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Article

Transition Thinking Incorporated: Towards a New Discussion Framework on Sustainable Urban Projects

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Abstract: Today, cities worldwide are engaged in urban projects and activities in a concerted drive towards sustainable development. However, the concept of “sustainable urban projects” is inherently normative, subjective and ambiguous. Furthermore, the popularity of sustainable urban initiatives does not guarantee that increased pressure on dominant unsustainable urban systems will occur. In this article, we argue that strong urban debates on these initiatives and on urban sustainability are required to facilitate and stimulate urban systems towards a more socially just and environmentally sustainable future. When we say “urban debates” we mean substantive talks and detailed discussions about the type of cities we want to live in and about a shared understanding of sustainable urban projects and how they affect urban systems. We aim to contribute to that objective by developing a discussion framework on sustainable urban projects that frames sustainable development as a challenge that concentrates on both ecological and social concerns and that avoids a sole reliance on technology fixes. But above all, we also incorporate insights and findings from transition thinking to focus on radical changes or transformations of urban systems and to acknowledge the importance of so-called “niches”. In this article we describe the fundamentals, the surplus value and the utility of the framework. The article contains empirical material from a pilot-study in Ghent, Belgium.

Keywords: discussion framework; sustainable urban projects; transition of complex urban systems; sustainability discourses; urban debate

1. Introduction

In 1992, the Rio Earth Summit focused attention worldwide on the importance of cities in relation to sustainable development. Today, urban projects across the globe are being utilized as a means of making cities more sustainable [1–3]. The increasing number of sustainable urban initiatives seems to indicate a positive future for our cities. More attention than ever is being paid to sustainable cities, the challenges are becoming more clearly defined and there is no shortage of fascinating initiatives or experiments. But at the same time, dominant practices, cultures and structures are proving stubbornly persistent, and this hinders progress towards a socially just and environmentally sustainable future. The result is the acceleration of greenhouse gas emissions [4], the exceeding of or pressure on planetary boundaries [5], a continuing increase in water consumption (FAO) and inequality in cities [6,7]. The impact of so-called “lock-ins” or “path dependency” hence ensures that unsustainable urban systems can remain on a self-perpetuating path. This not only has a paralyzing effect, but also hinders us in our efforts to undertake a proper appraisal of the impact of numerous projects and initiatives, which do specifically seek to promote various aspects of sustainability. As Hodson and Marvin argue, it requires addressing the gap between “*the initial vision of urban transition and its achievement over time, in respect of aims, objectives, timings, material and social change*” [8].

In order nonetheless to obtain a better understanding in this regard, we advocate in this article—utilizing the growing number of sustainable urban initiatives—to conduct, widen as well as tighten the debate on urban sustainability by making it a subject of discussion. While system changes are usually accompanied by uncertain and complex processes [9], the ambitions and impact of urban projects can nevertheless provide us with knowledge and insight regarding possible sustainability transitions of urban systems. Those urban systems are socio-technical or societal systems, such as the agrofood system, mobility system or energy system, in urban settings. It is instructive to see how various projects attempt to confront and tackle such unsustainable systems, or even try gradually to transform them [10]. For them to realize their inspirational potential, there is an urgent need for strong urban debates and learning pathways about sustainable urban development. By “strong urban debates”, we mean substantive talks and detailed discussions about the type of cities we want to live in and about a shared understanding of sustainable urban projects and how they affect urban systems. However, these discussions will not come about by themselves. In this article we therefore intend to focus on the development of a discussion framework which stimulates this confrontation and which calls on us to question the significance of specific and miscellaneous sustainable urban projects and the role they (can) play in the transformation of urban systems. As such, the main research questions addressed in this article relate to the search for a suitable and useful discussion framework. What are the common fundamentals and how can we incorporate insights from transition thinking? What can we learn from a pilot study about the practical use of this new framework? How can it improve the debates on sustainable urban systems?

Indeed, we argue that building such a new discussion framework on sustainable urban projects benefits from insights and findings from transition thinking. Firstly, the plea for radical transformations of (urban) systems speaks up for a strong interpretation of the contested concept “sustainable development”. Although transition theories argue for goal oriented modulation [11], they also underline that a sustainable future requires a fundamental change of existing structures, cultures and practices, at least in the long term [12]. Secondly, strategic niche management [13] emphasized the importance of

mature “niches” for sustainability transitions, of course, when linked up to ongoing processes at regime and landscape levels [14]. Niches can be seen as protected spaces that allow experimentation with the co-evolution of technology, user practices and regulatory structures [13]. Building further on other perspectives and frameworks on (urban) sustainability, we have incorporated both insights in our attempt to develop our discussion framework and to facilitate urban debates on sustainable urban projects in order to stimulate urban transitions.

The article is constructed in three sections. The first section theoretically outlines the key concepts of sustainable urban projects and the role of transition thinking in understanding radical urban transformations and describes the purpose structure and different elements of the discussion framework. The second section shows the results of our empirical research in the Belgian city of Ghent. Firstly, we tried to map the diversity of sustainable urban projects in one specific city, in particular to gain an interesting view of a broader range of emerging “sustainability” niches. Secondly, we tested the usefulness in practice of our discussion framework by organizing a focus group. During the assessment of several concrete and diverse sustainable urban projects of Ghent the strengths and limits of the framework emerged. The third and last section sets out the key conclusions of the article and reflects on the results of the developed framework.

