

Insights on approaches to sustainable just cities

M16/April 2020

Project full title	Urban Arena for sustainable and equitable solutions
Project acronym	UrbanA
Grant Agreement No.	822357
Coordinator	ICLEI European Secretariat GmbH
Project duration	1 January 2019 – Dec 2021 (36 months)
Project website	www.urban-arena.eu
Work Package	
	3. Mapping: Uncovering solutions for sustainable & inclusive cities
Deliverable	3.3 Insights on approaches to sustainable just cities
Delivery Date	24.04.2020 (Month 16)
Lead author(s)	Karlijn Schipper, Flor Avelino, Frank van Steenberg, Tom Henfrey & Vaishali Joshi
Contributor(s)	All project partners
Reviewer(s)	Sarah Rach & Lucia Di Paola
Dissemination level:	Public



SUMMARY	3
Chapter 1: INTRODUCTION	5
CHAPTER 2: DATABASE-MAKING PROCESS AND THE SUSTAINABLE JUST CITIES WIKI FROM A KNOWLEDGE COMMONS PERSPECTIVE	7
2.1 A knowledge commons-based approach to creating, sharing and owning knowledge	7
2.2 UrbanA wiki database-making process	10
2.3 Ways of making cities just and sustainable	12
CHAPTER 3: A TRANSITION POLITICS PERSPECTIVE ON SUSTAINABLE AND JUST CITIES	20
3.1. The politics of just sustainability transitions in cities	20
3.2. A transition perspective on approaches to sustainable & just cities	22
3.3. Sustainable & Just Cities by & for whom? Multi-Actor Perspective	26
3.4. Urban Transitions and Translocal Diffusion of Urban Initiatives	30
3.5. Transition questions/ framework	31
CHAPTER 4: INSIGHTS FROM WHAT CAME BEFORE THE WIKI	32
4.1 Basic characteristics of the included projects and approaches	32
4.2 Reflections on SJU-intersections within the selected projects	33
4.3 Reflections on excluded projects	36
4.4 Reflections on first mapping phases and SJU-intersections	37
CHAPTER 5: INSIGHTS ON APPROACHES TO JUST SUSTAINABLE CITIES	39
5.1 Approaches in and across the urban context	39
5.2 Interlinkages between sustainability and justice	41
5.3 Exploring the transformative potential of approaches for transition	49
5.4 Bridging institutional logics	54
CHAPTER 6: CONCLUSION AND DISCUSSION	57
6.1 Summary of the most relevant starting points and insights	57
6.2 Transdisciplinary and Transformative Research	60
6.3 Opportunities and challenges of co-creating a knowledge commons in practice	61
6.4 Implications for other WP's and upcoming Arena Events	65
APPENDIX	66
Tables of the selected projects	66
Tables of the selected approaches	68

SUMMARY

UrbanA takes up the challenge of synthesizing and brokering knowledge for sustainable and just cities and translating this knowledge into action by empowering city-makers across Europe. Key in this endeavour is the establishment and nurturing of a Community of Practice (CoP). The starting point for this collaborative learning process was the mapping of existing projects and their respective approaches to sustainable and just cities. This deliverable (D3.3) presents the meta-reflection and insights on working on just sustainable cities that emerged during the mapping phase of UrbanA: what do the approaches and the co-creative process teach us about how to make cities more just and sustainable? What is the transformative potential of such approaches in the context of rapid social change and pressing urban sustainability challenges?

Theoretically we take the politics of transitions as our starting point to make sense of the approaches. We've translated the transition insights into the following guiding questions: 1) What is the (trans)local emergence and diffusion of approaches in and across urban contexts? 2) How to link or deal with the tension between sustainability and justice? 3) What role do different approaches play in different phases and dimensions of ongoing transitions towards just and sustainable cities? 4) What are the dominant institutional logics of the selected approaches and which logics are they challenging / trying to change?

The urban scale proved to be a fruitful site for addressing justice and sustainability. On the one hand, urban environments harbour the conditions necessary for approaches to develop and diffuse and on the other hand the mapped approaches are suitable for tackling the specific sustainability challenges of cities. The identified tensions between sustainability on the one hand, and inclusivity, recognition and equity on the other, are apparent in the selected projects and approaches. Often the notions of sustainability and justice are not made explicit or operationalized. The approaches emphasize one or the other side of the coin and the connection between the two remained unclear. We argue that this is partly due to the multi-interpretability nature of these value-laden principles. Justice was often implicitly addressed instead of used as an explicit orienting principle (e.g. making a city more just). We identified a risk that justice can become instrumentalized in order to make approaches more ecologically sustainable or profitable.

However, some approaches do interlink the notion of environmental sustainability and justice. This often proved the case within approaches which were aimed at promoting biodiversity and sustainable food in combination with the empowerment of local communities. Additionally, the notion of transformation helps to add a sense of directionality to the approaches and there is a strong emphasis on the

democratization of local policies, resources and decision-making processes which links to different types of justice (mainly procedural). In particular, the role and involvement of local communities and disadvantaged groups was stressed in this call for democratization.

We argue that rather than assessing if an approach/initiative, or city is just and/or sustainable, we should take the notions of sustainability and justice as 'orienting principles' to guide processes of societal transformation and to democratize the imaginative search for such sustainable and just cities. Different approaches and the people involved in different initiatives and networks are likely to have different ideas of what (un)sustainable and (in)justice means in their urban environments. These differences might be partly accounted for by the inherent differences across institutional logics. What does justice and sustainability mean from a community, market or state logic perspective? What does market or community justice look like? Thus it is crucial to confront different perspectives and logics with each other while discussing questions like: How can we reimagine our cities? And how can we address the numerous tensions between sustainability and justice in our approach, initiative and/or city?

In this deliverable we frame our aim of brokering and synthesising this type of knowledge as the challenge of curating a knowledge commons on sustainable and just cities. Commoning is coherent with the subject matter and the aims, as well as with the ethos and organizing principles of the UrbanA project. We are committed to organize and facilitate an open process that prioritizes the needs of the people that are affected by injustice in cities over the needs of the market or bureaucracy and using open source WikiMedia software to share and co-create the databases of approaches and projects on Sustainable Just Cities is part of this commitment, and itself an experiment. Based on the first year of UrbanA's journey we identify a number of challenges and questions related to creating and sharing knowledge commons. Such as; how could the research funding logic of the EU better recognize and provide space for a commons-based approach to knowledge production? How to curate a knowledge commons in a way that makes it easy to document and distribute at the same time? How to lower the threshold for members of the Community of Practice to contribute directly to the Wiki? How to prevent the Wiki from becoming a flat database and keep the contextual understanding of approaches? How to curate the quality of a knowledge commons?

Chapter 1: INTRODUCTION

In recent years many research and innovation projects have focused on teasing out the drivers of urban social injustices and/or ecological unsustainability. Based on these projects, governance interventions and policy recommendations have been developed to make cities more just and sustainable. However, this knowledge is often fragmented and scattered because of different scientific disciplines, networks and language barriers. These insights are also often hard to access for different urban change makers. Therefore the need to consolidate and effectively communicate this knowledge and experience remains.

UrbanA, short for Urban Arenas for Sustainable and Just Cities, takes up the challenge of synthesizing and brokering knowledge for sustainable and just cities generated by prior research and innovation projects, and translating this knowledge into action by empowering city-makers across Europe. Key in this endeavour is the establishment and nurturing of a Community of Practice (CoP). This CoP consists of individuals who share a passion for a just and sustainable city. The core of this community, a group of 25 UrbanA Fellows, convenes during four co-creative spaces, known as Arena events, to share and co-create actionable knowledge.

The starting point for this collaborative learning process was the mapping of existing projects and their respective approaches to sustainable and just cities, which is the overall aim of WP3 led by DRIFT. The mapping was not a goal in itself but was in the service of the Arena process and of the UrbanA aims as a whole. The database-making has been outlined and presented in-depth in the UrbanA Mapping Guidelines (D3.1) and as the UrbanA Wiki Database on Approaches to Sustainable & Just Cities (D3.2). This deliverable (D3.3) builds upon that work and presents the meta-reflection and insights on working on just sustainable cities that emerged. As will become clear, the UrbanA Consortium has taken a commons-based approach to mapping existing approaches and co-creating insights (chapter 2).

The purpose of this deliverable D3.3 is to make sense of what we've learned during the database-making thus far. In other words: what do the approaches and the co-creative process teach us about ways to make cities more just and sustainable? What is the transformative potential of these approaches in the context of rapid social change and pressing urban sustainability challenges? Different fields of research have explored the interlinkages between justice, sustainability and urban transformations. UrbanA's mission is to broker and synthesise actionable knowledge by bridging these fields. Which is paramount to make sense of approaches to sustainable and just cities. However, one can only start to bridge from a place of deep knowledge about these phenomena. Due to the tensions between sustainability and justice - both within approaches and between different institutional logics from which to work on

sustainable and just cities - we take the politics of transitions as a starting point. From there, we explore what a transition perspective implies for making sense of the diversity of approaches to sustainable and just cities gathered in the database.

This exercise of meta-reflecting and synthesising insights wraps up the mapping process of approaches and provides a steppingstone for the next steps in the UrbanA project: distilling drivers of (in)justice (WP4), creating governance scenarios (WP5) and formulating, discussing and sharing policy advice (WP6).

Chapter 2 reiterates the mapping process and introduces [the Wiki on Sustainable Just Cities](#) from a knowledge commons perspective. Chapter 3 introduces the transition perspective on just and sustainable cities from a political perspective. In Chapter 4 we present the general insights distilled from the first phases of the mapping process. Chapter 5 describes the lessons learned on approaches to just sustainable cities from a transitions perspective. In the conclusion and discussion we summarize our key findings, discuss what we can learn from transformative and action research, our lessons of curating the Wiki on Sustainable Just Cities and how the insights in this Deliverable could inform the rest of the activities in the UrbanA project.

CHAPTER 2: DATABASE-MAKING PROCESS AND THE SUSTAINABLE JUST CITIES WIKI FROM A KNOWLEDGE COMMONS PERSPECTIVE

The Wiki on Sustainable Just Cities is part of a living knowledge commons that serves as a resource from which city-thinkers and city-makers can take inspiration and insights to guide their (trans)local actions. With this database the UrbanA project aims to contribute to actionable knowledge for sustainable and just cities. UrbanA's collaborative journey began in January 2019. In this section we introduce the what, why and how of creating a knowledge commons (§ 2.1) and describe who has been involved in the database-making process so far (§ 2.2). In §2.3 we present the #42 ways of making cities more just and sustainable, as documented in the Wiki on Sustainable Just Cities.

2.1 A knowledge commons-based approach to creating, sharing and owning knowledge

The Commons have been defined as, “a plurality of people (a community) sharing resources and governing them and their own relations and (re)productive processes through horizontal doing in common, commoning” (De Angelis 2017, p.10). The Commons may contain goods and resources that are *rivalrous* or *subtractable* - depleted by use and therefore not freely available to multiple users - and non-subtractable or non-rivalrous goods and resources, such as knowledge, whose availability to others is not depleted through use (Oakerson 1992: 43-44; Hess & Ostrom 2007: 8-9). Knowledge commons are not only non-rivalrous, many in fact increase in value in direct proportion to the number of users (Bollier 2007: 34).

