinor Ostrom 2005, 206). Clear communication also means that when participatory tools are employed, administration has to break the technical language down into a *language easily understandable* by citizens." (Sauer et al. 2015, 90)

The still continued predominance of the sector-specific logic of public administration contrasts with civil society's **holistic and integrative approach** to concrete local problems (Sauer et al. 2015 forthcoming). Ideas coming from civil society actors are not sufficiently valued and taken up by local authorities. For example in Lodz, civil society actors organised workshops for civil servants on the "improvement of management of green areas in the city or sustainable development in general" (Lodz, a4, 30), which were not attended by decision makers themselves but by their representatives. To overcome this logic, participation and multidisciplinarity must find their way into local governance since they are essential in not leaving out important aspects in policy making (Timisoara, a4, 128–131). This also means to acknowledge and make use of *citizens' local expert knowledge* (Copenhagen, a3, 61–64 and a4, 52–53; Saarbrücken, a4, 67–73). A Polish actor points out that the local government can profit from civil society's input, if the latter makes constructive propositions on what and how things can be improved, by analysing which barriers exist and trying to remove them. He advises against an open confrontation with the local government, since arguing about lack of financial resources and pointing to a lack of professionalism of civil servants and politicians is a simplification. Civil servants are subject to institutional constraints and are lacking good examples of how to solve problems differently (Lodz, a4, 39–40). Good examples to break up this sector-specific logic and to come to a multi-disciplinary approach preventing important aspects being missed out, and thus approximating civil society's logic, come from Denmark. In Aalborg a sustainability department has been created which coordinates and promotes the policy strategy on sustainability. The idea is to mainstream sustainability issues into all sector policy plans, keeping them as cross-sectoral as possible and developing cross–sector strategies (Aalborg, a4, 14–16). In Copenhagen, administrative staff has understood that innovative integral thinking is needed, in contrast to not looking across the boundaries of one's own profession (Copenhagen, a4, 22): “You have to work across traditional silos, sectors and professional barriers. […] there are overlapping communications between departments and professional fields – some interesting opportunities that can create value on several levels” (Copenhagen, a3, 13-14).

In many cities there is the will to let citizens participate, which is even prescribed by law. Yet, there is a **lack of concrete policy tools** (Bilbao, a3, 52–59; Madrid, a4, 84–91; Rome, a1, 77–78). “There is no institutionalised regular mechanism of participation, for example via a regularly meeting council (Bilbao, a4, 40–47; Milan, a4, 76–83). Instead, citizens are involved case by case.” (Sauer et al. 2015, 91–92) In cases where there are concrete policy tools, it is possible that citizens **are not well informed** about options to participate (Bilbao, a3, 103–108; Cracow, a4, 74–77; Milan, a4, 76–83; Sibiu, a3, 85–91 and a4, 114–115). If they are informed, a **complicated** technical **vocabulary**, not easily understandable for citizens might be used (Bilbao, a4, 70–75).

Several actors stress the importance of **political will** and courage within local authorities as preconditions for allowing citizen participation and to give room to self-organised initiatives (Bilbao, a3, 37–38; Leeds, a4, 58; Linz, a4, 36; Saarbrücken, a4, 28–29; Sibiu, a2, 52–55). Local authorities must be *proactive* and have the sincere intention of involving citizens, being convinced of the value of citizens' input in the long term (Aalborg, a4, 42–45; Gothenburg, a4, 45–46), thus *recognising citizen participation and self-organisation as a constituent part of democracy.* In reality however, participatory tools might be used just because they are required by law, as circumscribed by a Danish actor as “tick a box” (Copenhagen, a3, 36), without influencing further policy outcomes (Copenhagen, a3, 36–37,61–64; Istanbul, a4, 33, 61; Lodz, a4, 13; Paris, a4, 65–66). They might only be drawn on, if they fit the political planning process and might only be suggested at a late stage (Cracow, a4, 74; Saarbrücken, a4, 54). If true will is missing, self-organisation might still emerge in forms of protest against established structures but never in collaboration with local authorities (Bilbao, a4, 40–47; Istanbul, a1, 81 and a4, 55–56, 61–66; Lublin, a4, 24; Madrid, a4, 70, 84–91; Saarbrücken, a4, 67–73; Thessaloniki, a3, 32–33 and a4, 22, 32–35). If such protest *comes late in the planning phase*, chances for success are small, as in the case of citizens' protests against construction projects (Lodz, a4, 35–36). Little democracy, beyond voting, exists where the *local government* is *indifferent* towards self-organised initiatives (Thessaloniki, a4, 71–76). They may even be regarded as a *disturbing factor* in political and administrative routines. Ostrom has shown that in cities where local authorities do not value civic engagement or even consider it to be irrelevant, citizens reduce their endeavours to persevere preservation with community issues (Volker Stollorz 2011, 64). According to one respondent, associations that want to take care of a green space and that would even take over the costs for this are only allowed to do so because of the city's desolate financial situation (Naples, a3, 76). In Timisoara the socially innovative idea of putting up green roofs which came from civil society actors was not taken up by local authorities, even though the structure of the socialist buildings, with several floors, lended itself to the installation of green roofs. Civil society actors even invited business experts from Germany to present a viable green roof solution to the local authorities (Timisoara, a4, 43–48). In the same city, although suffering from a serious lack in green infrastructure, the city's most biodiverse green space next to the river was sealed and built on without leaving an ecological corridor, disregarding the knowledge about its ecological importance provided by an NGO (Timisoara, a4, 30, 98–100). The extreme case of *political oppression* ranging from hindering NGO operation to physical violence during demonstrations was only reported from Istanbul (a4, 73–

80). Lacking political will can stem from the fact that local authorities are *not* yet *used to applying citizen participation tools* and are *afraid of being criticised* by citizens (Lugano, a3, 110–120), or they *do not trust citizens* to be able to decide for the common good, insinuating that they only care for their own interest (Lugano, a4, 61–68). This shows that they are not used to the idea of citizens becoming active in common good matters beyond their voting right (Glasgow, a3, 49 and a4, 77; Sibiu, a3, 104–110 and a4, 189–190; St. Gallen, a4, 9–10; Strasbourg, a4, 93–106).