2. Sustainable Urban Projects: From Contested Concepts to Discussed Practices

2.1. Interpretations of Urban Sustainability

Urban development and sustainable development appear, discursively at least, to be trending towards greater convergence. Nevertheless, the objective that is put forward or the underlying motivation whenever these two concepts interact in practice often remains restricted to improving the quality of life of the inhabitants, on the one hand, and/or ensuring that the necessary developments in that regard have minimum impact on the environment and the climate, on the other. In this way, sustainable urban development is viewed under the different headings “urban ecology” [15,16], “urban ecosystem” [17,18] “eco-city” [19], “green urbanism” [20–22] and “ecological urbanism” [23] as a development that leads to progress, while remaining within planetary boundaries. However, attention needs to be given to the fact that these approaches and frameworks often tie into the currently dominant discourse in respect of “ecological modernization” [24] as well as a sustainability perspective that is based on a pure ecological view of the world. Following the literature mentioned above, our discussion framework for urban sustainability takes into account climatic conditions, renewable energy, circular-closed-loop eco systems, urban biodiversity, sustainable transport, local and sustainable materials, local food and short supply chains, quality of life, healthy communities, green open spaces and mixed-use programs.

The sustainability agenda of cities is driven far less by social concerns than by topics relating to the environment and the climate. Nevertheless, increasing social inequality worldwide is an issue that is as urgent as it is difficult to address [6,25]. The pursuit of socially sustainable cities with openness to diversity, equal rights and opportunities, attention to welfare, social prosperity and with space for cultural development is at least as crucial as a commitment to pursuing ecologically sustainable cities. From a social sustainability perspective, such as “urban social sustainability” [26], “social innovation in urban development” [27,28], “urban social justice” [29,30] “cities for people” [31], “child-friendly cities” [32,33]

and “right to the city” [34] paramount importance is given to a development that takes into account the scale or needs and requirements of people, which benefits everyone and which promotes the pursuit of emancipatory and structural solutions. Projects that are implemented on the basis of these approaches show that concepts such as social cohesion, integration, social and cultural diversity, social and cultural capital, social justice, participation, cooperation, community empowerment, emancipation and safety help to operationalize “social sustainability”. These common social concerns served as the basis for the social elements of our discussion framework (cf. Table 1).

Naturally, ecological and social approaches each have separate emphases and objectives, but there is also a great deal of overlap and they are significantly closely related to one another. For example, it is often people living in poor neighborhoods who are confronted with pollution, waste and lack of access to natural resources [35]. While it appears at first sight that we are dealing with two separate agendas, within sustainable urban systems care for the environment and social justice cannot be seen in isolation one from the other. Following Haughton who sees environment protection and social justice as the core values of sustainable urban development [36], it is essential to create synergies between both, in terms of identifying the issues as well as searching for possible solutions. In terms of politics, policy and academic analysis, it is necessary to place the discourse of environmental justice firmly within the framework of sustainability [37]. Matters such as an equitable sharing of access to resources or the shifting of environmental problems onto weak groups indicate that the success of ecological ambitions depends on harmonization in terms of social objectives, and *vice versa*.

We additionally argue that the concept of sustainability is not only ideally suited to initiatives or projects which link environmental as well as social challenges, but also to initiatives that dare to think beyond the concept of a “technological fix” or “trickle down theories”. Where sustainable (urban) development is addressed, all too often this is weak or unchallenging. This is also accepted in the oft quoted Brundtland report [38], not least because economic growth is herein still proposed as the solution. In the debate on “strong and weak sustainability” [39–41] a so-called “weak sustainability approach” is pegged in ideal-typical fashion, on the one hand, to a strong belief in technological solutions for (environmental) problems and for the shortage of raw materials, and on the other, to a commitment to some form of “trickle down” thinking which states that economic benefits provided to wealthy actors will inevitably benefit poorer members of society by improving the economy as a whole. Significant adjustments or transitions of lifestyles or political-economic structures, for example, are then not really on the agenda. Such thinking is often reflected in the debate on “green economy” and “ecological modernization” [24].

Table 1. Discussion framework on sustainable urban projects.

	Ecological Footprint	Closed Loop	Nature and Culture	Quality of Life	Health
Environment and Liveability	The project implements actions to minimize the environmental footprint and hence not increase the burden on the environment, or keep any such increase to a minimum. Intelligent use is made of scarce resources, such as land, fossil fuels, clean air, fertile soils and materials.	The project ensures that outgoing flows, such as water, waste and materials, are reduced to a minimum. There is an emphasis on short chains and local knowledge of materials and technologies.	The project goes beyond the traditional, and still dominant, approach, which is based on the polarity between nature and culture. There is special attention for biodiversity conservation, adding or including natural elements and the restoration of the natural environment.	The project aims to promote attractive, legible, comfortable and safe urban environments in which adequate space is provided for opportunities to interact. There is attention for a diverse mix of facilities and amenities, existing local associations or organizations and the cultural identity of the neighborhood, district or city.	The project makes a healthy lifestyle possible and endeavors also to stimulate this. There is attention for the mental as well as the physical health of the urban population. This can be achieved by focusing on sport and exercise, healthy eating habits, hygiene, recreation, vitality and well-being.

Table 1. Cont.