Knowledge commons have been defined as, “the institutionalized community governance of the sharing and, in many cases, creation of information, science, knowledge, data, and other types of intellectual and cultural resources.” (Strandburg et al 2017: 10). The concept and practice of knowledge commons emerged, both in response to expansion of intellectual property rights and the privatization of knowledge, and building on older traditions of free speech and democratic practices, supported by the new technological capabilities for sharing knowledge and information provided by the internet (Bollier 2007, *op. cit.*). Important examples include the Public Library of Science ([PLOS](#)) (Neylon 2015), [Wikipedia](#), open source computer code and software such as [LibreOffice](#) (Linksvayer 2015), and numerous open educational courses and learning materials (Forward 2015).

A (knowledge) commons emerges from the dynamic interaction among the following three elements: 1) a resource, 2) the community of commoners gathered around it and 3) the protocols of stewardship consisting of a set of rules to care for the resource

and the community (Ostrom 1990). The fact that a commons emerges from the interaction among the resource, the community and the rules implies that the existence of a commons depends upon the act of commoning (Bollier & Helfrich 2019: 13-28). This means that peer-to-peer interaction, either online or physically, is a necessary condition for a commons to emerge and persist (Bauwens, Kostakis, Troncoso & Utratel, 2017).

Commoning is coherent with the aims, ethos and subject matter of UrbanA in numerous and important ways. Physical commons as the basis for natural resource management have long been understood to be a prerequisite for sustainability (Berkes 1989; Berkes & Folke 1998). This realisation has more recently entered into social justice movements, which now recognise the need for diverse forms of commons and commoning as alternatives to profit-oriented business and centralized state government (e.g. Large 2010; Bollier & Helfrich 2012). The defense of existing commons, and creation of new ones, is thus both a key strategic orientation and mode of practical action among diverse movements for more sustainable and just forms of social, economic and political organisation worldwide (Henfrey & Kenrick 2017). Cities are home to huge numbers and diversity of commons and commoning initiatives aiming to promote sustainability and/or justice, both deliberate and de facto, many of which explicitly seek to reclaim the city as a common space that exists and operates in order to serve the collective good (Stavrides 2016).

If we apply the principles of the commons - resource, community, protocols & commoning - to the activities of UrbanA then the resource is translocal knowledge on sustainable and just cities. The community consists of (action) researchers, fellows, participants in the Arena Events and other city-makers who are involved or impacted. The rules are, for example, the editing guidelines of the Wiki on Sustainable Just Cities and the formal and informal rules of behaviour during the Community conversations, meetings and Arena events (e.g. facilitation methods, conversation principles etc). Commoning and peer-to-peer exchange among and within different circles of the CoP allows them to create and distribute shared value that might turn into input for new cycles of commons-based knowledge production.

It is important to note is, that commons do not exist in isolation from, or in simple opposition to, either state or private and corporate capitalist entities, but interact with them in multiple, often complex forms of interrelationship and interdependence (De Angelis 2017, op. cit.). While we emphasise the use of open source software like MediaWiki, we also use corporate products like Google Docs. extensively in our work. Although we seek to operate the UrbanA community of practice as a commons, we rely on commercial platforms such as LinkedIn and Facebook for communications.

Above all, UrbanA is ultimately financed by the EU, a political entity that we believe could benefit from far greater attention to commons as a governance principle and vehicle for participatory democracy, social justice and sustainability. These contradictions are a central feature of action for urban sustainability and justice. Modelling and embracing them through the knowledge commons is therefore an important part of our work.

In UrbanA we position this generative commons-based approach to knowledge co-creation as an alternative to extractive ownership models. We see this as particularly important in the field of academic publishing, where commercial journals have created a captive market for academic status. Publicly funded researchers conduct research, write articles and evaluate their suitability for publication in publications then sold at astronomical prices to public institutions, a quadruple subsidy that allows corporate academic publishers to register profit margins of up to 40 per cent.¹ In UrbanA, we are committed to challenge this unjust and unsustainable system, and to facilitating an open process that prioritizes the needs of the people that are affected by injustice in cities over the needs of the market or bureaucracy (cf. Bauwens et al., 2017, p. 45).

Creating the Wiki on Sustainable Just Cities is part of this urban commons movement. To create a database using a wiki is an experiment in itself, in this case inspired by similar experiments such as the [P2P Foundation Wiki](#), the [Commons Transition Wiki](#), the [Sociopedia](#), [Ekopedia](#), and the [Knowledge Commons for Community-led Action on Sustainability and Climate Change](#) developed and curated by UrbanA partner ECOLISE . One of the main reasons to choose a wiki platform is because it enables a decentralized approach to knowledge co-creation and information sharing, which resonates with UrbanA's *modus operandi*. It facilitates a collaborative way of working as users can modify and structure content directly from their web browser without the need for special software. In addition, rather than a central manager the 'wisdom of the crowd' is in the lead. The most important reason for creating an UrbanA wiki is that it supports inclusive, co-creative, open access and open source approaches to knowledge generation. We use MediaWiki, an open source knowledge management platform initially developed by The Wikimedia Foundation as the architecture for Wikipedia.

The Wiki on Sustainable Just Cities provides an open source shared resource for the [UrbanA Community of Practice](#) (CoP) and those who are concerned and/or impacted by urban (un)sustainability & (in)justice. The Wiki can continuously grow and adapt

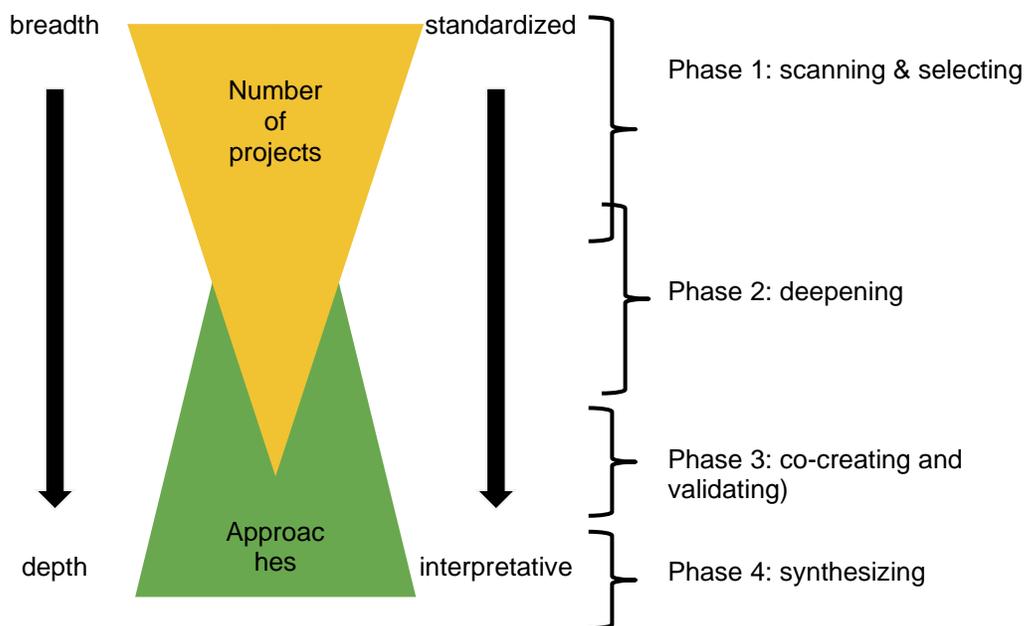
¹ Is the staggeringly profitable business of scientific publishing bad for science? (2017, June 27). The Guardian <https://www.theguardian.com/science/2017/jun/27/profitable-business-scientific-publishing-bad-for-science>

based on the CoP's collective process over the coming years. Our database-making contributes to the ongoing creative learning process envisioned for the [next UrbanA Arena events](#), in Barcelona, Berlin and Brussels. We actively seek to continue unlocking knowledge beyond the initial EU projects that we mapped, by engaging city-makers in this co-creative process and by grounding the approaches to just and sustainable cities in real life experience and examples. Crucially, it can also live on after the UrbanA project, which ends December 2021, because of its compatibility with other Wiki databases. To enable this, the consortium agreed to license wiki content for free re-use and remixing under [Creative Commons](#), one of a number of mechanisms for legal recognition of intellectual property as a common resource (Bollier 2015).

2.2 UrbanA wiki database-making process

We designed a mapping process of four phases: moving from a breath of projects to the depth of approaches and moving from a more systematic approach of scanning the CORDIS database to interpreting project outputs and interviews.

Figure 1: Overview of the mapping process and focus per phase (source: deliverable 3.1).



Our first step was to map previous EU-funded research and innovation projects and their related approaches to just and sustainable cities. We began by systematically scanning the CORDIS database leading to a long list of 427 relevant projects. Also, additional sources were used (see Table 1 below). A total of 350 projects were selected

to review more in-depth since others were coded as being non-relevant for our process. We will reflect on this process in chapter 4.

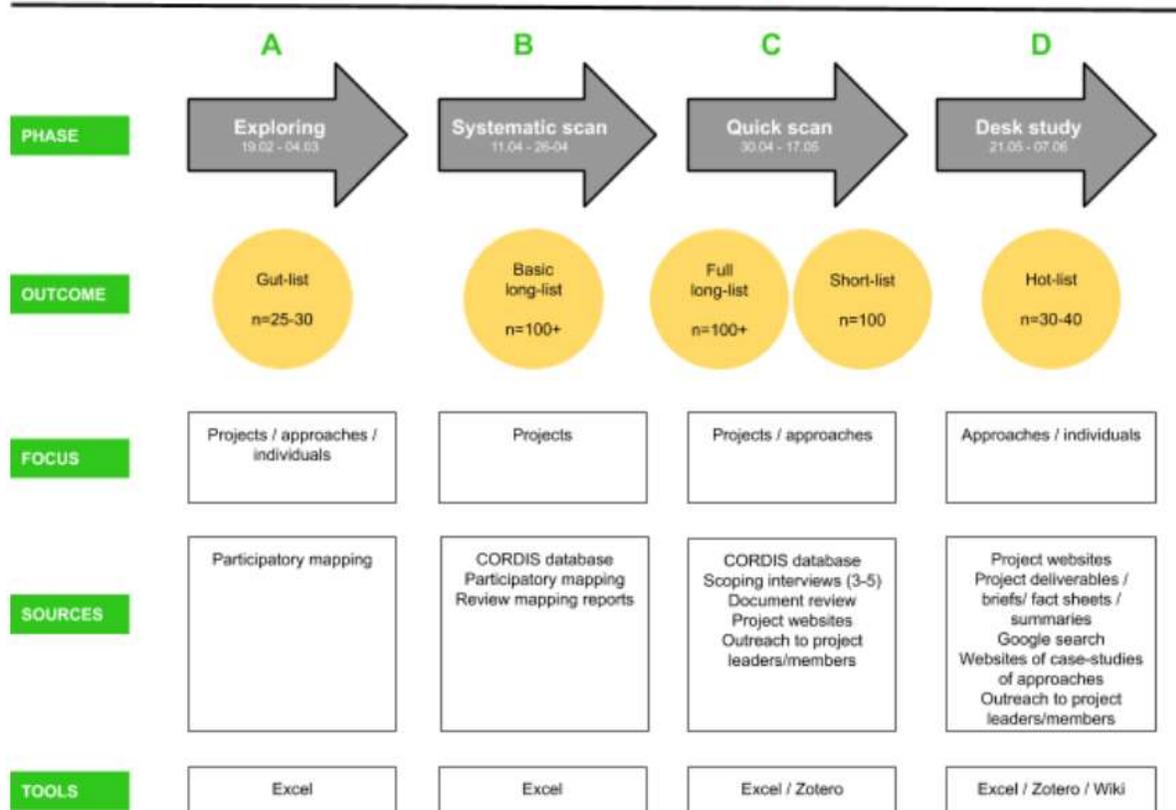
Table 1: Number of projects and sources

SOURCE	# projects	%
CORDIS	247	70,6%
Social Media input	69	19,7%
Other sources (reports, studies, etc.)	34	9,7%
TOTAL	350	100,0%