The **will to collaborate** must exist between actors within and across all sectors. Where no collaboration—possibly on an equal footing—exists, public authorities do not *recognise that "citizen participation and self-organisation are the constituent part of democracy"* (Sauer et al. 2015 forthcoming, chapter 10, subchapter 7). If it is lacking, then there is no synergy between public authorities and civil society (Milan, a3, 44–45 and a4, 76–83). In Cracow, a committee for public dialogue was initially "treated as a necessary evil" by civil servants, and some civil society organisations were rather aggressive, leading to conflicts festering (Cracow, a4, 50–51). Several actors stress that communication and collaboration between actors across sectors, but also within one sector, still has to improve (Cracow, a4, 31–32; Larissa, a4, 89; Strasbourg, a4, 70–75). In other cases it had existed until differing interests produced conflicts and the relationship broke down, leading to a halting Agenda 21 process (Bilbao, a4, 44–47; Saarbrücken, a3, 27–30; Rome, a1, 33, 35). In Madrid, there is collaboration between environmental groups and left-wing political actors. However, environmentalists have not yet gained a political, institutional space (Madrid, a4, 41–42).

In cities advanced in the SET, "a process of *collaboration* and *compromise-finding* can be detected (Bilbao, a3, 39–44; Innsbruck, a3, 44–45; Linz, a3, 36–37; Rome, a1, 30–31) […], comprising a high degree of citizen participation from the beginning of the process (Sauer et al. 2015, 97, original italics). Through participation and self-organisation, *new actors are entering the local arena* and become involved in the decision-making process. This requires more sophisticated management and **coordination**. "R*ights and duties of each party*, for example of public authorities, citizens or associations, *need to be* clearly *defined*. […] Otherwise, civil society actors do not understand which tasks are delegated to them. These defined rules need to be controlled because there is always the risk of someone taking advantage of her power (Rome, a1, 48–49). *Conflicts* emerge when stakeholders' power position risks being threatened by newly incoming actors. Thus, in a first step existing local power structures need to be analysed and understood. In a second step, ways of involving potential stakeholders in rule finding without bypassing present stakeholders must be found." (Sauer et al. 2015, 99, italics added). "Participation procedures cannot be improvised but follow certain criteria. Clear rules as well as training for political and administrative staff on these are necessary" (Sauer et al. 2015, 90) in order to enable local authorities to handle this increased complexity (Naples, a4, 44–48).

Lacking political will also has to do with **political actors' dependency** on *election votes* and *economic actors* (Sauer et al. 2015 forthcoming). Policy makers want to be in control since in the end they are responsible for the political decisions taken (Copenhagen, a2, 79–81). Participatory procedures contain the risk of prolonging decision making (Copenhagen, a2, 79–85 and a3, 65–66; Linz, a4, 81–84; Lugano, a3, 152–153; Strasbourg, a4, 93–106). Therefore, they do not easily give up a command-driven control. Particularly in times of scarce public resources, lobbyists' and investors' voices might count more than citizens' will, neglecting participatory measures or disregarding their outcomes in the end (Gothenburg, a3, 99–100).

Public funds tend to provide short-term instead of long-term support (European Commission 1995, 23). Since *organising participatory procedures* is difficult and *requires time and resources* (Copenhagen, a2, 79–85 and a3, 65–66; Linz, a4, 81–84; Lugano, a3, 152–153; Strasbourg, a4, 93–106), there is an increased risk that funds to implement citizen participation and to allow for and support self-organisation will be cut, especially in times of tight local budgets (Saarbrücken, a4, 67–73; Thessaloniki, a4, 71–76). The existence of public and private **funding** schemes, e. g. from foundations, but very importantly also from the European Union, is decisive

(Copenhagen, a3, 36–37; Milan, a4, 97–98; Sibiu, a4, 88; Timisoara, a3, 69). Some European funds are also accessible for local civil society actors, such as small associations. “Individuals and institutions with the knowledge of how to successfully apply for funding (for example from the European Union) are of key importance here.” (Sauer et al. 2015, 97)

The European Commission (1995, 24) finds that “legal systems often appear to militate against new initiatives” and that “most projects, when innovative, tend to clash with the inflexibility of existing legal instruments” (European Commission 1995, 74). This is confirmed by the empirical data. A too inflexible **legal framework** can hinder civil society’s activities instead of providing a regulative supportive frame for small-scale experiments. Innovative bottom-up solutions might meet legal obstacles, for example by the prohibition of selling food produced in urban gardens in schools (Gothenburg, a4, 87–92). In Milan, the Agriculture South Park was built by the Region 25 years ago. However, the land can only be used for traditional agriculture, not for example for urban gardening or allotment gardens (Milan, a3, 40–41). The legal framework also determines the degree of *local autonomy*. If it is too small, as for example in a centralised system where the municipal council has little power, participation is discouraged (Larissa, a3, 78–79). The legal framework should be supportive of small-scale experiments of citizen participation and self-organisation. Yet, often innovative ideas cannot be implemented because of a Public Procurement Law accepting only the cheapest solution. Innovative potential should also be a criterion to receive funds. One actor puts it that way: “There must be clear and transparent criteria, because these are public funds, but there must be such a vision, some space must be given and the possibility to assess the whole concept, perhaps innovative, perhaps going beyond the framework, to make it possible, so there are not such typical technocratic rules that do not allow us to spread our wings.” (Lublin, a1, 54)

“**Lack of trust** on the side of citizens is reported from every region but the West (e. g. Cracow, a4, 22–27; Glasgow, a3, 49–58 and 61–64 and a4, 77–80; Lodz, a3, 119–126). It can be due to the secret—sometimes illegal—dealings between the public and the private sector with concomitant exercise of influence experienced by citizens (Milan, a3, 83–84). As a result, people can end up refraining from joining associations and stopping caring about the common good (Milan a3, 56–59 and a4, 26). Citizens might not trust association leaders any more, if they have experience of them being led by personal interests in the past (Larissa, a3, 72–75). They may also have experience of political scandals at higher levels as well as an inefficient legal system (Jihlava, a4, 80–83). It is also possible that existing participatory tools have been badly managed by the administration so that citizens are tired of them (Bilbao, a4, 40–47).” (Sauer et al. 2015, 94)

Citizens that mistrust local leaders do not participate, because they do not believe that their voice matters in the end (Glasgow, a4, 77–80). Several actors deplore **citizens’ indifference** towards participation and self-organisation. They say that citizens are not interested in the common good or in public matters and believe that only a minority of citizens is active, while the majority is not interested and at most complain (Larissa, a3, 61–62 and a4, 57–62; Milan, a4, 76–83; Paris, a3, 32–41; Sibiu, a3, 122–126 and a4, 77; Strasbourg, a4, 93–108). This can be due to a *lack of civic education* (Thessaloniki, a3, 60). Yet, “a *lack of time* for voluntary activities is also mentioned, with the latter raised in the East and the West as reason for citizens’ non-participation, due to their “fight for survival” (Sibiu, a3, 85–91) for prioritising employment (Bilbao, a3, 103–108; Strasbourg, a4, 93–106).” (Sauer et al. 2015, 94) Historic reasons for citizens rejecting participation are invoked in the East, saying that they associate it with “old-time communist social activism” (Lublin, a4, 49–50).