	Social Justice	Emancipation	Community	Co-Production	Participation
Society and Prosperity	<p>The project benefits everyone. Actions are taken to combat exclusive appropriation, segregation and social displacement. One looks beyond the confines of one's own project and takes the impact of the project on its environment also into account.</p>	<p>The project contributes to the social emancipation of individuals and groups from vulnerable environments. There is a commitment to working towards community development, social cohesion, child-orientation, sustainable development and distribution of prosperity, economic involvement and job creation.</p>	<p>The project transcends the individual interests of the actors concerned and prioritizes the collective interest. It takes as its basis a thorough analysis of the needs and requirements of the community and takes these into account in as many respects as possible. The social and cultural capital from the neighborhood, district or city is applied and utilized.</p>	<p>The project gains form and substance through the actions of and for everyone, and through dialogue and cooperation between different stakeholders: city, local residents, civil society organizations, users, other public authorities, entrepreneurs and children. There is a focus on realizing added value for the benefit of all partners. The responsibilities, benefits and burdens are shared.</p>	<p>The project allows city residents, regardless of their background, income, gender and orientation, to participate in political and administrative decision-making processes of the urban authorities or allows them to undertake activities themselves either alone or together with others (without relying on urban or municipal authorities).</p>
	Practices	Cultures	Structures	Interaction	Entrepreneurship
Transformation	<p>The project brings about behavioral changes in the neighborhood, the district or the city with regard to the use of functions, services, spaces and infrastructures and ensures changing needs in that regard.</p>	<p>The project ensures a changed experience for the users and residents of the neighborhood, district or city and generates over time a structural change of the broader social and cultural significance.</p>	<p>The project intervenes and impacts on institutional, physical-spatial or social structures or specifically seeks to identify possibilities for changing these structures. The project has an impact on the broader environment or the city as a whole.</p>	<p>The project directly engages in meaningful interaction with its environment. It not only has an impact on the environment, but is also influenced by it. This "cross-contamination" or these "effects" may be substantive, practical as well as process-oriented.</p>	<p>The project displays healthy "entrepreneurship" and is capable of surviving in relative autonomy and possibly providing reserves for other projects. It has access to alliances, which can prove significant in case of need.</p>

Rather, we advocate “strong sustainability”, however, and therefore question the existing political and economic power structures and/or customary relationship between humans and nature. According to proponents of “strong sustainability”, major social and environmental problems are rooted in these dominant structures and relationships. Supporters with such a perspective recognize that some natural resources, such as the ozone layer, photosynthesis and the water cycle, cannot easily be assumed, replaced or imitated by humans [42]. By arguing that while natural and manufactured capital may be complementary, they are not simply interchangeable, this approach clearly distinguishes itself from “weak sustainability” [40]. The interests of future generations cannot be safeguarded by merely taking into account natural and manufactured capital in its entirety or its growth because some natural materials cannot be replaced by manufactured goods and services. An economic concept that more or less aligns with this is reflected in the concept of the “ecological economy”. This alternative to dominant neoclassical economic thinking applies a logic that takes as its basis a “constructed” ecological scale which subsequently, via social debate, determines the contours of a fair sharing-out and which finally leaves it to the market to determine whether to realize an efficient allocation [43].

The division between weak sustainability, on the one hand, and strong sustainability, on the other, is a simplification and presents two extremes. In practice, a continuum is more evident. Nevertheless, it is important to make the distinction, not least because it entails entirely different ways of viewing reality, which in turn results in other priorities being established and other choices being made. To incorporate in our discussion framework the call for fundamental changes in urban systems, we therefore appeal to “transition studies” or “sustainability transition research”.

2.2. Broadening from Basis of Transition Thinking: Socio-Technical Systems as Focus

Hopwood *et al.* [44] have mapped a broad range of specific conceptual frameworks in relation to sustainable development by using only an ecological and a social dimension. Based on Rees they came up with three change strategies [45]: “status quo”, “reform” and “transformation”. Translating this to the discussion on sustainable urban projects, we can make an analytical distinction between three different types of projects. Firstly, those projects that recognize an urgent need for change, but which one is convinced are only possible within the existing social structures (status quo). Secondly, those who believe that sustainability can be achieved within the existing economic and social structures, but which require radical political change and an alternative lifestyle (reform). Thirdly, those who attribute the increasing social and ecological problems to certain fundamental characteristics of today’s society and who are convinced that the issue of sustainability calls for significant social changes (transformation).

The fundamental restructuring that is part and parcel of the latter approach is referred to in the concept of transition thinking by the term “transition” [46], which also relates to “system innovation” [47]. Transition thinking provides several tools and guides that can help in making a theoretical distinction, but above all in obtaining greater insight into the degree of change entailed by the projects or initiatives in actual practice. Two matters are important in this evaluation. Firstly, that the problems (and the solutions) are rather located at system level and not merely at the individual, process or product level. This implies an overarching level where interactions between individuals, enterprises and organizations take place. Innovations which radically change those interactions are called system innovations [48]. Secondly, that fundamental reforms of existing urban systems are not only directed towards hard,

infrastructural renewal, such as technological renewal, but also towards economic, socio-cultural or institutional and political and administrative renewal. A transition takes place, in other words, within the structure (the institutional, economic and physical structure), culture (dominant concepts, values and paradigms) and methods or practices (routines, rules and behavior) of the social system [49].