From this set of projects, we distilled a short-list of 194 approaches. Desk study and interviews deepened our understanding of these approaches and helped to whittle the list of 194 approaches down to 33 approaches and clusters of approaches, each of which formed the basis of a single wiki page. Once the UrbanA team had created these 33 wiki pages we invited the wider UrbanA Community of Practice — everyone following UrbanA — to add their input into the database. UrbanA fellows and those who were attending the first UrbanA Arena event in Rotterdam, in November 2019, were asked to engage, add to and edit the wiki pages. The database then informed the activities and sessions organized during the event in Rotterdam, at which 60 city makers from across Europe gathered. In turn the feedback and insights from the Rotterdam event were used to adapt the wiki pages. This process shows that our way of mapping has not simply been a matter of academic ‘experts’ gathering data, as explained in [an earlier blog](#) post. It has also been a process of engaging people and of allowing them to feel heard and acknowledged for their prior and ongoing efforts on urban sustainability and justice, as part of a transdisciplinary knowledge co-creation community. In the conclusion we will share our reflections on these processes.

Figure 2: Visualization of phase 1 of the mapping process (source: deliverable 3.1)

Phase 1: Scanning and Selecting



2.3 Ways of making cities just and sustainable

The Just Sustainable Cities Wiki so far documents 42 approaches to tackling urban injustice and unsustainability, ranging from democratic governance and financial mechanisms to community gardens and Transition Towns. With approaches we mean (sets of) interventions, actions, strategies, solutions or policies which address (urban) sustainability and/or justice. This can be a general approach (e.g. Nature Based Solutions) or a more specific sub-approach (e.g. rain gardens). We clearly distinguish approaches from specific instances/case-studies of how these approaches manifest in specific projects/pilots/initiatives in specific urban contexts (e.g. rain gardens in Rotterdam) and/or how they are studied or experimented with in research/innovation projects (e.g. rain gardens in Rotterdam as studied in a specific research project). Thus, by reframing these specific instances or case-studies to the more abstract level of approaches, we aim to broaden the accessibility and applicability of the knowledge in the database.

Table 2: overview and short description of approaches in the Wiki on Just Sustainable Cities.

Approaches	Description
Beyond GDP indicators	Beyond GDP indicators refers to alternative economic indicators which do not assume economic growth to be the most important variable to assess a country's development.
Citizen Science	Citizen Science is the involvement of the public in scientific research - whether community-driven research or global investigations.
Civil Disobedience	Civil disobedience is a public, non-violent and conscientious breach of law undertaken with the aim of bringing about a change in laws or government policies
Co-living, co-housing & intentional communities	A variety of approaches and movements have the aim to provide affordable, ecological or community housing in both urban and rural contexts.
Ecovillages	Ecovillages are communities where people aim to live in harmony with each other and with nature.
Co-working spaces	Co-working spaces are spaces where entrepreneurs, companies and businesses share a workspace. They can have different forms, different user's profiles and organizational structures.
Community gardens and food	With modern cities taking up only three percent of the world's land surface, their ecological footprints actually cover the entire globe. In recent decades urban solutions are moving from Sustainable Cities to Regenerative Cities. A factor in this shift seeks to reduce energy use in food transport by increasing urban agriculture, thereby cutting fossil fuel dependency and misuse while building community resilience.
Crowdsourcing	Crowdsourcing is a participatory online activity in which participants voluntarily undertake a task in response to a call or request from a state institution, group, company, individual or non-governmental organisation or other groups.
Culture for empowerment	Culture for empowerment aims at empowering young or disadvantaged people through culture - based solutions.

Data Collection	Data is collected via electronic and digital technologies and then analysed either within a system or as part of a wider organisational structure.
Degrowth movement	Degrowth is a political, economic, and social movement to voluntarily transition towards a just, participatory, and ecologically sustainable society by downscaling production and consumption.
Democratic innovation through recognition	Democratic innovation through recognition focuses on inclusivity in decision-making and policymaking processes. Diverse participants are convened in different and original ways in order to include multiple perspectives in urban sustainability efforts.
Digital fabrication	Digital fabrication is a manufacturing process in which a machine is operated by a computer to make a certain product.
Energy and Mobility solutions	Increased fossil fuel use is a major cause of global warming, leading to Climate Breakdown. With much energy being used in the energy and mobility systems of moving citizens about cities, this cluster addresses technological interventions that can support the transition to a low-carbon society.
Experimentation labs	Urban experimentation labs are place-based social experiments that test ideas, methods and technologies from different domains in order to better address specific (and complex) urban challenges in a contextualised manner.
Financial practices and instruments	This approach tackles unsustainability and injustice in cities from a financing perspective. From this perspective the distribution of resources and the way our economic system is organized is the starting point to think of just and sustainable cities.
Governance and participation processes	Governance and participation processes geared toward urban sustainability emphasise defining and addressing environmental problems as well as envisioning the future of cities, mainly based on the co-production of knowledge through innovative, diverse and strategic partnerships.
Governance for urban climate mitigation and adaptation	In the context of just and sustainable cities, governance for urban climate mitigation and adaptation refers to the effort of public institutions to engage the civil society in policy making processes.

(Impact) evaluation and assessment framework	<p>Research on sustainable and just urban areas has involved a variety of evaluation and assessment methods. This cluster summarizes a sample of these methods, which have been employed in the study of the following topics: environmental conflict in coastal urban areas, food supply chains, transitions to sustainable and low-carbon societies, environmental public health risks, distribution of green amenities, and common good contributions by companies and other organizations.</p>
Integral MetaMapping	<p>An integrated map of evolutionary values that encompasses subjective/objective and intersubjective/interobjective values is a useful and powerful tool for researching, planning, tracking and managing change in an organization, community, city or society.</p>
Co-learning and knowledge brokerage	<p>Co-learning and knowledge brokerage is an approach implemented in cities with the objective to facilitate the circulation of ideas, understandings and cutting-edge research between a diverse variety of actors in society. It is closely related to the concept and practice of multi-stakeholder partnership, as it requires the convergence of people and groups from different fields and backgrounds, and it shares the aim of exchanging, "translating" and creating knowledge, for a richer reflection on how to address complex urban challenges.</p>
Nature-based solutions	<p>Cities around the world are undergoing significant transformations and are facing substantial challenges in the form of urban densification and extreme weather conditions, due to climate change and the ongoing urbanisation. In Europe, more than 70% of the population is already living in urban areas. Nature-based solutions (NBS) are becoming an effective tool for such eco urban regeneration, but their social impact is being questioned as a form of green gentrification in certain communities.</p>
Nature-based solutions for climate adaptation	<p>Recent UN warnings about increased problems arising from climate breakdown have led to recent declarations of climate emergency by various governments. With cities increasingly being seen as major solutions to Global Climate Change, this wiki page examines how best cities can implement climate adaptation responses using nature-based solutions (NBS).</p>
Nature-based solutions for health and equality	<p>This wiki page examines how NBS can play a role and bring green elements into everyday urban living in the</p>

	most equitable of ways, so that citizens of all communities have access to such urban regeneration projects.
Multi-stakeholder partnership - policy	Multi-stakeholder partnership - policy refers to approaches to (urban) governance that enable sustainability and climate change related transformations through the practice of connecting multi-sectoral networks with individuals and organisations on-the-ground. It deals with the challenge of bringing together public, private, and civil society representatives in ongoing processes of communication and exchange, in order to enable innovative solutions to complex problems.
Participatory budgeting	Participatory budgeting is a democratic process in which community members decide how to spend part of a public budget. The approach gives people real power over real money.
Pathways and scenarios	The use of pathways and scenarios is a tool for envisioning transitions.
Pathways and scenarios for post-carbon societies	Given the EU's ambitions to reduce its GHGs, and calls by European leaders for net-zero carbon emissions by 2050, the use of pathways and scenarios is an important tool for envisioning transitions to post-carbon societies.
Policies and practices for inclusion of disadvantaged groups	Practices and policies for the inclusion of disadvantaged groups aim to provide all citizens with equal access into urban life and ensure their right to the city.
Reconceptualising urban justice and sustainability	Alternative conceptual framings are a feature of many and diverse approaches to urban sustainability and/or justice, and in particular their intersections. Arguments in their favour range from the ethical to the instrumental: the moral right of all those living in cities to contribute to shaping their future, to the practical importance of diverse outlooks, ideas and capabilities in working towards sustainability and justice.
Regeneration of disused urban land	A considerable percentage of land cover in most contemporary cities lies vacant or in deep neglect, often leading to social and economic problems. These areas are often brownfield sites or post-industrial areas, whose regeneration to improve urban biodiversity and provide additional ecosystem services can lead to a more ecologically sound built environment and improvement of amenities and contact with nature for local communities who have faced, at times, decades of social neglect and

	social fragmentation.
Right to housing	The right to housing indicates the right of all individuals to have access to adequate shelter.
Right to the city	The right to the city is far more than a right of individual access to the resources that the city embodies: it is a right to make and remake ourselves and our cities.
Sharing and cooperatives for urban commons	Sharing in the context of urban sustainability and justice refers to a shift in the paradigm of individualistic or exclusive practices, which modern urbanism and urban lifestyle have assumed with regard to certain resources and services. Cooperatives are jointly-owned and horizontally/democratically governed enterprises, and can include consumer cooperatives, worker cooperatives, or shared/hybrid cooperatives where ownership is shared between consumers, workers, and other stakeholders like non-profits. The concept of the commons represents a form of collective but decentralised control over resources, or forms of wealth, which (should) belong to all and must be actively protected and managed in a collective manner, for the collective good.
Smart Cities	Smart City is an integrative approach to utilize the opportunity of digitalization and new technologies to overcome urban issues.
Social food movements	Social food movements aspire to make food production and consumption more sustainable, strengthen the local food sector, connect people through food, create more awareness about the food we eat and also revive the joy of it.
Sustainable food supply chains	Socio-environmental research and policymaking regarding sustainable food supply chains is essential in the creation of sustainable and just cities.
Sustainable Households	With much energy being used to heat or cool poorly designed or insulated buildings, this approach examines initiatives seeking to improve energy efficiency, namely the energy performance of building as a means of lowering carbon emissions to create carbon-neutral habitats, communities and cities. It also examines supply of renewable energy as a means to mitigate climate change, provide access to affordable clean energy and create job opportunities.