Awareness-raising through *education* and *information* campaigns about the benefits of participation and self-organisation is an important factor. It is about activating bottom-up action and reaching those who are not yet aware, through a process of communication (Larissa, a4, 41–42; Naples, a4, 31–32; Strasbourg, a4, 93–106). Perhaps these awareness raising processes can be more successfully achieved in cities that are following a rigorous growth logic, despite pre-existing immense socio-ecological problems, since growth’s environmental and social issues are most evident in these cities. If citizens want to participate, and are politically aware, it makes it easy for non-governmental organisations to gather support (Istanbul, a1, 42–47 and a4, 61–66). Raising citizens' interest is also easier with *concrete issues*, directly related to their neighbourhood, than with more abstract planning procedures (Lublin, a4, 34–36). Local activities of good practice in green spaces must be made visible (Timisoara, a4, 148–163), also with the help of *media*, to encourage participation and self-organisation and to raise awareness amongst citizens of the necessity of SET.

Facilitating intermediary actors are crucial to trigger and sustain learning processes of all actors involved which are processes of change and development (Sauer et al. 2015 forthcoming, chapter 10, subchapter 7) Such intermediary actors can be active in all sectors and also across them. "Processes are very often driven by committed key persons […] that have first adopted changing and newly evolving norms and significantly pushed for their manifestation in rules. Here, successful norm-adoption has led to higher levels of trust and cooperation between stakeholders and to vivid institutionalised interaction processes with the joint goal of a socio-ecological transition." (Sauer et al. 2015, 109) "Cities advanced in the transition run innovative projects with citizens' involvement that are then carried on on a voluntary basis, or they take up and support ideas emerging from self-organised citizens' groups. These successful examples have emerged out of *collective learning processes* in which changing and new rules have been internalised." (Sauer et al. 2015, 108–09) To prevent misunderstandings and manage conflicts in a complex system of a multitude of actors, the local government needs to provide an *institutionalised transparent meeting and discussion platform* and coordinate the process.

Local authorities must guarantee that **citizen participation and self-organisation result in "better and sustainable results in all planning- and development processes**" (Sauer et al. 2015 forthcoming, chapter 10, subchapter 7, bold added). One important factor required for this to be achieved is to *involve citizens from the beginning* of the planning process, e. g. in consultations, dialogue meetings and coordination groups, as stressed by actors from all sectors (Aalborg, a4, 82–87; Copenhagen, a2, 61; Cracow, a4, 74–79; Lugano, a3, 121–128; Saarbrücken, a4, 54–59; Umea, a3, 125). If this is not done and citizens are confronted with a fait accompli, they might show resistance and protest at a later stage of the planning process (Lugano, a3, 121–128; Rome, a1, 54–55). A second factor is the necessity to *involve a wide range of actors* in the participatory procedure to make that not only the views of the best-organised group with the best lobbying capabilities, such as associations, are taken into account, with the rest remaining unheard (Copenhagen, a2, 93–94; Gothenburg, a4, 67; Milan, a4, 107–108). Attention must be paid to minimise the "participation paradox" (John E. Seley 1983, 20), "meaning that groups with higher capacities to express their opinions are primarily listened to by policy makers, disadvantaging less powerful civil society groups." (Sauer et al. 2015, 95) Experience has shown that successful involvement is achieved by undertaking activities that appeal to different groups of people, otherwise only those who are already committed come (Copenhagen, a3, 17–18; 65–66; Leeds, a4, 15–19). **"**Local authorities can *encourage* and *facilitate* self-organisation, for example by coordinating volunteers' involvement and by supporting emerging initiatives financially or by providing space, material and soil." (Sauer et al. 2015, 98)

The examples of forms of collaboration that have not yet been institutionalised (cf. 4.3.3) illustrate the need for a local policy framework that **provides and supports an open space** for evolving initiatives where experiments and errors can be made and joint learning takes place. The *innovative force* of civil society actors must be supported by the political and economic sector, as stressed by a civil society actor:

> "All the human potentiality, many are working on environment issues, people are very active, the city could give an important contribution. So what we are lacking now is the political will and the economic part because the people in Milan are really impressive on this topic. In this park we have an ethical purchasing group, we have fair trade groups […]

Because people want to think outside the political boxes and think about the social aspects." (Milan, a4, 36)

5. Discussion

According to several actors, there is an increasing understanding that green spaces are an important asset for cities, yielding numerous ecological, social as well as economic benefits, making a strong argument for their preservation (e. g. Bilbao, a4, 76–79; Potsdam, a3, 161–166). However, in practice inner-city green spaces are still exposed to high development pressure. In this situation **they can best be protected, if citizens have recognised their value** and identify with these common urban green spaces (Larissa, a3, 63–65). **Involving citizens in green space governance** by supporting citizen participation and providing space for self-organisation can be an effective way of raising citizens' consciousness of their value and can trigger further civic engagement, also in other fields.

5.1 What role can civil society actors play in green spaces governance in European cities?

In times of tight local budgets, the share of the city budget for green spaces maintenance is quickly cut. For this reason, local authorities try to reduce the costs involved with their maintenance. Technical solutions are to plant solely endemic flora, minimise water consumption, and avoid pesticides, in short to follow the simple rule that plants need the basics of water, light and air to grow (Thessaloniki, a3, 66–70). Apart from technical solutions, there is a visible tendency to involve citizens as well as private companies in the governance of green spaces. What are the benefits of this relatively new trend besides the argument of relieving the public budget?