The discussion framework therefore includes, in addition to the elements relating to the socio-environmental nature of urban projects, also, and consequently, discussion elements focusing specifically on the transformative nature. While we can establish a continuing dynamic of challenge and adjustment as well as a co-evolution of thinking, acting and structures, radical changes do not simply occur of their own accord. Profound change occurs in many areas and domains simultaneously (in technology, legislation, standards and values, social conventions). This renders it difficult to capture and comprehend the dynamism of profound changes. Miscellaneous factors play a role in enabling us to categorize and understand the development. The multi-level perspective (MLP) [9,49–51] enables the interactions at different levels to be mapped in a descriptive manner. The relationship between the levels is important for explaining the dynamism of transitions. The MLP demonstrates how different levels combine and interact to enable a transition. It describes three different “levels” at which complex social systems can be understood. The levels are referred to as “niches” (micro-level), “regime” (meso-level) and “landscape” (macro-level). The various levels are functional in nature rather than spatial. According to the model, transitions are to be understood as a complex interaction between the niche, regime and landscape factors. A regime can become disrupted under the pressure of landscape developments, internal regime problems and niches that provide alternatives. Particularly when different types of pressure occur in conjunction, a window of opportunity arises and it becomes easier for niches to break through and to bring about radical change to the regime. New practices and technologies then become established and new actors become dominant. For this reason, the importance of (mature) niches cannot be ignored.

2.3. Beyond the Common Use of the Concept “Urban Project”

In this article we argue that a broadening of the classical interpretation of the term urban project is an important condition for the full recognition and linking of several scale levels. In particular, we state that urban projects or initiatives that create pressure on the regime can also be considered as niches.

The “project mode” has been very popular within urban development throughout Europe since the late 1980s [52,53]. This concerns physical interventions in a housing block or urban district that are realized under the direction of the (local) public authorities and in cooperation with private partners. These urban projects or urban regeneration/renewal projects are assumed to have a leverage effect on the entire urban environment. They are utilized as a powerful tool for driving the revival of cities. Flanders (Belgium’s northern region) also has seen the emergence of such urban projects since the late 1990s. They now appear to have become the policy instrument of choice for transforming urban centers and urban districts throughout Flanders [54]. The focus of attention of such projects is on making these places (physically) more attractive to wealthy citizens, tourists, innovative players and companies [55]. Parallel to the rise of the project mode, during the 1980s we see a transition from Keynesian urban management to an urban “entrepreneurialism” [56]. Public-private partnerships have the effect of

engendering a competition between cities. This frequently results in “flagship projects” determined by a neoliberal agenda rather than the classical alignment between supply and demand.

Fortunately, urban projects are also increasingly being seized on as a means of searching for solutions to complex sustainability challenges, such as global warming, wastage of natural resources, social and cultural inequalities, poverty and exclusion, *etc.* These urban projects consequently are keen to adopt the label “sustainable” [57]. However, by no means do all sustainable urban initiatives fall within this classical interpretation of the concept “urban project”. In practice, many exciting urban initiatives find themselves drifting away from this interpretation (cf. Part 3.1). Alongside the (urban) public authorities, citizens also are taking on the role of innovator, initiator or entrepreneur to address in countless ways the many challenges being presented in the cities. It is not by chance that the focus of the most recent conference of Eurocities, the network of major European cities, shifted away from the “smart city”, where new technologies are applied to make the city more efficient, safer and more pleasant, to the “smart citizen” who is indispensable in the search for innovative solutions to deal with unsustainable urban systems [58]. Related to pressure of landscape developments and internal regime problems (cf. MLP above), experiments and actions initiated by different actors, such as citizens, play a crucial role within urban transitions. Schot and Geels [13] distinguish various types of co-evolution, but they clearly argue that niches are to be perceived as crucial for bringing about regime shifts.

The fact that citizens’ initiatives, social movements, knowledge institutes and companies are increasingly taking the lead within urban initiatives constitutes an ever-growing challenge for politics and its administration. Bulkeley and Castan-Broto [59] argue that urban sustainability experiments are able to create new forms of urban political spaces within the city, as public and private authority blur. In his search for a new way in which public administration can shape its relationship with citizens, Hajer [60] proposes the concept of “the energetic society”. Instead of a national government and public authorities who keep control firmly in their hands, he believes it is necessary to respond more and to take more creative advantage of the existing social energy within society. The motivation for this is two-fold. On the one hand, sustainability challenges are too great for public authorities alone and, on the other, the number of engaged citizens, many of whom are highly educated, and businesses who are themselves taking action is increasing. Governments and public authorities, but also planners and project developers, too often still see this as an obstacle, as something that interferes with their own plans or ideas. In an “energetic society”, by contrast, citizens are encouraged by the public authorities to search for all manner of creative solutions themselves. How these new relationships between citizens, businesses, and public authorities will look in the future, and how the different concerns to emerge will be dealt with in a careful and proper manner (cf. the transition from the welfare state to the participation society) is unclear. It surely cannot be the intention that public authorities, under pressure of expenditure cuts, shift numerous (generally social) responsibilities onto citizens [61]. That serves to aggravate inequality. But citizens’ participation also offers opportunities and prospects. Ostrom [62] believes firmly in “polycentric governance”, with governance being undertaken not from a specific center but rather from multiple centers that are not linked in any hierarchical sense but rather in a structure of mediation. This encourages the actors involved to experiment with different cooperation strategies and to learn collectively. These actors can be families, individuals and other small groups of people as well as businesses, local, regional and national authorities. Urban projects can be an ideal testing ground for this, since the sharing and/or transferring of responsibilities and the actual appropriation of these

responsibilities, whether or not for a specific period, is something that occurs tangibly and in various guises under this form. In the interest of stimulating the debate on the future of cities, we therefore consider it both advisable and useful to broaden the profile or the contours of urban projects. We believe that the manner in which the term is customarily applied and interpreted at present entails essential restrictions because it fails also to take into account all the projects that address the transition towards sustainable urban systems.