Participatory pollination	With governments being pushed to declare Biodiversity Emergency after recent UN warnings, pollinators (birds, bees, ants etc) have been identified as essential to healthy and functioning ecosystems, their extinction could cause massive food shortages and possible societal breakdown, their role in protecting areas for biodiversity to flourish is now critical for human wellbeing (TEEB, 2010). Participatory processes to ensure natural pollination include citizen science approaches in projects based around nature-based solutions (NBS).
Transition towns	Transition Towns (more commonly referred to as the Transition movement) refers to community-based initiatives that address the complex challenges of our time by developing community resilience and creative innovation for sustainability, with a great variety of approaches to create a low-carbon future and nurture a caring culture.
Municipalities in Transition	Municipalities in Transition is a key approach designed to help communities and municipalities to collaborate well to create systemic change for sustainability.
Urban development through cultural solutions	Urban development through cultural solutions is about using arts and cultural heritage (e.g museums, old industrial sites etc.) to develop (degraded) urban spaces.
Other	
Other databases	These include Share city database, URBACT, JPT Urban Europe, Transformative Cities, Fearless Cities, Municipalities in Transition case study database, Critical turning points database, Urban Nature Atlas, OPPLA, Civics, The SUSY-map, Rescoop-EU, Community Lovers Guide, Agriculturas Colectivas, 100 Resilient Cities, C40 cities, and the global platform for sustainable cities.

Although this list might suggest that these approaches are isolated or static, we would like to emphasize that in practice many of these approaches are interconnected, interdependent, overlap and are continuously evolving. The framing of these approaches is very much a result of a discourse analysis of major EU-funded projects done by the consortium researchers and result of our database-making process. Meaning that approaches are assemblages of ideas, objects, activities and actors and have lots of internal diversity. For these reasons it doesn't make sense to compare approaches in and by itself, and assess and rank them (for example,

according to their transformative potential). As we will argue in the next chapter (chapter 3), in which we will outline our political transitions perspective, it is rather about exploring how they can be transformative i.e. in what ways and under what conditions they (can) contribute to challenging, altering and/or replacing structures and institutions of unsustainability and/or injustice and the different roles each approach might play in the different phases and dimensions of ongoing transitions towards more sustainable and just cities.

CHAPTER 3: A TRANSITION POLITICS PERSPECTIVE ON SUSTAINABLE AND JUST CITIES

3.1. The politics of just sustainability transitions in cities

According to Castán Broto & Westman (2016: 637-638), who build on Agyeman et al (2013, 2002), we can broadly characterize sustainable just cities as cities that (strive to) meet the following four conditions: (1) Improving the quality of life and well-being; (2) Meeting the needs of both present and future generations; (3) Enabling justice and equity; and (4) Living within ecosystem limits. Each of these conditions is laden with inherent ambiguities, tensions and political contestations. As such, these are not a matter of objective criteria to implement, but rather 'orienting principles' to guide processes of societal transformation (Patterson et al. 2018), or as we would call it, transitions.

Understanding the politics of just sustainability transitions in cities requires a tremendous interdisciplinary and transdisciplinary effort. Each of these words - politics, justice, sustainability, transitions, cities - comes with an elaborate field of research and practice. Some (emerging) fields of research have already explored the interlinkages with two or more of these concepts, such as the fields of urban sustainability transitions (Loorbach et al. 2016, Bulkeley et al 2016, Gorrissen et al. 2018, Frantzeskaki & Rok 2018), urban political ecology (e.g. Swyngedouw & Heynen 2003, Anguelovski et al. 2019) and just sustainabilities (e.g. Agyeman et al 2013, 2002). While some studies have explored the interlinkages between these different subfields (e.g. the work of Hughes & Hoffman 2020 on just urban transitions), most of them have developed relatively separately from each other. Bridging these different fields is paramount to making sense of approaches to sustainable and just cities, and part of UrbanA's mission to broker and synthesise actionable knowledge. However, one can only start to bridge from a place of deep knowledge. This is why in this deliverable, we take the politics of transitions as a starting point, this being the expertise of the DRIFT-team. From there, we explore what a political transition perspective implies for making sense of the diversity of approaches to sustainable and just cities.

Transition research is a relatively new, interdisciplinary field of research that emerged out of a coalescence between various other 'interdisciplines', including innovation studies, science and technology studies, complexity theory and governance theory (Grin et al. 2010, Markard et al. 2012, Loorbach et al. 2017). Underlying these different backgrounds and perspectives, lies a shared focus on transitions: processes of long-term change in which the societal systems are structurally transformed. While the original focus of the field has been on socio-technical systems (e.g. transport, energy, agriculture, etc.), recent years have seen increasing attention for urban transitions (Frantzeskaki et al. 2018) and for the more social and political aspects of transformative

change. This includes explicit attention for topics of power, politics and agency (Voß et al. 2009, Geels 2014, Avelino et al. 2016), grassroots innovation (Seyfang & Smith 2007, Haxeltine & Seyfang 2012, Smith & Stirling 2018), and transformative social innovation (Moulaert et al. 2013, 2017, Avelino et al. 2019). While the majority of transition research still has a focus on socio-technical system innovation, one could argue that the above-mentioned references represent a (partial) 'socio-spatial' and 'socio-political' turn in transition research, with increasing insights from sociology, political science, anthropology and social geography.

As part of that development, there have also been a growing number of voices calling for more attention to the (in)justice dimensions of transitions (Swilling & Annecke 2012, Van Steenberghe & Schipper 2017). Much of the transition literature has approached sustainable development as a concept that is intrinsically complex, normative, subjective, and ambiguous (Kasemir 2003, Rotmans 2005). Some basic features of sustainability that characterize the concept; it is an intergenerational phenomenon, it operates at multiple scale levels, and it covers socio-cultural, economic, and ecological dimensions. In the broadest sense, sustainable development refers to both environmental concerns as well as "concerns of socio-economic well-being and equality" (Hopwood et al. 2005). However, critics have observed that in many discourses and practices on sustainability, there is a blind spot for socio-economic inequalities and political struggle of (re)distribution of costs and benefits (Agyeman 2008, Swilling & Annecke 2012, Jhagroe 2016). For example, greening projects may even contribute to the reproduction of injustice through (often unintended) processes like e.g. green gentrification (Anguelovski et al. 2018, Perseall & Anguelovski 2016). As such, there is an explicit need for more attention to (different types of) (in)justice in the context of sustainability discourses and practices. This is why the UrbanA project consistently refers to sustainable and just cities.

By centering on the concept of justice alongside sustainability, we aim to emphasize that sustainable urbanism is not about being colour-blind, class-blind or gender-blind when evaluating projects or approaches, but rather about paying particular attention to processes of exclusion of ethnic minorities, people with lower-incomes (and/or in poverty), elderly people and female residents from the benefits of e.g. urban renewal projects or specific low-carbon initiatives (distributional justice). At the same time, we also acknowledge (challenges to) their ability to participate in the design, creation, implementation, and management (participatory and procedural justice) of initiatives or solutions, and to see their ethnic, racial, age, and gender needs, preferences, and uses included when urban (sustainable) projects or interventions are being planned, implemented, and designed (that is interactional equity or justice as recognition). This thus includes issues of exclusion in terms of, inter alia, ethnicity, race, income, age and gender (and the linkages across these categories, i.e. intersectionality) and the impact of exclusion on distributive justice (e.g. equitable distribution of material

resources and services), procedural justice (e.g. participatory and democratic decision-making), and recognition justice (e.g. culturally inclusive practices). These types of exclusion and forms of justice are central to applied and theoretical work on urban justice and the just city in the context of Western urbanization (cf. Agyeman et al. 2003, Mohai et al. 2009, Schlosberg 2007, 2013, Anguelovski 2015, 2016). Here it is important to keep in mind, that (in)justice is a very broad and contested notion. As formulated by UrbanA colleagues in Deliverable 4.1:

“Justice is understood here as a variegated set of conditions — substantially concerned with distribution of resources, political processes, and social recognition — that allows for full human flourishing (Nussbaum, 2000; Schlosberg, 2013). If conditions within a given society systematically support some, but hinder other individuals or groups with regard to basic flourishing (i.e. thriving within reasonable limits) according to achievable outcomes that they value in order to live a healthy and fulfilled life, then that society is to some degree unjust (Fraser, 1995; Nussbaum, 2000; Schlosberg, 2013). Thus, justice is fundamentally about how societies mend (or exacerbate) social inequities that stop some people from flourishing, and the fundamental threads of justice are formed by the different types of inclusions or exclusions that might affect the capacity to ensure equity. Because of its broad application, we recognize that justice is a disputed concept, which is mobilized in numerous forms toward many ends. (Kotsila et al. 2020, p. 8, Google Doc 16.03.2020)”.

We full-heartedly agree that research and practice in sustainability transitions need to pay more attention to issues of (in)justice and that we need to consider what transition research can learn from research on social and environmental justice. However, very few studies reflect on what research on (in)justice in relation to sustainability can learn from transition research, and what a transition perspective can add to understanding societal change towards more just and sustainable cities. Hence, in the next sections we identify what are the implications of a transition politics perspective on (approaches to) sustainable and just cities.

3.2. A transition perspective on approaches to sustainable & just cities

A very important starting point of transition research is that current societal challenges – including economic, social and ecological crises – are persistent and interconnected and that in order to tackle these challenges, innovation is not enough: we need systemic, transformative change. We also need innovation, but it needs to be innovation of a particular kind and in particular combinations with other strategies. Here the distinction between ‘innovation’ and ‘transition’ is an important one.

Although innovation can contribute to transitions at the level of societal systems, it does not necessarily do so. On the contrary, innovation can in fact be used to adapt and optimize the structures in existing systems, as such even hampering a transition in that system. We can define innovation in the broadest sense as ideas, objects or activities that change socio-material relations, involving new ways of doing, thinking and organising (Avelino et al. 2019, Pel et al. 2019, Loorbach et al. 2020). Such innovation can be transformative (i.e. contribute to transitions) to the extent that it challenges, alters and/or replaces existing dominant structures and institutions in the socio-material context (Haxeltine et al. 2017, Avelino et al. 2019). If we translate these transition insights so far to think about approaches to sustainable and just cities, we can argue the following:

- The current challenges of urban injustice and unsustainability are persistent and interconnected and require systemic, transformative change, i.e. transitions.
- Hence any single approach (be it an innovation or other type of alternative, initiative, project, policy, or solution) is in itself not enough to tackle urban injustice and unsustainability. Some approaches, when not combined with others, may even (unintendedly) reproduce patterns of injustice and/or unsustainability
- Approaches can (in combination) contribute to just sustainability transitions to the extent that they challenge, alter and/or replace current structures and institutions that are reproducing unsustainability and injustice.

The transformative dimension of approaches is a gradual process characteristic. Rather than aiming to evaluate whether an approach is inherently transformative or not, it is about exploring how, when and the extent to which this approach can be transformative, i.e. contribute to challenging, altering and/or replacing problematic structures and institutions. Such a process perspective is central to transition research and implies studying how innovations and the institutional environment are changing over time, and how different initiatives and approaches are playing different roles at different phases and places of the system, including the development of new resources and new institutions, as well as adjusting and phasing out existing structures and institutions (Loorbach 2014).