Participation and self-organisation lead to *shared experiences* of a community in jointly being active for the common good, thus creating a consciousness for common matters which is the *basis for sustainability* (Rome, a1, 33). The co-management of common goods fosters civic environmental education, underlines their value and the need to protect them (Rome, a1, 54–55). Involving citizens in green spaces maintenance can thus raise their awareness of the **value of** these spaces, possibly turning public green spaces into **commons**. As expressed by an actor from Rome: "[What] helps a lot also for what concerns the education to common goods, […] is the perception that this is a common good, that is not that it belongs to nobody but that everyone takes care of it." (Rome, a1, 35) The deeper people are involved, the more satisfied they are with the result and the more they use the city, identifying with it and its public space (Copenhagen, a2, 79–81). Participating in the care for public green spaces creates a *feeling of ownership and responsibility* for them and lets citizens become active beyond their voting right (Copenhagen, a3, 36–37; Naples, a4, 22–24; Potsdam, a4, 194–195; Rome, a1, 34–35). The management by local associations can become the centre of **community building** with green spaces becoming a meeting point for all citizens of the neighbourhood, thus promoting integration (Milan, a4, 43–52).

Concerning citizen participation, in terms of the **quality of the outcome**, the results of participatory processes are considered to be better than those achieved in top-down procedures without participation, since the probability is higher that local needs have been taken into account (e. g. Linz, a4, 81–84; Naples, a3, 27–28). Even if citizens have not had their ideas taken on board, participatory processes **increase the acceptance of political decisions**, as citizens have the feeling they have been listened to, and thus taken seriously (Copenhagen, a4, 52–53; Naples, a3, 27–28).

Self-organised activities can particularly serve a **corrective function for state or market weaknesses and failures**. In a Romanian case a landscape architects' association and students generated rapid economic solutions for the maintenance of some smaller green spaces in neighbourhoods, with the support of local government. One of these was the creation of the first Romanian park for blind people. The association attracted funds and also cooperated with the Romanian association of sightless people (Timisoara, a4, 39–41, 83–86). Where associations or companies manage the maintenance of public green spaces, they can *prevent them from becoming dumping sites* and from *private actors' building activities* to emerge, as named by a respondent from Naples:

> "It is exactly here that the citizens need to be, because the private actor relies on the fact that the citizen does not care and it has been 30 years that the citizen is not interested in common goods, so the private actor can enter, pretending that he is improving the area. He might even tell you: 'We have created the parking spaces, we solved the problem of the abandoned park'. So with the excuse of improvement, here concrete and there concrete." (Naples, a4, 48–49; 54–57, 64)

Civil society actors even manage to *create 'green' jobs*, as in the case of a big Greek NGO that has created a Social Work Programme in four peripheries, one of them in Larissa. Here almost 300 young unemployed work in the environmental and green spaces field (Larissa, a4, 14–17).

The empirical data suggests that civil society actors can make a difference in the governance of green spaces. Indications of the **transformative role of civil society** come from every region (e. g. Copenhagen, a4, 38–39; Lodz, a4, 31–36; Lugano, a4, 41–47; Thessaloniki, a3, 41–44 and a4, 13). Civil society becomes active next to established structures, sometimes in the form of protests against them, or activities emerge in cooperation with local authorities, depending on the specific political framework given (cf. 5.2). Some encouraging examples that were not elaborated in the text so far are given below:

- In Germany civil society actors have been influential for a comparatively long time. For example in Dortmund, for 30 years the nature conservation associations have been very active players in the designation of conservation areas, in landscape planning and in the naturalisation of rivers, e. g the project "Ecological transformation of the Emscher system" (Dortmund, a4, 28).
- In Cracow a respondent stresses civil society's transformative role, which emerges despite the local authorities' negative stance: "[…] social activism is certainly a positive phenomenon. It is good that there are numerous initiatives in spite of the hard line taken by the authorities and things are beginning to change" (Cracow, a4, 27).
- In Sibiu an apartment-owner association has jointly decided to install a green terrace roof on top of their building with their own funds (Sibiu, a2, 104–111).
- In Timisoara civil society actors propose local solutions with their acquired knowledge abroad or during studies trying "to find the recipe which works abroad in order to apply it punctually at Timisoara level" (Timisoara, a4, 89). For example, the association of landscape architecture in Romania, also active locally in Timisoara, will make local activities of good practice visible in a practical guide for public authorities, "what they could apply out of the many ideas and projects out there" (Timisoara, a4, 156–157).
- Two of the most creative and innovative examples of civil society action come from Greece. In *Thessaloniki* civil society actors reacted to the city's problems with a "general feeling of extroversion that has been developed during the last years in the city through initiatives, associations and volunteering groups" (Thessaloniki, a3, 9). One example for this "inspiring movement of civil society groups" (Thessaloniki, a3, 42) is the association 'Thessaloniki in a different way'. It was created to promote a different image of the city, defining itself as an "urban experiment in action [and the] greatest creative urban partnership of groups, institutions, private initiatives and volunteers ever in Thessaloniki" (Thessaloniki, a4, 10). The group initiates and conducts actions around cultural, architectural, social and environmental issues, bringing forward lots of creative ideas and innovative proposals. The actions are implemented by a group of people with hundreds of volunteers supporting, often solving city problems such as the case of the regeneration of the harbour and a forest. In *Larissa* numerous innovative initiatives are

> conducted by a large NGO. It has organised lectures and conferences in the field of sustainability, has conducted a youth exchange between Larissa and a Turkish city on climate change issues, as well as undertaking research on a nearby NATURA region, which succeeded in raising citizens' awareness to protect it. Last but not least, it has conducted seminars for farmers and scientists in the field of agriculture, more specifically on the analysis of fertilizers and pesticides, with the double goal of protecting both human health and the environment (Larissa, a4, 14–17, 47–47).

Looking at the data, it seems that social innovation emerges mainly in civil society. Yet, there are also empirical examples showing that **social innovation** can emerge in all societal sectors, it is **not sector-bound**. For example, a company has tried to deliver innovative solutions to contribute to the city's transformation into a more sustainable urban centre and has collaborated in this process with local authorities (Bilbao, a3, 37–38). Another company is active in promoting inner-city biodiversity projects and has made urban gardening part of its planning goal trying to foster mainly urban gardening projects because of the social function they provide (Paris, a3, 23–24). A third economic actor suggests the transformation of all former military camps into green spaces and to connect a nearby forest to the urban tissue in order to increase accessibility and availability of green spaces (Thessaloniki, a3, 81–82). In Lugano two landscape architects were informed about sustainable innovative approaches at their landscape architecture school, as part of their university studies, stressing the possible innovative force of science (Lugano, a3, 124–128). The emergence of social innovation in any sector can be fostered through education. In Lodz it is lamented that the current way of teaching fosters schematic thinking instead of critical thinking or "thinking outside the box" (Lodz, a3, 109–112). This can lead to a lack of innovative thought when people "get very entrenched in how they are going to do things and it is very difficult politically for those things to shift" (Leeds, a3, 108–111).