In the interest of a broader interpretation and structuring of urban projects, we advocate not placing the initiative merely in the hands of the government and public authorities. The pioneering or directive role can also be assumed by other actors. Furthermore, we do not interpret the urban space in merely physical terms. This means in concrete terms that a physical component is not (always) a priority for projects that seek to address one or more urban challenges. This may be absent, or it may be of lesser importance. We furthermore have due regard for the different space levels in cities where sustainability initiatives germinate, because niche, regime and landscape levels are produced and reproduced by relationships between actors acting across different levels of spatial scales [63]. In this way projects also emerge which intervene at a different scale of the city than a housing block or urban district. This ensures visibility for projects, from those that intervene at the smallest level of the city to projects that view the city in its entirety as their working field.

2.4. Discussion Framework

The first versions of our discussion framework resulted from the screening of relevant literature on (urban) sustainability (cf. Part 2.1) and transition theories (cf. Part 2.2), on the one hand, and group discussions within our research center, on the other. The broad outlines of the elements on “environment and liveability”, on “society and prosperity” and on “transformation” soon took shape, but we refined more or less the 15 elements during our empirical research in the city of Ghent (see below). We explain the main discussion in part 3.2. The final version of our discussion framework is shown in Table 1.

3. Empirical Research in Ghent

3.1. Search for Sustainable Forms of Urban Development

As it is unclear what precisely is going on at the moment in our (Flemish) cities in terms of sustainability initiatives, we endeavored during 2013 to obtain greater insight into the situation. How do policymakers as well as citizens attempt to initiate more sustainable practices? What is being done today to construct a more just society, to reduce the environmental footprint and/or to improve the quality of life of city residents? This is all still a blind spot for policymakers as well as academic researchers. In order to obtain an instructive view on the great diversity of initiatives that can be grouped under the heading of “sustainable urban project”, we organized a mapping exercise in one Belgian city. As we set out above, not only was the existing or most common interpretation of the term “urban project” abandoned, but we also left open as far as possible the interpretation of “sustainability”. We selected the city of Ghent to carry out this exercise. This city, with nearly 250,000 inhabitants, is one of the two major cities in Flanders (Belgium) and is known for having a rather progressive image. The focus was

not so much on obtaining a comprehensive inventory as on gaining insight into the broad range of possible perspectives and viewpoints.

Individual interviews were held with Ghent local civil servants, academics, representatives of NGOs, civil society organizations, and entrepreneurs' associations, as well as committed citizens with the aim of identifying Ghent-based initiatives that contribute to a socially and ecologically sustainable future. In order to provide for consideration of multiple approaches, a heterogeneous group of twelve respondents with expertise on environment and nature, energy, living, work, welfare, mobility and economy was composed. This group was partly determined in consultation with Ghent City Council and partly formed by the snowball method during the interview phase. During the interviews we recorded which Ghent-based projects the experts believed could be labeled sustainable, regardless of whether or not they label themselves as such; which are capable directly or indirectly of influencing urban policy in terms of sustainability; and which play an important role in the transition towards more sustainable urban systems.

In addition to the data that were collected through the interviews, the material obtained from an exercise carried out by Ghent City Council to draw up an inventory of socially innovative projects in Ghent was also recorded. This list was drawn up following the annual conference of "Eurocities", the network of major European cities, which was held in Ghent at the end of 2013 under the theme of "Smart Citizens". Finally, a press release was drafted and distributed with the aim of bringing our own exercise to the attention of the general public. In this press release, we called on citizens to bring to our attention projects that seek to ensure a more sustainable future for the city. All these projects have been collected and form the heart of a website (www.gentintransitie.com). The full list of projects is substantial: we identified 88 projects in total during a three-month period. What is immediately noticeable in relation to them is the different approaches that are possible for defining sustainable urban projects.

This inventory exercise taught us several things about applying an open interpretation of sustainable development and broadening the concept of what constitutes an urban project. To begin with, we can say that in spite of the wide range of initiatives that have emerged, it would be incorrect to suggest we have reached a true saturation point. It quickly became apparent that the number of projects that (aim to) contribute in a social and/or ecological manner to the transition towards more sustainable urban systems is quite large. That we are unable to present an exhaustive list of projects is undoubtedly related to our broadening or open interpretation of both concepts, but is certainly also linked to the dynamic nature of a city. As projects disappear or die out on a daily basis, they are continually being replaced by new projects. Furthermore, some projects disappear before reaching maturity, while other projects survive, but remain below the radar for a long time before re-emerging after a considerable period.

Depending on the expertise of the person, service or organization, new projects were regularly added. The list is consequently partly dependent on the respondents concerned. While every attempt has been made to interview a diverse range of people, and additional use has been made of the inventory exercise conducted by Ghent City Council as well as individual submissions, it is certainly true that some viewpoints are still missing within the broad range of initiatives. For example, from people who view the city more from a socio-cultural perspective, who work in the health and care sector or who attach a great deal of importance to education. The absence of these perspectives, and consequently also of the projects associated with them, is most probably also linked to the dominant discourse on sustainability. Some approaches are not entirely absent, but are clearly under-represented. This is noticeable, for

example, in the limited number of projects that endeavor to make urban systems more sustainable via digital and/or technological innovation. Initiatives undertaken by large companies and industries also are generally absent.