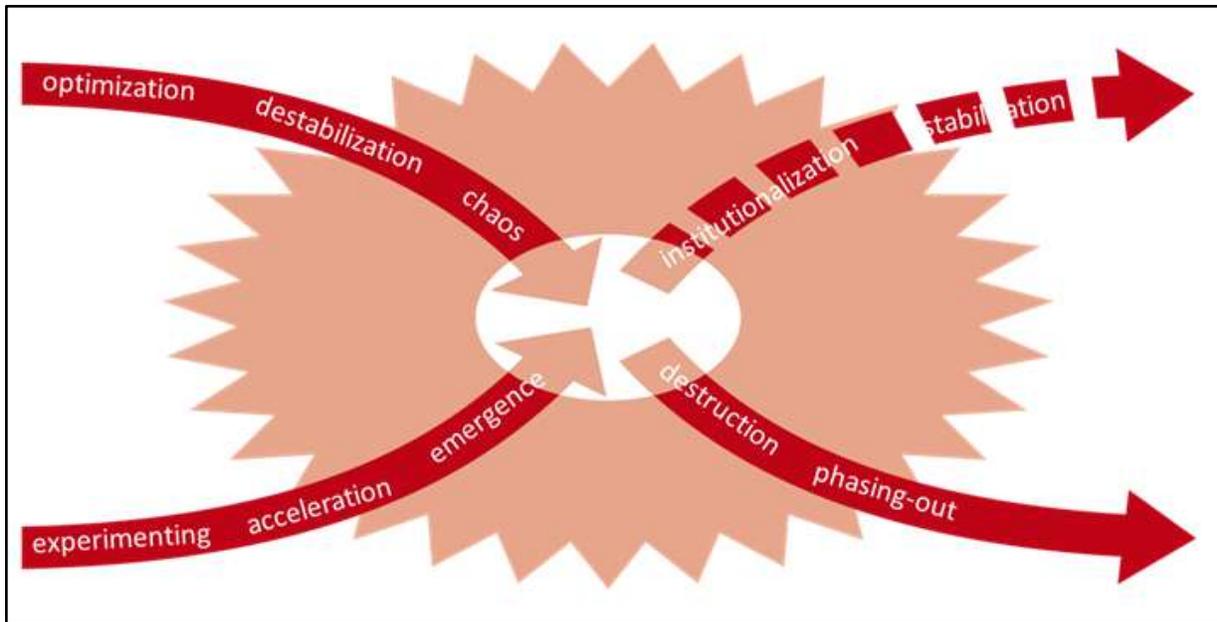


Figure 3: Dynamics of societal transitions as iterative processes of build-up and breakdown over a period of decades. Also known as “the X-Curve” (Loorbach et al. 2017).

Such a process perspective on transformative change also comes with an explicitly dialectic view that acknowledges that even when innovations are challenging (some aspects of) dominant institutions, they can meanwhile also reproduce (other aspects of) these or other dominant institutions (Pel & Bauler 2014, Haxeltine et al. 2017). It has been argued that successful innovations are those that manage to navigate this paradoxical and dialectic confrontation with the existing system: on the one hand being able to translate innovative elements to the mainstream context, while at the same time holding on to the radical core of the innovation (Smith 2006, 2007). This paradox lies at the heart of the very concept of transformative change, and at the core of transition theory. In order for an innovation to have transformative impact, some form of diffusion, mainstreaming or institutionalisation must occur, and in that process, the innovation – by definition – loses some of its original innovativeness. While ‘co-optation’ or ‘capture’ are generally framed as undesirable in the context of innovation and change, it is important to remember that if innovation is to have a lasting transformative impact on its environment, it is actually meant to be captured at least to a certain degree, in some aspects, and by some parts of the surrounding system (Pel 2016).

Applying this transition process perspective to thinking about approaches to sustainable and just cities, we argue the following:

- It is not about judging which approaches are inherently transformative or not, but rather about exploring how they can be transformative i.e. how they (can) contribute to challenging, altering and/or replacing structures and institutions of unsustainability and/or injustice.
- The approaches themselves are in differing phases of development and in different transition contexts, some more focused on the promotion of new ideas and practices, while others have already moved on to more institutional dilemmas. The extent to which an approach tackles (un)sustainability and/or (in)justice, explicitly or implicitly, may be particularly related to the development phase or transition context that the approach is in.
- Different approaches play different roles in the different phases and dimensions of ongoing transitions towards more sustainable and just cities. While some may focus more on prefiguring alternative ideas and practices, others may focus more on contentious actions to challenge injustice. It is particularly the aggregate combination of these different foci and strategies that produces transformative potential.
- Sustainability and justice are inherently contested concepts. There are inherent paradoxes and tensions in transformative change towards sustainable and just cities. Not only are there inherent tensions between sustainability and justice (Ciplet & Harrison 2019 - see more below), there are also paradoxes and tensions within each approach regarding the extent to which it is both transforming and reproducing existing structures. While one approach may be transformative regarding certain structures of injustice, it may still be reproducing other structures of injustice.

To elaborate on that last point, in their article on “transition tensions”, Ciplet & Harrison (2019:3) identify three categories of tensions between justice and sustainability: (1) ‘sustainability-inclusivity’ tensions (between “rapid and bold policy action in time-sensitive contexts and inclusive governance processes”), (2) ‘sustainability-recognition’ tensions (“between sustainability performance and recognition of diverse value systems and rights”), and (3) ‘sustainability-equity’ tension (between “achieving sustainability performance and equitable distribution of benefits and burdens”). For each category, they elaborate on a considerable number of dilemmas, competing priorities and potential outcomes. Taking these transition tensions as a starting point, makes us wonder about the complexity of tensions and dilemmas faced by the approaches that we have mapped, and the specific urban initiatives in which they are applied.

Last but not least, there is also another paradox and tension that is inherent to transitions, that is particularly complicated. Transition theory teaches us that transformative change often starts small, in spaces where innovation and alternatives can develop (i.e. “niches”) and deviate from the dominant status quo. These spaces are

- by definition - limited in the extent to which they can be inclusive from the start. In many cases, approaches that are outside the mainstream, sometimes even marginalised, cannot reach the majority of people exactly because there are systemic obstacles to their equitable expansion. As a result, both access to such approaches and their impact are limited. As such, when we evaluate the approaches in terms of e.g. how inclusive they are, or how much transformative potential they have, we need to take into account this inherent inclusion-exclusion paradox of radical change, deviation and marginalisation.

3.3. Sustainable & Just Cities by & for whom? Multi-Actor Perspective

Taking a *political* transition perspective on sustainable and just cities means an explicit attention for power relations, which in turn raises the question of who is (not) involved in and affected by (un)sustainable and (in)just cities. The multi-actor perspective (Avelino & Wittmayer 2016, 2019) is a conceptual model to analyse (shifting) power relations between the role of different actors and the institutional logics within processes of change.

This perspective builds on the 'Welfare Mix' model (Evers and Laville 2004, Pestoff 1992) and distinguishes different institutional logics along three axes: 1) informal – formal, 2) for profit – non-profit and 3) public – private. The state is characterized as non-profit, formal, and public; the market as also formal, but private, and for-profit; and the community as private, informal, and non-profit. Finally, the 'hybrid sphere' is conceptualized as an intermediary sector overlapping the other three. This sphere includes non-profit organizations as well as intermediary organizations (e.g. social enterprises or cooperatives) that cross institutional boundaries (between profit and non-profit, private and public, formal, and informal). While sectors in themselves can be and often are framed as 'actors', they can also be approached as 'institutional logics' or 'frames of reference' within which collective or individual actors operate and with which they interact. These logics are not fixed, rather the boundaries between them are contested, blurred, shifting and permeable.

The multi-actor perspective unpacks different levels of actor aggregation within the broader institutional logics. Each institutional logic can also be viewed as a site of struggle and/or cooperation among different individual actors (e.g. the state as interactions of politicians, civil servants and voters; the market as interactions of consumers and producers). In each institutional logic, individual actors tend to be constructed in a different manner, ranging from 'resident' or 'neighbour' to 'citizen' or 'consumer'. These constitute the roles of individual actors. A single individual can be referred to in different roles in different institutional logics, e.g. a policy-maker is also

a citizen, neighbor, consumer and possibly a volunteer in their free time (see Figure 4 below).

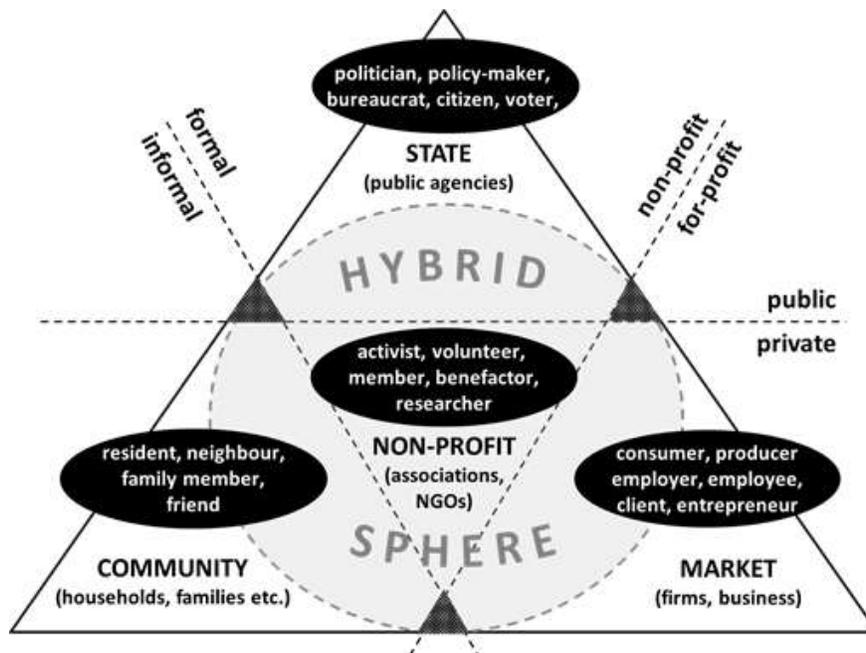


Figure 4: Multi-actor Perspective (adapted from: Avelino & Wittmayer 2016)

Obviously, and in contrast to the figure above, the dimensions of different institutional logics are not neat and equal, perfectly aligned and balanced triangles. Instead, there is constant struggle and contestation over how these institutional logics should be named, shaped and positioned towards each other. The multi-actor perspective specifically aims to identify and explore how power relations change, both across institutional logics and within institutional logics between different organizational and individual roles.

From the perspective of the MaP, institutions or regimes turn problematic – and thus needing transformative change – to the extent that they represent undesirable power relations between actors, e.g. power relations that are unequal, oppressive or unproductive. The object of transformative change then becomes those problematic power relations: they are that which is to be challenged, altered and/or replaced. Here the different levels of aggregation in the MaP-perspective also become particularly pertinent. Power relations can change at the macro level of institutional logics i.e. the relations between state, market, non-profit and community. At the same time, power relations can also change at the micro-level, between different actor roles within and across those institutional logics, e.g. between consumers and producers, between citizens and politicians, between men and women. This then raises the question to what extent power relations can be transformed at the micro-level, without them being transformed at the macro-level – or vice versa. Based on the MaP-perspective,

we propose to explore transformative change both at the macro-level and the micro-level, both having transformative potential in their own right, and then make the interdependencies between these levels a matter for empirical analysis.