5.2 Which policy framework allows for innovative solutions in the field of green spaces governance?

The governance of urban green spaces, though embedded in a system of multilevel governance, is mainly determined by local factors and steered at the **local level**. The European and national policy context and legal frameworks set guidelines but leave a wide scope for local governance. Nevertheless, for some issues regional collaboration is also required. For example, concerning the use of free spaces, planning at regional level is necessary (e. g. in the elaboration of a regional development plan) and must include goal-setting in a way that cities cannot play one of against the other (Dortmund, a4, 96; Lugano, a3, 26–27). The necessity of conceding room for manoeuvre to the local and regional level was already stressed in the seventies by European Denis de Rougemont who argued for a *Europe of regions* manifesting itself in a high degree of federalisation and a regional-local interplay of self-governance (Denis de Rougemont 1977, 278). Yet, consequently applying the subsidiarity principle is only one part of his reasoning. It must go hand in hand with **participatory local governance**: "To install a new democracy means, at all levels of public life, *'creating and mastering a project by the ones that are concerned'*" (de Rougemont 1977, 272, author's translation, original italics). The local level lends itself perfectly to practice citizen participation and to reach a renewal of democracy from below (de Rougemont 1977, 266-67.). Citizen participation confers both freedom and responsibility to citizens (de Rougemont 1977, 303). He pleads for a new local governance style which is marked by communication, negotiation and transparency (de Rougemont 1977, 217).

This is surprisingly close to the approach of **interactive governance**, as conceptualised by Jan Kooiman and Marten Bavinck, which is able to deal with increasing "diversity, dynamics and complexity", demanding an involvement of all actors in a network structure which implies their interaction as a basic principle of the concept (Jan Kooiman and Maarten Bavinck 2013, 11). Its assets are described by an actor from Copenhagen: "Via interdisciplinary networks and venues that allow for politicians and citizens to meet and to create ideas and present solutions, mutual inspiration takes place and synergies are explored." (Copenhagen, a3, 16) Traits of this type of network governance become visible for example in Leeds (cf. 4.3.2.2). The concept conceives governance as an interplay between the realms of state, market and civil society (Kooiman and Bavinck 2013, 9), and in this sense it is also close to the concept of **urban entrepreneurialism** which is a

> "pattern of behaviour within urban governance that mixes together state powers (local, metropolitan, regional, national, or supranational) with a wide array of organizational forms in civil society (chambers of commerce, unions, churches, educational and research institutions, community groups, NGOs, and so on) and private interests (corporate and individual) to form coalitions to promote or manage urban or regional development of one sort or another" (Harvey 2012, 100).

Interactive governance allows dealing with the local system's **increased complexity** stemming from the multiplication of actors entering the action arena. A higher number and a greater diversity of local actors increase the conflict potential, for example in rule definition around fallow land or permanent rights of use. "In some cities, boundary rules have partly been shifted: New actors from civil society and business are now eligible to enter positions that before were reserved for state actors only. The process of determining which eligible participants may enter—or must enter—positions and, at a later stage, how participants may or must leave a position (Ostrom 2005, 193) has only just started. This leads to conflict and sometimes disappointment and to the retreat of new actors that invested time and commitment. Due to until now unclearly defined boundary rules, they become sick of participating or self-organising" (Sauer et al. 2015, 95). In this situation it is the local government's task to provide a policy framework allowing for constructive interaction of all actors and to coordinate the process of rule setting and conflict regulation.

The set **goal of urban green spaces governance** must be to prevent the further reduction of green spaces and to possibly re-gain lost ones. This refers to inner-city green spaces but also to the city's fringe area. The concept of the "**green compact city**" (European Commission 2010, 28–29, bold added) means to aim for a compact city, thus countering urban sprawl, while at the same time maintaining or even increasing the amount of inner-city green spaces. In this sense, an actor proposing to effectively improve the urban microclimate via greening all terraces and roofs, which can only succeed, if the public sector participates (Thessaloniki, a3, 24). Also, the value of the relationship between man and nature must be present amongst all urban planners. People working in green spaces maintenance and scientists like ecologists and naturalists are more likely to be aware of this value, while some urban planners might still consider green spaces solely as empty abandoned spaces (Paris, a3, 48–49). In this regard, a report from the European Commission (1995, 73) notices the beginning of a change in the thinking of public urban area redevelopment: "The need to redevelop former industrial areas […] and the growing interest of urban populations in 'green' areas […] have led many towns to change their approach to open, public areas: these are no longer seen as empty spaces but as community areas". The report also points out an "employment creation potential linked with the development of upgrading […] urban public areas […] [for example in] the maintenance of public areas" (ibid). Although it only mentions public-private partnerships, this changed approach can be a starting point to also involve civil society actors more.

Nevertheless, the lack of participation tools is reported from several cities (e. g. Rome, a1, 73–78). Yet, involving citizens more strongly is necessary "since **progress in the socio-ecological transition can only be made with a citizen perspective**, certainly not with a sector perspective. Local authorities need to know what is important to citizens and need to have them as well as economic actors on their side (Copenhagen, a2, 100)" (Sauer et al. 2015, 102). Consequently, more powerful participatory tools are demanded, up to the point of giving citizens a veto power on decisions. It is deemed necessary to "surpass the state of mere consultation, for example on how resources are consumed, to increase transparency of the political process and to let citizens control political actors (Naples, a4, 16–19)" (Sauer et al. 2015, 91). This implies for example to pass from consultation to citizens budgets, referenda and civic audits in order to reach out to all citizens and not only those organised in associations. Other action would be to strengthen neighbourhood associations and also install consultative committees on district municipalities, as well as consult citizens in the street and via NGOs (Bilbao, a4, 97–100; Istanbul, a1, 80–86; Lugano, a3, 150–156; Madrid, a4, 95–100; Naples, a3, 86–93 and a4, 86–93; Saarbrücken, a4, 83–88). This should continue to the point of demanding that citizen participation must become obligatory in all urban development projects (Copenhagen, a3, 36–37). Advanced technology development facilitates the use of participatory tools. Citizens should be allowed to vote via phone/internet on "decisions that directly influence on a specific sphere of life" (Lodz, a3, 58-59). Where participation is already practiced, it can be improved and shifted to higher levels (