In spite of the fact that, on the one hand, we have a great diversity of projects and themes and, on the other, we cannot access all the projects and possible viewpoints, we can nonetheless establish several overarching trends. Highlights in this regard are environmental responsibility, organic food or farming, space for meeting one another and a commitment to shared use and joint management. Several of these expressions come to the fore in many projects. They are not so easily categorized, or “pigeon-holed”. In Table 2, we summarize the issues that are most frequently addressed and we describe briefly how these issues are expressed in practice.

Table 2. Summary of trends, practices and solutions for urban sustainability.

<p>Ecological Footprint</p> <p>Striving to realize a carbon-neutral city, introduction of energy-efficient measures, attention for renewable energy, recycling technologies and reducing consumption and CO₂ emissions, using short-chain products and promoting bicycle culture.</p> <p><i>e.g., swapping services such as “swishing” or waste-avoidance mechanisms such as “freecycle”; community-based carbon-reduction groups; low-impact housing groups.</i></p>
<p>Organic food</p> <p>By growing and/or offering food oneself, in the communication with suppliers and by examining its importance and emphasizing it in institutions, organizations and companies.</p> <p><i>e.g., local food-growing projects; urban farms; beekeeping in urban areas; local food teams.</i></p>
<p>Shared use/Joint management</p> <p>By gardening together, by having access to a communal garden or outdoor space, by lowering the costs of car usage, by bringing employees closer together and by sharing responsibilities.</p> <p><i>e.g., urban allotment gardens; apps which enable you to borrow things you need from people in your neighborhood such as “Peerby”; car-sharing organizations.</i></p>
<p>Meeting places</p> <p>Public areas that are refurbished in a new and attractive way, places where communal activities are organized, places where people with shared interests can meet and spaces where knowledge and know-how can be transferred.</p> <p><i>e.g., open DIY workshops such as “bike kitchens”; territorial organization of contemporary urban spaces; parking spaces that are turned into public parks.</i></p>
<p>Child-friendly environments</p> <p>Space in the city for young families with children is translated into district and neighborhood parks, low-traffic or traffic-free streets, bridges for pedestrians and cyclists, accessible recreation areas, safe cycle axial routes, green space corridors and affordable housing initiatives.</p> <p><i>e.g., bike-sharing programs to promote cycling in the city to children; projects for children to develop a sense of co-operation and civic responsibility; design competitions on the theme of play infrastructure in the city.</i></p>
<p>Community work</p> <p>Organizing communal activities, setting up projects together, taking care of the neighborhood, encouraging solidarity between residents and getting to know each other better in a positive way.</p> <p><i>e.g., volunteers who teach underprivileged children; use of local currencies such as LETS; social activities organized by neighborhood associations.</i></p>

Table 2. Cont.

<p>Participation</p> <p>Cooperating and considering and sharing ideas about new facilities and amenities, possibility to contribute to temporary urban spaces, use of volunteers, allowing as many people as possible to participate in society and taking action together.</p> <p><i>e.g., participation methodologies such as “Serious Urban Games”; co-creation activities with creativity and digital technology as driving forces for social change in an urban context; formation of a climate alliance.</i></p>
<p>Joining forces</p> <p>By searching for common needs and interests, by sharing in the proceeds and revenues and (re)investing them together, by jointly tackling problems such as poverty and unemployment and by planning and providing communal areas and facilities/amenities.</p> <p><i>e.g., development of cohousing projects; collaborative finance or crowdfunding; (digital) fabrication laboratories (Fab Lab’s).</i></p>
<p>Sustainable business practices</p> <p>Attention for alternative forms of cooperation, allowing underprivileged or disadvantaged people the opportunity also to participate, small-scale artisanal production of a high quality, use of local and regional products and innovation in the interest of reducing the environmental footprint.</p> <p><i>e.g., community supported agriculture movements; wind energy projects through community ownership or energy cooperatives; innovative social enterprises; reuse, up cycle, and repurposed projects.</i></p>
<p>Training and education</p> <p>Are used as important instruments for increasing awareness among people and both sharing and transferring information.</p> <p><i>e.g., transition groups, providers of environmental advice and support; “green office” program of universities.</i></p>

3.2. Elaborating the Outlines of the Discussion Framework

After our study of the diverse range of sustainable types of urban development in Ghent, an elaborated draft version of our framework was discussed extensively in a focus group comprising ten Ghent experts from miscellaneous fields (politicians, civil servants, academics, representatives of civil society organizations and businesses). Firstly, time was taken to discuss the philosophy underlying the framework and to examine each element of the framework. The focus group discussed which aspects are correctly and which are wrongly included in the framework, which dimensions may possibly be absent for a full acknowledgement of the complexity of sustainability, the accuracy of the labeling of the dimensions, the correct formulation of the accompanying description, *etc.* Secondly, the experts used the (adapted) framework to discuss and assess together a selection of a few concrete urban projects we mapped in Ghent (cf. Part 3.1). We allocated one hour for each case. By doing so, they also reflected on the substantive function of the framework, its applicability to the variety of types of project and the best way of applying the framework.