Figure 5: Multi-Actor Perspective on Power Relations - Macro-level (left) and Micro-level (right)

Understanding the different logics and roles of multiple actors in these urban contexts and domains, and how the power relations between these actors and logics are shifting, is crucial for UrbanA's ambition to link issues of ecological sustainability to social (in)justice. Through its attention to power relations, the multi-actor perspective serves to specify urban sustainability transitions as not only socio-technical but also socio-political processes. A more explicit socio-political perspective invites us to view changing actor relations and actor roles as being at the center of urban development.

Applying this multi-actor perspective to reflect on approaches to sustainable and just cities, has the following implications:

- We can use the multi-actor perspective to compare/analyse approaches in terms of:
 - characterising the approaches themselves in terms of their own primary institutional logic (e.g. state driven, market driven, community driven, non-profit or hybrid)
 - the different individual/organisational roles that are involved in this approach (which likely cross all institutional logics)
 - assessing how the approaches (may) affect micro- and macro-level power relations

- Just and sustainable cities for whom? Looking from a multi-actor perspective emphasizes that the tensions don't only exist between justice and sustainability, or between different kinds of justice, but also between (in)justices for different groups of people and the different roles they play in different institutional contexts. What may seem just for all recognised citizens (state-logic), may not turn out just for all consumers (market logic) or neighbours/ family members (community logic), or for non-recognised citizens.
- Each city has a different institutional fabric and context. Approaches are part of a broader institutional context characterized by a specific mix of institutional logics and power dynamics. The effect of the approaches on justice and sustainability is thus highly dependent on the existing power relations within those cities and the wider institutional environment. As such, one cannot too easily generalise the extent to which one approach will (not) contribute to (in)justice, as this is highly dependent on e.g. the welfare provisions available in the urban/national context
- Approaches may have consequences across different institutional logics, including (intended or unintended) mechanisms of exclusion and injustice. For instance, a policy intervention may have unintended and perverse effects in the market or community context, or vice versa. Especially when assessing which approaches can be transferred, replicated, scaled, mainstreamed and diffused, it is important to be aware that each institutional logic comes with its own processes of institutionalization, e.g. standardization and bureaucratization (state logic), commercialization and commodification (market logic), socialization and normalization (community logic). Each of these processes comes with (intended and unintended) mechanisms of inclusion and exclusion. The question is who is being included and who is being excluded, in which ways and according to which logic (commercial, bureaucratic, social, etc.).
- Although each urban context is unique, there is a general trend of neo-liberalisation across European cities, in which there is a relative dominance of public-private partnerships and a formal state and market logic (Avelino & Wittmayer 2016). As such it becomes pertinent to reflect on how approaches may affect these existing power dynamics. However, there is a difference between micro-level and macro-level power relations, which has implications for judging the (potential) (in)justice contributions of approaches. An approach can do something to improve power relations at the micro-level within one particular logic and context, without necessarily challenging or improving macro-power relations. In that case, it still has transformative potential and can still contribute to tackling (in)justice within a specific context, albeit limited.

3.4. Urban Transitions and Translocal Diffusion of Urban Initiatives

UrbanA starts from the premise that cities play a key role in responding to the challenges of our time. Cities, or the urban, is a scale where multiple political, cultural, environmental and economic challenges are increasingly being felt and become tangible in people's lives. Exacerbated by urbanisation, it is also the scale where people undertake initiatives and interventions to shape their living environment and counteract certain (un)desired developments and practices. However, defining what is and isn't urban is often subjective. While formal administrative boundaries of cities often have historical or political meanings, what actually is perceived and consists as the city has shifting meanings (e.g. a small 'city' might also be seen as a 'town' or 'village') and demarcations (e.g. what administratively could be in the city limits might also be perceived as a peri-urban area). However, the urban is often used in contrast to the rural, which generally indicates features such as a low-population count, low levels of infrastructure, low density of buildings and an agricultural-based area. Taking these contestations into account, the UrbanA database is explicitly focused on approaches that have an explicit relevance for sustainability and justice in urban and peri-urban contexts. Although the UrbanA project is explicitly focused on European cities, we do take an explicit 'translocal' perspective.

The notion of 'translocal' refers the connectedness between different localities (Greiner and Sakdapolrak 2013), not only across different spatial scales (e.g. national, regional, global) but also between different kinds of places (urban-rural, online-offline, present-future). This translocal perspective also has implications for the way in which the transformative potential of urban initiatives is assessed. Transition research includes many frameworks and typologies to assess how the transformative potential of innovation is increased, through e.g. 'scaling out, scaling up, scaling deep' (Moore et al. 2015), 'deepening, broadening, scaling-up' (VandenBosch, 2010), 'replicating, scaling-up, translating' (Smith 2007, Seyfang&Haxeltine 2012), 'shielding, nurturing, empowering' (Smith&Raven 2012), or 'replicating, partnering, upscaling, instrumentalising, embedding' (Gorissen et al. 2018). Recently, there has been increasing interest in the role of transnational connections (e.g. Coenen & Truffer 2012, Feola & Nunes 2014, Feola & Him 2016) and in the so-called 'translocal diffusion' of innovation (Loorbach et al. 2020). While many innovation initiatives are locally rooted, they are also translocally connected in regional, national and global networks, and it is this particular combination of local embeddedness and transnational connectedness that empowers actors to "persist in challenging, altering and replacing dominant institutions (...) despite of the unfavourable power dynamics" that they face in their direct institutional context" (Avelino et al. 2019b:18).

Furthermore, a translocal perspective also means not studying cities in isolation but rather their translocal connections, with other cities, with other levels of governance

and identity, and with rural areas. An important implication thereof is that any assessment of how '(in)just' or '(un)sustainable' a city is, should never solely refer to what happens within the boundaries of the city, but also explore (in)just and (un)sustainable consequences (whether intended or unintended) for other localities. This means that we take the connections between different localities as a starting point in UrbanA. For example, we take into account the translocal connections between different cities, regions and countries, but also between the local and global scale, between urban and rural, between the digital world and the offline world, between formal institutions and the grassroots level. Future work in UrbanA will take a deeper dive into how to increase the transformative potential of urban initiatives translocally. Especially WP5 aims to support processes and develop materials through which actors can be inspired and benefit from lessons learned in governance interventions developed for specific urban contexts elsewhere.

Applying this translocal perspective to analyse approaches to sustainable and just cities, has the following implications:

- Societal challenges are concentrated in urban contexts, the densification of which provides fruitful breeding ground for alternative approaches while at the same time also densifying the institutional barriers to change and innovation.
- Understanding the transformative potential of approaches to sustainable and just cities requires us to acknowledge how they are locally rooted in specific local instances as well as how they are translocally connected in translocal networks.

3.5. Transition questions/ framework

Based on chapter 3 we formulate the following 4 questions that will inform our analysis in chapter 4 and chapter 5 on 1) the politics and tensions of sustainability, justice and the urban (3.1, 3.2 & 3.4), sustainability, justice and the urban in transitions (3.2) and sustainability, justice and the urban from a multi-actor perspective (3.3)

- What is the (trans)local emergence and diffusion of approaches in and across urban contexts? (5.1)
- How to link or deal with the tension between sustainability and justice? (5.2)
- What role do different approaches play in different phases and dimensions of ongoing transitions towards just and sustainable cities? (5.3)
- What are the dominant institutional logics of the selected approaches and which logics are they challenging / trying to change? (5.4)

CHAPTER 4: INSIGHTS FROM WHAT CAME BEFORE THE WIKI

The development of the Wiki on Sustainable Just Cities has been designed as a mapping process in four phases. In the first phase we systematically scanned the CORDIS database and selected a long list of 427 projects relevant to sustainability and justice in cities. Next we quick-scanned these projects to bring the number down to a short-list of 125 projects and 180 approaches. These approaches were then studied through desk research, which resulted in a hot-list of approximately 40 (clusters of) approaches. In this chapter we reflect on this first phase and we present some insights of all the included projects (n=350) and approaches (n=194) in terms of sustainable and/or just cities. See chapter 2.2 for an overview of the mapping process and also deliverable 3.1 and 3.2 for an elaborate explanation of this process.

During the mapping first phase we explicitly focused on the intersection between a) sustainability, b) justice and c) the urban scale. The researchers of the consortium scored the 450+ projects (rather subjectively) on these three categories with a scale of 4 levels: 3) to a great extent, 2) some extent, 1) very little extent and 0) not at all. This was translated in a so-called Sustainability-Justice-Urban-score (SJU-score) of 0-9, which captured the total extent to which sustainability, justice and/or the urban scale was addressed (for more information see UrbanA Deliverable 3.2). Especially the high scores (7-9) shed light on the level in which the intersection between the three main 'SJU-dimensions' was addressed within a certain project. In this chapter we will reflect on the included, and some excluded, projects and approaches, and their intersections on sustainability, justice and the urban scale. All the tables can be found in the appendix.

4.1 Basic characteristics of the included projects and approaches

If we look at the funding scheme of the projects, the Framework Programme (FP)-projects of the EU are most dominant in the projects analyzed (224 out of 350). For example, 209 of all 350 projects are funded under the 7th Framework Programme (FP7) for EU research (59,7%). Next to the FP's, the Horizon2020 funding scheme accounts for 15,4% of all entries in the project-database. If we zoom in on all the funding schemes it is striking that especially the FP7-Environment scheme scores relatively high with 18,6% of all the included projects. The second largest funding scheme is FP7-Socio-economic Sciences and Humanities with 16,9%. The gap to the third highest scoring scheme is quite apparent: FP7-PEOPLE and FP7-TRANSPORT both are responsible for 4% of the included projects (both 14 included projects per scheme). This could imply that projects that intersect on two or more of the SJU-dimensions are mainly in two schemes: one with a focus on environmental issues and one with a focus on social issues. It seems that the focus on sustainability, justice and/or the intersection is a marginal phenomenon in the other funding schemes.

It is interesting to note that relatively older FP's and funding schemes score very low, which would imply that the SJU-intersection is rather novel, or at least the explicit discourses therein. Only 22 of the selected projects are older than the year 2008. The peak of projects is in 2012 and 2013 (with each 50 included projects). However, it is doubtful if any conclusions can be connected to these numbers since the primary source used - the CORDIS database - is rather flawed in several ways. For example, the database includes very basic descriptions of relatively old projects as opposed to very elaborate summaries and documents from newer projects. Also, while closed projects have a lot of data in the database, more recent projects only consist of a basic description.

The included projects are predominantly social science projects (see table 8 in the appendix). When we look at the disciplinary perspective of the selected projects it seems that project consortia that have a rather multi-, inter- and/or transdisciplinary focus more on the SJU-intersections (18,6%). Of course, this is rather obvious since the SJU-intersections require such a multi-faceted approach. This also seems to be the case for consortia that have an explicit urban focus (urban studies, urban planning and governance) with 12,6%. The third disciplinary perspective that focuses on SJU-intersections is Economics and Business studies with 10.1%. Rather ironically, an explicit disciplinary focus on sustainable development and consumption scores the lowest (3,5%).