Figure 1), as the case of Naples with three concrete examples reveals: Firstly, the city's department for participation needs to gain more power since at the moment the Committees are just round tables elaborating a proposition, which the Counsellor does not have to bring in front of the Council to be accepted or not (Naples, a3, 87–91). Secondly, participation tools (e. g. Committees) should also be introduced at the district level (Naples, a4, 86–93). Thirdly, more powerful participatory tools such as referenda and civic audits[46] should be introduced to hold the city accountable, as "the Committees are there only to give opinions, the civic audit instead would keep the municipality accountable" (Naples, a4, 88–93). Also more space for self-organisation is demanded. An economic actor from Larissa wants the municipality to give citizens' initiatives the right to organise environmental and cultural events in the city's green spaces. "There are several cultural groups with increased activity, related to the green areas of the city at some level, for example, they could be hired to create artistic works in the parks. The city artists, I believe, would accept this offer, even with a small fee, in order to show their works to the public." (Larissa, a3, 67)

In well-run cities that are good at planning (e. g. Copenhagen, a4, 29–30), the chances for successful citizen participation are higher and the local government can more easily assure that **participatory procedures are professionally applied**, not leaving (legal) loopholes for the misuse of participation from citizens or politicians' side, which have been reported from every region (e. g. Cracow, a3, 27–28). When participatory tools are applied only late in the planning process or their outcomes are eventually not taken into consideration, or if individuals and associations try to get through particular interests, participation misses its aim (e. g. Cracow, a1, 50-53; Gothenburg, a4, 67).

In all cities studied, "responsibility for local green space governance remains with local authorities on whose cooperation will self-organised actors are highly dependent to scale up successful bottom-up actions" (Sauer et al. 2015, 109). Room must be given to *joint participatory experiments* "that are evaluated after implementation. If they work, they can be scaled up" (Sauer et al. 2015, 93), as expressed by a Danish actor: "think big – start small – scale fast" (Copenhagen, a3, 36–37, 65–66). Respondents would consider civil society actors to be able to overcome the city's challenges, if local authorities **allowed citizens to take action more** and if political and business actors invested in the activities coming from the citizens (Milan, a4, 35–38). For example, "aesthetic pollution"[47] (Thessaloniki, a4, 22) could be reduced by numerous small actions spreading across the city, such as turning abandoned fields into green spaces and demolishing derelict buildings. This can even relieve the public budget, however cannot be an excuse to further cut the green spaces budget which is already one of the first to be cut in times of scarce public resources due to its low status in municipal planning (Umea, a3, 59–70). Especially in the field of urban food production, innovative ideas have evolved (cf. 4.3.2) that could be developed further as Social Economy options. A command-driven governance approach, where the city allows associations and companies to care for public green spaces has partly been abandoned. Yet, existing collaboration needs to be improved, as shown in the example of green spaces' adoption in Naples. Associations and companies caring for public green spaces should not be left alone with the maintenance task. The local government must set the legal framework, coordinate and support actors with equipment and soil. This way civil society and economic actors can bring in innovative ideas: "[…] maybe you - municipality - have an old employee that takes care of this and uses old techniques and me – association - I can tell you new stuff" (Naples, a3, 75-76). This way the city would still save costs, since the work is done by volunteers. Last but not least, responsibility for taking care of green spaces can also be partly shifted to the renters of properties, obliging them to take care of the green spaces around the property (Lodz, a4, 49–54).

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[46] In a civic audit a group of actors from different background organises an investigation on a specific field of city management trying to identify the problem of management. The city has to deliver information, and the audit identifies problems. The city is accountable to the group.

[47] Here, the respondent refers to decayed buildings and untended public or private (green) spaces that are not nice too look at.

Regarding self-organisation, "the role of the commons in city formation and in urban politics" (Harvey 2012, 87) has to be understood and politically acknowledged. Ostrom's interdisciplinary empirical work has revealed under which conditions a sustainable governance of commons is possible, if users cooperate and certain design rules are followed (e. g. Ostrom 2005). Green spaces governance should make use of this wealth of experience. This means that options must exists for public green spaces to be turned into urban commons via citizen action. **Green spaces governance, guided by the idea of considering public green spaces as commons,** entails cross-sectoral collaboration, demanding that the state must "supply more and more in the way of public goods for public purposes, along with the self-organization of whole populations to appropriate, use, and supplement those goods in ways that extend and enhance the qualities of the non- commodified reproductive and environmental commons" (Harvey 2012, 87). In practical terms this could mean confering the right to manage green spaces to citizens (Colding et al. 2013, 11).

In order to foster and institutionally anchor ongoing experiments in green spaces governance across European cities, **urban gardening needs to become an urban planning goal**, following lighthouse projects such as the concept of *The edible city* in the German town of Andernach, where the city's green spaces' concept for public space includes the transformation of flower beds into vegetable and fruit plantations (Potsdam, a4, 168–171). Another encouraging example, yet currently remaining in the state of a project idea, is the spatial concept for urban agriculture and metropolitan food policy *Agropolis München*. An interdisciplinary group of architects, landscape architects and urban planners conceived a project that makes sustainable food production, distribution and consumption basic constituents of urban development. This group, pursues the four interconnected goals of "sustainable production of healthy food, […] qualification measures and jobs as well as scope for existing knowledge and interest (e. g. of the elderly, unemployed, immigrants), […] [and] the creation of conscience and transparency for food and its production" (Jörg Schröder et al. 2010, 12).

Where examples of **social innovation in the state sector** exist, the guiding principle mentioned in the previous paragraph can be reached more easily. Urban innovation can be launched by bottom-up actors, yet can also be initiated by local authorities and political actors in power. For example, in Jilhava, the mayor pursues an "enlightened approach of city government [having] created a heterogeneous team of visionaries" (Jilhava, a3, 38–39) which takes decisions and actions. The team consists of local people but also of people who are not from the city. Some of them had no experience in governing a city, e. g. knowing about budget allocation, so "they were not limited by the financially limited thoughts and could come up with interesting ideas" (Jilhava, a3, 38–39). Others were not politicians and therefore non depending on re-election, thus they were not forced to fulfil pre-election promises. Examples for urban innovation initiated from within the local administration come from Copenhagen and Saarbrücken. In Copenhagen there is a palpable feeling of entrepreneurship in the municipality. Civil servants are very motivated and even passionate about their work, and they are given resources and the allowance and space to realise their innovative ideas: “It is easier to be an employee in the City of Copenhagen than in other municipalities in the world […] is less bureaucratic […] there are better options for ‘entrepreneurship’ in the municipality […] some really good innovative people [who are really passionate about what they do – and they are allowed to do so” (Copenhagen, a3, 51-52). In Saarbrücken, a civil society actor underlines the creativity of the head of green spaces’ department in promoting sustainability aspects in green spaces maintenance with less resources.