Having described the subject and structure of the discussion framework in the previous parts, we will now examine the framework’s added value and usefulness concerning the process (cf. Sections 3.2.1 and 3.2.2) and the content of the framework (cf. Section 3.2.3.). This is done by discussing below the focus

group's main findings and reflecting on the assessments that were made. During the focus group meeting it quickly became apparent that the broad outlines of the instrument could remain unchanged, despite the formulation of several highly relevant suggestions and criticisms. We believe at least the broad outlines of our developed discussion framework are employable in other (Northern) European cities such as Ghent, but of course it is possible that, depending on the local context, certain specifications with respect to one or more elements need to be reconsidered.

3.2.1. Goal: Learning and Inspiring

Firstly, the focus group addressed the goal of the framework. The focus group agreed with the logic that by engaging jointly in discussion, it was possible for common meanings and consensus to arise about what does and does not constitute a sustainable urban project. The focus group members believe that the framework makes it possible to learn from different interpretations and their accompanying perspectives. This led them to propose that the framework therefore be used mainly in this manner. The focus group members stressed at the same time that the tool must as far as possible avoid people having regard for achieving a particular score. With the aid of the framework, the actors involved must be able themselves to reflect on the project, to make clear choices, and to assess the possible implications of certain choices. According to the respondents, the aim is for the people using the framework above all to allow themselves to be inspired and, where possible, to enhance their understanding of themselves. The respondents indicated that the instrument serves principally to bring out and to highlight qualities and potentials. Use of the framework therefore involves making an assessment of the potentials inherent in a project or addressing the ambitions the project upholds, and not the change it brings about today. This assessment will vary according to the person making it. Formulating an unambiguous answer here will prove difficult, if not impossible. During the focus group meeting it became clear that for this reason the framework can be better utilized as a discussion framework rather than as a comparative evaluation framework as it was originally termed. The members of the focus group indicated that the original description places too much emphasis on achieving the best possible score (which is not a goal in itself) and focuses too much on where others are situated (instead of focusing on one's own ambitions and objectives). They advocated focusing on the functioning of one's own project and the discussion between the different actors involved with the project. In this way, qualities that are implicitly or explicitly present come to the fore and can then be weighed relative to other or previously upheld interests.

The members of the focus group additionally gave consideration to the question "who can use this framework?". The focus was chiefly on people initiating sustainable urban projects. During the focus group it was pointed out that it is not inevitable that city councils also will want to make use of it. The respondents consider both options possible, since the framework also permits the detection of sustainable urban projects and allows for learning to make an assessment of their potential. They indicated that it was of crucial importance in this regard that this should always happen with the assistance of the actors and stakeholders concerned. Without thorough knowledge of the project, they believe there is little point in the exercise.

During the focus group, the idea that social and environmental sustainability are inextricably linked with one another was underlined. The members of the focus group made clear that it is not so much a question of taking the 15 elements into account simultaneously, but rather that at least some elements of

the ecological, social and transformative dimensions are taken into account. According to the respondents, the framework causes the actors concerned to be confronted with issues which they would not initially think about themselves. This provides an opportunity for new viewpoints and perspectives. In addition, the respondents acknowledged that too often the impact of sustainable urban projects in the long-term or their transformative nature is overlooked. They noted that a wish or commitment to embrace a sustainable approach must also be accompanied by consideration of the way in which the project deals with this (long-term) perspective and how one also can act upon this effectively. The focus group pointed out, finally, that even while using the framework this already calls for a shift from a purely project-based way of thinking to a more system-oriented approach.

3.2.2. Conditions: Acknowledging Complexity, Subjectivity and Customization

The need to continually acknowledge the complexity that sustainability (often) entails was considered as essential by and during the focus group. Under no circumstances may the framework be used a sort of checklist on which values can be merely checked or unchecked. Anyone utilizing the framework should not expect a simple yes/no. The focus group saw no problem in the impossibility of making an “objective” assessment and also recognized the importance of using estimates. Sometimes agreement will be reached relatively quickly on this matter, and sometimes consensus will seem far away. But that is precisely what makes it instructive. While the level of ambition of some values is quite high and there is no provision for degrees or gradation, the members of the focus group see opportunities nevertheless to make provision for nuance and qualification. It is possible, for example, to make a distinction between principal ambitions, on the one hand, and secondary ambitions, on the other. The members of the focus group experienced for themselves that it becomes more difficult to make assessments and estimates depending on the type of project. In the case of projects that are more stand-alone, for example, and do not really have secondary projects that can be linked to them (often niches or physical interventions), it is easier to assign or not to assign dimensions. The challenge is greater for strategic programs, which are less concrete and fan out more.

3.2.3. Interaction, Self-Reliance and Entrepreneurship

During the focus group it became apparent that inspiration and learning from one another are important not only in general while using the framework (cf. Section 3.2.1), but also as an element of the framework to assess the projects. The members of the focus group noted that the inspirational nature of a project falls within the dimensions related to the transformative nature of projects. For this reason, we added the element “interaction”. The strength of dissemination and/or the scaling up of a project must also be taken into account since, according to the respondents, this benefits self-reliance as well as system change.

As a general rule, nothing can be done and achieved without resources. This prompted many respondents from the focus group to point out that this discussion framework must not be blind to the financial aspect. Throughout the focus group there was a growing consensus about how to include this in concrete terms in the framework. It was suggested, for example, that a link be established between this economic fact of life and the concept of self-reliance. This is understood to mean the degree of autonomization that the project guarantees in due course or the ability to remain operating independently.

While it essentially concerns financial self-reliance, it can also relate to other forms of investment, such as investment in time, knowledge, expertise and organizing capability. In this context, where socio-environmental sustainability and rethinking multiple urban systems are on the agenda, having to think about economic and financial aspects is considered as being a difficult, but quasi-mandatory task.