When we look at the type of the 194 identified approaches that have been included in the mapping process, it is interesting to reflect on a) the type of approaches and b) the sector/domain of the approaches. We categorized these in an inductive manner. The top 5 types consist of policy interventions (26%), research methods (21%), policy instruments (16%), participatory methods (14,9%) and technological interventions (12,4%). It is striking that - except for the technological interventions - these types of approaches indirectly address (un)sustainability or (in)justice in an (peri)urban setting, since it's mostly about methods and forms of collaborations. This also links with the need for public interventions and a democratization of these issues with participatory processes (see also chapter 3.3 and 3.4). This is underlined when we look at the sector or domains foci of the approaches. There is a strong focus on urban governance and planning with 18,2% of all included approaches. Functional domains like energy (10%), food (8,8%), and mobility (8,2%) also score relatively high.

4.2 Reflections on SJU-intersections within the selected projects

When we specifically look at the projects, relatively more projects have an explicit focus on sustainability than justice (resp. 200 vs 132). In total 32 of the 350 projects have

an explicit focus on all three key SJU-dimensions (9,1%). Projects with a high SJU-score (7 or higher) account for 52,3%. Also, in the approaches the explicit focus on sustainability is higher than on justice (resp. 132 vs 75). Next to this, 20 of the 194 approaches have an explicit focus on all three key themes (10,3%). Approaches with a high SJU-score (7 or higher) account for 63.9%.

Based on these results, there is a ranking in the three main foci. Both in the included projects and approaches there is a relatively stronger focus on sustainability in our database and the used sources. Also, the urban focus is stronger than the focus on justice. The projects that score high on sustainability have a strong focus on e.g. vertical farming, bio-waste, transport planning, biogas, food waste, hydrogen fueling infrastructure, sanitation. Often the projects are focused on classical socio-technical systems as mobility, energy, agriculture, etc. The projects that score high on justice, have a strong focus on e.g. human rights, spatial justice, gender equality, tolerance and equal respect, inclusion of migrants, health inequalities, poverty reductions, homelessness, etc. Several projects focus on the topic of land use and the topic of mobility, especially on cycling. Often these justice-projects were not limited and/or focused on the urban scale and/or Europe level.

Examples of projects included in the database with a SJU-score of 8 or 9 are for instance the following projects:

- EdiCiNet which stands for Edible Cities Network - Integrating Edible City Solutions for social resilient and sustainable productive cities (H2020 funded). It is focused on launching a fully open and participatory network of cities, empowering their inhabitants by a common methodology aimed at creating more sustainable, liveable and healthier cities. The project states that: “we include the whole chain of urban food production, distribution and utilisation for inclusive urban regeneration and address societal challenges such as mass urbanisation, social inequality and climate change and resource protection in cities.”
- The GREENLULUS-project, which started in 2016 and stands for Green Locally Unwanted Land Uses (H2020 funded). The project analyzes the conditions under which urban greening projects in distressed neighborhoods redistribute access of environmental amenities to historically marginalized groups. It is aimed at analyzing whether greening projects tend to increase environmental inequalities in 40 cities in the US and Europe and under which conditions such projects can address equity concerns. Developed outcomes are e.g. a Green Trajectories policy book and a Fair Urban Greening index.
- A third example is the PRIMUS-project, which stands for Policies and Research for an Integrated Management of Urban Sustainability (FP7-Environment funded). From 2009-2012 the coordination project was aimed at bridging the gap between research on the European level on one hand, and policymaking

on the local level on the other hand. The main topic of the project was 'sustainable urban management' and how the various policy areas of urban development (energy/water/waste, transport, planning and design, social inclusion, etc.) were integrated. The project was built around a series of different events - so-called Connection Fora, Linkage Fora and Implementation Fora - with participants from local governments, researchers, and national ministries and agencies. The focus of these events was on identifying and sharing indicators and information systems, efficient and effective policy processes, innovative public participation, and research-based tools for sustainable urban management by some 100 local governments throughout Europe.

Based on the mapping of the projects we identified the approaches, which found their way into the Wiki on Sustainable Just Cities. For these approaches, we also looked at the transformative potential, i.e. the extent to which the approach seems (to strive) to instigate a more fundamental systemic change. 97 out of 194 approaches are aimed at transformative change within certain societal (sub)systems. Additionally, 52 approaches are 'somewhat' focused on transformative change. Often, the systemic change that is addressed is related to the energy transition. Secondly, transforming the food and mobility system are quite popular. Most of the approaches are in some way or another aimed at addressing the issue of climate change, a logical consequence of the selection criteria (i.e. a strong focus on sustainability). Because of these criteria, there is significantly less focus on transforming systems that are not directly related to climate change, e.g. transforming the housing and public health system. Interestingly, quite some approaches are aimed at addressing democratic change, e.g. in promoting citizen participation in research, policy, and planning.

Examples of approaches included in the database with a SJU-score of 8 or 9 are for instance 'community-based urban farms and gardens' which have been instigated and researched in many European projects and different cities. For example, it is stated that turning unused urban land into productive community gardens for public use can have a positive impact on locals, contributing to improved mental and physical health through exposure to nature and healthy sources of food and a community feeling. But also participatory processes and approaches with a specific focus on involving (local) communities, such as 'community building design', 'community arena' or 'community-driven urban transformation' where e.g. local citizens, local entrepreneurs, knowledge partners and local authorities are working together at improving their living conditions. Another example are alternative evaluation models and indicators that focus on integrating different e.g. economic, ecologic, and social values, such as 'Fair Urban Greening Index', 'value-based indicators', 'alternative economic indicators' and 'joint economic and sustainable indicator'. Such approaches have been merged into the 'clusters of approaches' which have been further studied and included in the Wiki on Just and Sustainable Cities (see

table 2 in paragraph 2.3). In the next chapter we will reflect on the insights of these clusters. For a complete overview of the included projects and approaches we refer to the appendixes of UrbanA Deliverable 3.2.

4.3 Reflections on excluded projects

The focus on the intersections between the dimensions of justice, sustainability and the urban scale, has also led to certain blind spots in our selection of projects and approaches. The outliers in the spectrum of sustainability and justice are often excluded in the database, e.g. projects that only have a focus on sustainability issues, but no attention to issues of justice whatsoever, or the other way around. This, however, does not mean that such projects harbor some drivers and solutions that can contribute to more (un)just systems (e.g. a novel way of generating large amounts of energy that could benefit all). In the first mapping phase, a total of 95 projects were excluded that had a focus on sustainability categorised as 'to a great extent'. The selection of approaches also led to the exclusion of certain projects that did (also) have a focus on the intersection of justice and sustainability. For instance, no approaches were distilled out of the following three projects:

- GRAND CITIES: Green and Diverse Cities. The social impact of urban policies for sustainability in comparative perspective;
- DESAFIO: Democratisation of Water and Sanitation Governance by Means of Socio-Technical Innovation;
- OASIS: Openness, Adaptation, Sensitisation, Innovation and Social ties: Design and transformation of local urban areas adapted to climate change, working jointly with users.

Outliers on the (in)justice dimension led to excluding 52 projects in the database that scored 'to a great extent' on (in)justice, but scored low on sustainability and the urban scale. Also in this case, projects were excluded in moving from projects to approaches that were aimed at the intersection of justice and sustainability. For instance, no approaches were distilled out of the following three projects:

- SforAge: Social Innovation on active and healthy ageing for sustainable economic growth;
- EJOLT (Environmental Justice Organizations, Liabilities and Trade);
- ESIE: Egalitarian and Socially Inclusive Europe.

Excluding such projects had different motivations, e.g. some projects were mainly conceptual or abstract research projects and had no particular focus on specific approaches that could be distilled. Another reason for excluding some projects was that some had no focus on Europe and/or the urban scale. However, it could also mean that we missed out on some relevant projects - and thus approaches - in our mapping exercise, because of the necessity to bring the amount of projects to a feasible and

workable amount. The database is not fully exhaustive in this sense, and thus it definitely leaves room for the co-creation of knowledge as to further complement it with other approaches and examples within the Wiki on Just and Sustainable Cities.

4.4 Reflections on first mapping phases and SJU-intersections

The database developed within UrbanA incorporates a broad scope in projects and approaches at the intersection of sustainability, justice and the urban scale. With 400+ projects and almost 200 distilled approaches - both made insightful through desk research and interviews - the database builds a solid foundation for the Wiki on Sustainable and Just Cities.

The intersection of sustainability, justice and the urban scale is - quite logically - a (research) field in which practitioners and professionals are mainly participating in multi-, inter- and/or transdisciplinary projects and approaches. It is therefore interesting to reflect on the EU funding schemes as two of these schemes are very dominant in funding research on this intersection, while this intersection is a marginal phenomenon in other funding schemes. In regard to the intersection between sustainability, justice and the urban scale, the included projects and approaches score relatively higher on the sustainability dimension and the urban scale. The issue of justice is less apparent. Topic-wise the content of the projects and approaches is often aimed at addressing the issue of climate change in functional domains like the energy, food and mobility system. Interestingly, there is also a strong focus on participatory methods and governance approaches to boost (local) democratic opportunities and capacities. Apparently, democratization is seen as an important underpinning or building block of sustainable and just cities.

This focus is also apparent in the transformative potential of the selected approaches since many are addressing (local) democratic change. Although quite a lot of approaches are aimed at transforming something in one way or the other, it often remains implicit what and how needs to change to make cities more sustainable and/or just (also see chapter 5.3). If we relate it to chapter 3 and the notion of transitions, i.e. large-scale and long-term fundamental systemic transformation then the vast majority of the projects and approaches do not explicitly address this. However, there seems to be an increasing attention for transitions and in a broader sense social innovation in current and upcoming EU funding schemes (mainly H2020-schemes), which might be an interesting way to opt for integrated perspectives on sustainability, justice and urban issues. This is an important aspect to address in order to avoid that projects become too solely focused on e.g. sustainability, or that sustainability and justice remain separate fields of interest. It is necessary to ask for integrated perspectives not only in terms of having different disciplinary perspectives, but also different 'directionalities'/ normative orientations (i.e. sustainability and

justice). And to analyse these in specific places, e.g. at the urban scale but also in rural sites and the translocal connections between both.

The database of approaches in the Wiki on Sustainable Just Cities can be considered as a first step in creating a database for approaches which address issues of (un)sustainable and (in)just cities. However, the database is not extensive and comprehensive since we also excluded some quite interesting projects and approaches. Inclusion inherently leads to exclusion, and the developed database is not an exception to this paradoxical notion. There is a possibility that we reproduced the blind spot of research that is carried out on either the topic of sustainability *or* justice. We mainly selected the projects and approaches that address both these dimensions (to a certain extent). Perhaps the main challenge is to open up both the outliers of the spectrum, rather than searching for win-win approaches. E.g. a justice movement which is focused on human rights, but not on ecological aspects. Or an energy solution which is primarily debated as a technological solution, but not as a possible driver for a just future. That's why it is important to note that we developed the Wiki on Sustainable Just Cities as an open source and open database that people can contribute to, so people can add other interesting approaches to it that maybe shed light on these blind spots.