6. Conclusion and policy recommendations

6.1 Conclusion

This paper dealt with the question of how, in the face of global threats like climate change and biodiversity loss, a SET in the resource system green spaces of European cities can be realised and civil society' role examined in this process. The key assumption of this paper was that such a transition is unimaginable without the involvement, active participation, and self-organisation of socially innovative bottom-up actors. Indeed, the continuing and rising pressure on urban green spaces has made the local level a field of civil society action. Citizens have become increasingly aware of the importance of inner-city green spaces and are reacting to the trend of land consumption for building and infrastructure development, of commodification and privatisation tendencies. They protest against the disapperance of green spaces, become active in the maintenance of public green spaces, or grow food in them. These forms of self-organisation to reclaim and reappropriate public spaces in order to take care of their use and management can be considered as a process of urban green commons creation. By changing existing urban spatial structures and creating new ones, prevailing power structures are challenged and democratic processes strengthened. Civil societys' diverse, often creative, actions can be considered as fights about the creation of urban space against incumbent power relations and opens up a public discourse about the use of urban space. Thereby, citizens become aware that they can influence the local governance of green spaces and thus take part in designing their city, possibly calling for more citizen participation and self-organisation options also in other policy fields. In some places initial protest has evolved into constructive collaboration across sectors and a higher degree of citizen participation.

Urban food production is one example of urban green commons being actively managed by its users. The reawakened interest in producing food in cities shows that citizens want to actively participate in the creation of urban common space. A motive often stated for participating in growing food in the city, was the wish to have a common outdoor nature-related meeting space to be able to identify with. Jointly growing food in cities provides a variety of learning options for sustainability. From these experiences a "lost" relationship with nature can be rediscovered and regained, which might lay the foundation for respecting the environment in all aspects of life as well as developing long-term environmental civic engagement. Furthermore, democratic rules and cooperation are practices across different cultures, generations and social positions, countering cities' alienation and gentrification-segregation tendencies, in order to ultimately contribute to a more inclusive society. These joint activities open up discourses and common space for ideas of how to become active in improving in concrete terms living conditions locally, while also having in mind the global perspective. They can raise awareness of the value of land as a common good and for rethinking cities as food production sites. Knowledge of growing food is transmitted and issues like food sovereignty, sustainable agriculture and the value of food, also linked to the topic of food waste and the need for local and organic food, are raised.

The data revealed that self-sufficiency in food production is of increasing importance, especially in Southern Europe, in order to mitigate private poverty. Food sovereignty, especially for citizens of a lower economic status, has become an issue, particularly in the aftermath of the multiple crisis from 2008 onwards. In this regard, the research has also shown that the potential of using urban green spaces productively for commercial food production in the scope of social economy initiatives, is far from being fully exploited. This opens up further research questions of how the numerous bottom-up initiatives already in existence in this field can be further advanced as Social Economy options.

6.2 Policy recommendations

A SET in European cities is not feasible without the involvement of civil society via the enabling of participation and self-organisation options in a system of participatory interactive governance, which should take the following aspects into consideration:

Sustainability concerns everyone, since everyone is dependent on the Earth's environment and its natural resources. By implication this means that everyone has the right to participate as much as possible in the city's transition path. Sustainability is *no expert topic*. The governance of green spaces lends itself particularly to the involvement of all stakeholders as it deals with a tangible topic that is mostly governed at the local level and in which ideas can be tried out and implemented quite quickly and cost-efficiently compared to other resource systems. Nevertheless, in the field of green spaces, the complexity and abstractness of sustainability issues also need to be reduced. Issues need to be presented to citizens in an easily understandable language, and concrete options for civic engagement need to be pointed out and proposed.

A **joint understanding and vision** of the SET is the basis for action in the direction of sustainable city development and can only be created if all societal actors are involved in this process. The transition must be perceived as a *common collective undertaking* by all stakeholders to develop a culture of sustainability, meaning that the need for it is clear to everyone and that everyone identifies with it as a goal. Such a joint vision does not come out of the blue and cannot be presupposed from the actors. Where it is not yet in existence, it must be created. For this, spaces of participation and self-organisation must be provided since they offer joint learning opportunities and increase the possibility that striving for sustainability becomes the joint goal. In the complex and by no means conflict-free process of interactive governance, such an overarching vision is absolutely necessary to bring actors together and to reunite them in case of differing interests, reminding them of their joint common goal. Vision and objective are then operationalised in an overarching strategy and into specific goals, plans and steering tools. Again, this process does not happen top-down but is negotiated in a participatory way by all actors. Another important factor is that sustainability must have a positive *forward-looking connotation* (orientation on strength, success and potential of actors instead of focusing on weaknesses and failings). Here, local authorities can learn from civil society actors' motivation, their creative ideas and positive spirit.

Sustainability cannot be enacted from above, but can only be reached in a mutual continuous learning process in the day-to-day work of all participating stakeholders, often leading to new innovative solutions. In such a **wide societal learning process for active citizenship** (Thomas Sauer et al. 2015 chapter 11, subchapters 2,3,7) *education* and *life-long learning* is crucial in raising awareness and changing mentality, especially in creating a discourse about the relationship of economic growth and quality of life. Cities that manage to create, provide, cultivate and develop further formal and informal learning opportunities for citizens, administrative staff, policy makers and actors from the economic and the science sector, can be described as 'learning cities'. Such opportunities include options for hands-on-learning in concrete situations with a visible outcome *to improve citizens' agency* for the transition. Sustainability must become a compulsory integrative part of the kindergarten / school / university and professional training *curricula*. There must be room and support for innovative emerging solutions being *tested* locally with all stakeholders participating at a small scale *before* being *scaled up*, if successful. The one-size-fits-all solution does not exist, but a plurality of instruments is used which is tested incrementally. *Networking*, for example via participating in European Union's projects, promotes the learning process across cities, groups and individuals and allows for trans-regional learning processes.