Nonetheless, according to the respondents this does not necessarily have to lead to a classical discussion about business models. Quite the opposite, the most important thing is that the framework helps to prompt users to reflect on this or to think about the feasibility and survival chances of the urban project in the broad sense of the word. For example, users are asked to consider whether the project can retain its sustainable system under pressure from possible (external) shocks, such as an economic crisis or financial setback. During the focus group, it became clear that an urban project must more or less be able to be self-sufficient or it must be able to rely on alliances, which can prove significant in case of need. This can also include the degree to which it is possible to put forceful pressure on the existing system or to push it in a particular direction. According to the respondents, a “resilient” project of this nature is furthermore able to transform itself to ensure its continued existence. In reply to the question how and where this concern should be incorporated in the framework, the respondents put forward the idea of doing this under the label of “entrepreneurship”. In addition, it is pointed out that this dimension is best included under the aspects concerning the transformative nature of the project rather than its sustainable nature.

4. Reflections and Conclusions

Bringing transition thinking into the discussion on sustainable urban projects adds two major changes. Firstly, the transition approach goes beyond the idea of win-win, new business opportunities, green economy or ecological modernization, and acknowledges that we have to face deeper changes and hard choices [64]. Although a radical system change is put at the top of the agenda, the transitions literature hardly dwells on what sustainable development exactly means [65]. Its open-endedness fits within the “constructivist” interpretation [66,67], which we believe the guiding concept of “sustainability” requires, since it allows pluralistic appropriation in a deeply political and participatory process. As such, “urban sustainability” is not at all an objective criterion. At the same time, this open-endedness leaves opportunities for a business-as-usual approach or a weak interpretation of sustainability. There is no objective definition of what precisely is socially equitable, at what point the limits of environmental carrying capacity are exceeded, or when a system culture is transformed in a radical way. All these guiding terms are interpreted and defined differently depending on the spirit of the times, the place in the world, a person’s worldview or position in society. Although our discussion framework aims to improve the debate on ecological and social concerns, we cannot exclude a soft or weak interpretation of our basic elements. However, our empirical exercise in the city of Ghent suggests that the adding of elements concerning the transformative character of urban projects raises the discussion to a higher level. Respondents and experts were forced to think about radical changes in the structure (e.g., institutional or economic), culture (e.g., values or paradigms) and practices (e.g., routines or behavior) of urban systems. Also the element concerning “cross-contamination” makes respondents think in urban systems, or at least about possible interactions beyond the initial scope of the urban project.

Secondly, a key insight of transition theories is that radical novelties may start in niches. Strategic Niche Management (SNM) suggests that “*sustainable innovation journeys can be facilitated by creating technological niches, i.e., protected spaces that allow the experimentation with the co-evolution of technology, user practices, and regulatory structures*” [13], but, of course, linkages with on-going processes at broader regime and landscape levels are necessary [14]. Because niche projects and all kinds of experiments in cities are too important for shifts of urban systems, the subject of our framework cannot be limited to traditional urban policy interventions. So it is inappropriate to reserve the label “sustainable urban projects” merely for the classical interpretation of an urban project at housing block or district level with a strong focus on physical interventions and which is generally managed by a public authority. Because each urban project is unique, a customized approach is required. The history, the physical context, the policy situation and the complexity of the urban system at stake are so specific in nature that it is difficult to assess easily on the basis of certain fixed “*passe partout*” or “uniform” criteria how an urban project can contribute to a sustainability transition. As a consequence, the central concepts of our framework will be refined or operationalized in consultation (be it in harmony or in conflict) between all the stakeholders for each case or each project.

Acknowledging the normative character of the concept “urban sustainability” and the uniqueness of each urban project is an important condition for enabling, or facilitating, an instructive discussion. The use of our discussion framework may therefore not be reduced to ticking off the accompanying 15 elements, but should serve as a basis or starting point for a substantive and instructive discussion. The framework is a means to permit better understanding of the diversity of sustainable urban projects, enabling the better detection of those projects as well as learning to estimate their potential. It is, in other words, a method of encouraging debate and influencing (policy) decisions. Once more, we did not have the intention to deliver an objective measuring tool or checklist, but rather to provide a learning tool that highlights the importance of mutual consultation and dialogue. Subjective assessments regarding certain values or elements as proposed in the framework can (or rather: must) play an important role in these discussions.

Sharing experiences within focus groups or workshops is crucial for learning from multiple partnership arrangements concerning sustainable urban projects and for drawing lessons from the transfer or joint shouldering of responsibilities. It is vitally important that an exchange of findings should occur between the thinkers, experts, partners, citizens and politicians directly involved in the project. This exchange should take place with a view to drawing lessons for the follow-up stage and for searching for common meanings, significances and supporting ideas. The debate should not become bogged down in attempts to convince the other party. Equally important is the exchange, interaction or networking between various similar initiatives. Many urban projects devote a lot of time and energy to their own functioning and make little attempt to address what is going on beyond their confines. While not all projects need explicitly to engage in a broader urban narrative or (counter) discourse, this can nonetheless increase their visibility or effectiveness and strengthen the urban debate. This debate, not least about how we wish to live in cities, can help to take steps effectively in the transition towards sustainable urban systems. And not, as has happened so often, to lapse into “business as usual” mode.

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Author Contributions

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Conflicts of Interest

The authors declare no conflict of interest.

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