Solutions must be embedded in a **long-term perspective**. Rules (as expressed in the legal framework from the local to EU level) need to be more modelled around *long-term sustainability outcomes* instead of following the short-term logic of mere economic growth, for example by setting corresponding financial and fiscal incentives. Instead of following a sector-specific logic and a short-term perspective, public funding must provide long-term support for integrative and holistic local development in order to achieve a *long-term planning security* of support programmes. Political decisions on sustainability must be made *less dependent on election periods and economic actors*. These constraints currently still make political decision-makers avoid socio-ecological priorities (Sauer et al. 2015 forthcoming, chapter 11, subchapter 7).

Despite the fact of living in a globalised world, sustainability issues, especially in green spaces' governance, have a **local focus** due to the local nature of the resource system and its governance. To local issues local solutions must and can be found, counting on the innovative force of civil society and economic actors and giving space to ideas. Policy measures have to be *tailor-made* to local conditions, since start-up and framework conditions greatly vary across European regions. *Local autonomy* in a decentralised system is generally more apt to support the SET than little (or no) autonomy granted by centralised systems. This is because local autonomy allows the decision making for public policies to be undertaken by those authorities that are closest to the citizens (Council of Europe 1985, article 4.3). Politically granted local autonomy has to run parallel to *financial autonomy*. This means that the principle of connexity needs to be respected. A high level of local autonomy could be misused for the self-interests of local politicians and administrative authorities unless there is a strong *civil society control* in the form of high level citizen participation, as well as a *clear enforcing legal framework* in place.

Due to the complexity and interrelatedness of sustainability issues, a local approach needs to be embedded in a system of **polycentric governance**, and *coherence* between local, regional, national and EU policies must be created. The local level has to "enable[…] widespread, synergetic, and participatory solutions and can be a *laboratory for politics of possibilities from below*. Indeed, these bottom-up policies and top-down structures have to be interlinked as enabling and supporting conditions" (Sauer et al. 2015 forthcoming, chapter 11, subchapter 4). Various forms of *citizen* **participation**, *civic associations* and *self-organisation* are manifestations of social innovation. By pursuing social, ecological and economic objectives, they can contribute to the SET. Therefore, favourable political and administrative framework conditions have to be created. Local public authorities must allow for, give room to and encourage civil society action to unfold (e. g. by providing meeting space). The concrete possibility for citizens to take over responsibility for the common good (e. g. in the planning and management of green spaces) must be offered. This is in line with Colding's and Barthel's (2013, 163) postulate that "policy makers and planners should stimulate the self-emergence of different types of UGCs, and support their evolvement in urban areas through creating institutional space". Defining aims and taking decisions must be a *transparent* process from the beginning of the policy cycle (Sauer et al. 2015 forthcoming, chapter 11, subchapter 4). Citizen participation tools control whether this is the case. In general, **participatory urban development** must become standard[48].

The aforementioned learning process is the prerequisite for **social innovation** to evolve. Since social innovation is *not bound to a specific sector* and can equally emerge in civil society, the state or the market sector, cross-sector collaboration is essential. A high degree of local actors' **collaboration** creates an atmosphere of *mutual trust* and is beneficial to transition. Instead of considering socially innovative civil society actors that challenge routines of politics and administration by following their own rationality as a threat or a disturbing factor, politics and administration should recognize their potential to contribute to the joint goal of sustainability. Citizen participation is an indispensable complement to top-down policy making. Policy making must be monitored and evaluated by citizens. With such a combination of a top-down organisation plan for sustainability with an interactive bottom-up citizen-led control system, local authorities can best take citizens' needs into account. Arenas for all local actors to meet need to be opened up and must be permanent and anchored institutionally in order to allow for *regular exchange of information* and to provide spaces for conflict management. Here, public authorities' *coordination* role is demanded. Thought out, real citizen participation means to *collaborate on an equal footing.* To engage with a more democratic way of city governance is worthwhile since cities that manage to include a wide range of stakeholders in local governance seem to be more advanced in the process of transition. Collaboration with science should also be sought. Scientific and non-scientific actors have to collaborate on an equal footing to solve local problems, highlighting the importance of *cooperative knowledge production with local people* (Sauer et al. 2015 forthcoming, chapter 11, subchapter 8).

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[48] One of the most famous and successful examples of citizens' co-decision making to implement urban ecological sustainability projects can be found in the pioneering Brasilian city of Curitiba (Harvey 2012, 111).

"Facilitating intermediary actors are necessary to initiate processes of development and change" (Sauer et al. 2015 forthcoming, chapter 11, subchapter 7, bold added). The transition is often driven by committed *change agents* from all sectors who have first adopted changing and newly evolving norms and significantly pushed for their manifestation in rules. This is the case with they highly motivated innovative experts working as civil servants in local government, who are little bound by bureaucracy and dispose of a sufficient budget. Successful norm-adoption has led to higher levels of trust and cooperation between stakeholders and to vivid institutionalised interaction processes. This also helps to break the *sector specific rationality* that many public administrations still follow, which has to be replaced by following *cross-sector inter- and transdisciplinary strategies* to overcome an existing implementation gap.

Urban green spaces are essential for a city's sustainability in ecological, social and economic terms. Nonetheless, they are increasingly threatened by urban development pressure. Therefore, a *clear restrictive* **legal framework** to protect their preservation and possible extension is needed, as well as a legal framework facilitating citizen participation and self-organisation. "Laws, institutions and politics […] [must] facilitate commoning" (Helfrich and Bollier 2014, 22, author's translation), and urban green spaces governance has to turn the idea of urban green commons into one of its central components.

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Project Information

Welfare, Wealth and Work for Europe

A European research consortium is working on the analytical foundations for a socio-ecological transition

Abstract

Europe needs change. The financial crisis has exposed long-neglected deficiencies in the present growth path, most visibly in the areas of unemployment and public debt. At the same time, Europe has to cope with new challenges, ranging from globalisation and demographic shifts to new technologies and ecological challenges. Under the title of Welfare, Wealth and Work for Europe – WWWforEurope – a European research consortium is laying the analytical foundation for a new development strategy that will enable a socio-ecological transition to high levels of employment, social inclusion, gender equity and environmental sustainability. The four-year research project within the 7th Framework Programme funded by the European Commission was launched in April 2012. The consortium brings together researchers from 34 scientific institutions in 12 European countries and is coordinated by the Austrian Institute of Economic Research (WIFO). The project coordinator is Karl Aiginger, director of WIFO.

For details on WWWforEurope see: www.foreurope.eu

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