CHAPTER 5: INSIGHTS ON APPROACHES TO JUST SUSTAINABLE CITIES

As described in the introduction of chapter 3 we can broadly characterize sustainable and just cities as cities that (strive to) meet the following four conditions: 1) Improving the quality of life and well-being; 2) Meeting the needs of both present and future generations; 3) Enabling justice and equity; 4) Living within ecosystem limits (Castán Broto & Westman, 2016: 637-638). In this chapter we present the key insights on tackling injustice and unsustainability in cities that we distilled inductively from the mapping process. To do this we follow the guiding questions as formulated in chapter 3:

- What is the (trans)local emergence and diffusion of approaches in and across urban contexts? (5.1)
- How to link or deal with the tensions between sustainability and justice? (5.2)
- What role do different approaches play in different phases and dimensions of ongoing transitions towards just and sustainable cities? (5.3)
- What are the dominant institutional logics of the selected approaches and which logics are they challenging / trying to change? (5.4)

5.1 Approaches in and across the urban context

What is the (trans)local emergence and diffusion of approaches in and across urban contexts?

Although we explicitly selected projects that were especially relevant for the urban context, the mapping of approaches affirms that cities are a fruitful context to think of and work on approaches towards justice and sustainability. This relation is two-sided. On the one hand, urban environments harbour the conditions necessary for approaches to develop and diffuse. The concentration of a diversity of people and resources (like ideas, money, infrastructure, social networks etc.) make cities a fertile ground for approaches to emerge. However, for some approaches the concentration of these resources might be a barrier. In particular, when this concentration of resources is accompanied with high land prices and tight regulations (e.g. zoning-regulations) which might impede approaches to connect to urban contexts. As has been the case for ecovillages (Van Schyndel Kasper, 2008). On the other hand, the mapped approaches are suitable for tackling the specific sustainability challenges of cities. Like providing access to safe water, clean air, healthy food, affordable transport and the right to (social) housing. The underlying drivers of (in)justice are intensified by rapid processes of urbanization and are embedded in the current modes of governance and existing social inequalities (cf. Schipper et al. 2019). This does not mean that approaches are exclusively relevant for cities or are inherently urban. The mapped approaches which were developed in the urban context might as well be

relevant for peri-urban and rural areas. Additionally, approaches that are not specifically urban like [ecovillages](#), [alternative indicators](#) or general approaches that provide analytical frameworks to evaluate initiatives (e.g. [impact assessment frameworks](#)) might also harbor relevant insights for tackling specific urban challenges.

While most approaches recognise the primacy of the urban level, many do acknowledge the multi-sectoral and multi-scalar nature of the challenges at hand. Since the starting point of our mapping process was the pool of EU-funded projects, most of our approaches focus on the European context or a specific urban area in Europe, but many of these approaches are part of global networks and movements (e.g. [community gardens](#), [fablabs](#), [social food movements](#)). Additionally, during the first Arena Event one of the online participants in the roundtable session on '[regeneration of disused urban land](#)', pointed out that the approach to urban regeneration of the government in her home-country in Eastern Europe differs fundamentally from how cultural heritage in North-Western European cities is addressed and valued (see textbox 1). That is to say, also within the European context there are vast diversities within and between countries and cities that shape the specific manifestations of an approach.

Textbox 1: Regeneration of disused urban land - Wiki insight based on Arena Event #1

“Specific solutions or ways of regenerating disused urban land may often not be transferable across contexts. This seems to be especially important across Western and Eastern European contexts where a perceived time lag between solutions becomes apparent. A participant of arena#1 in Rotterdam mentioned that city developments that happened in Western Europe are now happening delayed in Eastern Europe with officials making the same mistakes. As an example she mentioned a potential construction bubble in Croatia that existed in Western Europe 10-30 years ago, but has reached Croatia delayed because of the war in the 90s. Learning across different contexts seems to be an additional challenge here. Furthermore, bottom-up movements seem to rely on some sort of institutional support which highlights the importance of the local government in those processes” ([source: regeneration of disused urban land](#)).

The differences between places and contexts, and the translocal, adaptive and multi-scalar nature of approaches underline the importance of shared monitoring frameworks by cities for facilitating learning across contexts. In this sense, the emergence of city networks for learning is an approach to work on just and sustainable cities in itself. The same goes for specific research methods and approaches (for example [pathways and scenario-building](#)). Many of the approaches in the Wiki are part of translocal networks, examples include:

- The [International Co-operative Alliance](#), connecting Co-living, co-housing & intentional communities as well as several other initiatives around [Sharing and cooperatives for urban commons](#)
- The [International Observatory of Participatory Democracy \(OIDP\)](#) connects communities and municipalities working on [Democratic innovation through recognition](#), [Governance and participation processes](#) and [Participatory budgeting](#)
- [Fablabs](#) network - connecting [Digital fabrication](#) workshops across the world
- [Transition Network](#) - connection [Transition towns](#) initiatives across the world
- [Global Ecovillage Network](#) - network of [Ecovillages](#)
- [Shareable, incl. Sharing Cities](#) - connecting and empowering urban initiatives aiming around [Sharing and cooperatives for urban commons](#)
- Networks like [Timebanking](#) and the European Federation of Ethical and Alternative Banks ([FEBEA](#)) that experiments with alternative Financial practices and instruments such as complementary currencies and cooperative ethical banks.

Highlighting the existence of these networks is important to acknowledge the transformative potential of these approaches. In a study of how four of the abovementioned networks (Participatory Budgeting, Impact Hub, Sharing Cities and Transition Towns) develop counter-narratives of urban economic development, Longhurst et al. (2016:5), it is argued that “to label these as only ‘experiments’ belies the fact that they are already entangled and reconfiguring the socio-material fabric of the city: that they are having real material consequences, both within their immediate localities and beyond” and that “the acknowledgement of their existence therefore is not only to open up the possibility space of what urban transformation might entail, but is to also challenge dominant imaginaries of urban economies, so we can begin to imagine the city as a site of multiple, co-existing and overlapping diverse economies”.

During the parallel session on learning during the first Arena Event the participants concluded that we should be aware of oversimplifying translation processes from one city to another, since success stories in one context may not have similar positive results or effects in another. In the UrbanA project this question of learning across contexts will be taken up in WP5. This does not mean that the lessons learnt presented in this deliverable only apply to this set of mapped approaches. The transitions perspective implies that the lessons learnt and the questions we pose are relevant for anyone who wants to work on and think of transformation.

5.2 Interlinkages between sustainability and justice

How to link or deal with the tensions between sustainability and justice?

We first reflect on the notions of sustainability and justice, and how these are addressed by the approaches in the database. Subsequently we reflect on the interlinkages between the two.

Sustainability

A number of approaches have an explicit focus on environmental benefits and/or aim to have positive ecological impacts. Examples are Nature-Based Solutions (NBS) which have the potential to contribute to climate and water resilience by responding to flooding, heat stress, drought, poor air quality, biodiversity, the carbon cycle, soil consumption and use of natural resources in urban environments (see text box 2). A more specific example is urban farming that combines closed-loop systems for sustainable water, nutrients, and waste management in order to create more resilient cities. A related approach, [short food supply chains](#), address sustainability through the reduction of distance travelled for food, water use and multifunctional land use. Participants of the first ArenA event in Rotterdam also highlighted the added value of increased connection of consumers to their food and increased transparency in the production of their food. Other approaches, like [energy and mobility solutions](#), consider sustainability issues from the perspective of smart and sustainable green growth and improved efficiency. Lifestyle and changing behaviour is another angle to work on sustainability. For example, [social food movements](#) address behaviour by focusing on eating habits as a way to reduce one's ecological footprint: "Changing one's habits, taking up specific food choices or questioning certain food practices can be aimed at contributing to a more ecologically sustainable environment (and food system). For example, by raising awareness of the variety of animal and plant breeds (biodiversity)". Sometimes this is done from a moral and/or political perspective. Similarly, [short food supply chains](#) put their focus on the vulnerability of the current food systems, by making visible the carbon footprint of conventional food chains, counters trends of food commodification and detachment and the related inequalities. These include the existence of so-called 'food deserts' and socio-economic determinants of unhealthy diets. Both for social food movements and (some) NBS, health is an important dimension as well. With regards to [NBS](#), the focus is mainly on the (mental) health impact of urban environments.

Textbox 2: Relation to UrbanA themes: Cities, sustainability, and justice - Nature-based solutions

"All approaches have a very high urban focus, but the level to which justice is addressed varies greatly. Most research projects are concerned with the direct implementation of NBS or the development of tools to assist in the process. While

some approaches attempt to create citizen driven, bottom up processes that seek to include the highest level of community engagement in the process, some also aim at NBS providing improved economic opportunities for disadvantaged communities. GREENLULUS stands out as a unique project that seeks to understand the impact of NBS and related urban processes on certain communities, as creating or exacerbating inequalities in the form of green gentrification.

Sustainability issues addressed by a high number of approaches include climate and water resilience responding to flooding, heat stress, drought, poor air quality, biodiversity, the carbon cycle, soil consumption and use of natural resources in urban environments, citizen involvement, education and empowerment. Regarding the linkage of sustainability and justice, this approach has an overall high level, but from different aspects. On the one hand, NBS aim at increasing availability of green/blue spaces which are beneficial to all people, some address explicitly disadvantaged areas, as to mend past injustices in underprivileged neighborhoods, and some aim specifically at including/addressing the needs of vulnerable groups (like children, the elderly). However, on the other hand, counter-effects of NBS (like gentrification) are only now beginning to be studied as drivers of injustice, and wider issues of uneven patterns of participation in public debate/workshops/consultations continue to persist and express also in NBS projects." (Source: [Nature-Based Solutions](#)).

On the other hand, as the database shows, approaches that explicitly aim to have positive environmental impacts might have unexpected negative consequences. On the micro level an example is the regeneration of brownfield sites that lead to the intensification of recreational use (see textbox 2). Also, approaches with a one-sided focus on centralized large-scale technocratic solutions, can unintentionally reproduce environmentally extractive systems of economic growth, which can lead to negative environmental consequences on a macro level.

For other approaches, the environmental sustainability impacts or benefits are less apparent or indirect (e.g. [culture for empowerment](#)). This applies to [co-learning and knowledge brokerage](#) in which sustainability might be one of the (many) goals or orientations, as well as to the process or [crowdsourcing](#) that might contribute to the sustainability of a project. The wiki-page of [sharing and cooperatives for the commons](#) sums up how approaches that don't have environmental sustainability as an explicit aim, might contribute to it indirectly. As the wiki-page reads:

"Socio-environmental sustainability is not necessarily central to the goals of commoning/cooperative projects, but sustainability issues have increasingly become a central preoccupation of citizens and movements, thus are being increasingly reflected also in such projects. The community-supported agriculture initiative studied under INCONTEXT project, for example, has a strong sustainability perspective as it promotes organic food of proximity,

reducing the use of agrochemicals and avoiding embedded energy consumption (transportation). Many of the sharing initiatives directly address issues of sustainability, as they have to do with the reduction of waste (through recycling/repairing/reusing materials, avoiding food waste) or the production of renewable/cleaner energy (through cooperatives), or by optimising the use of space and resources (in co-housing or co-working arrangements). Moreover, in places of sharing and conviviality, it is also the case that ideas (often about sustainability) circulate faster and with more potential for innovation, which in turn can enable sustainable transformations. The idea of sharing can indeed link sustainability and justice as it can enable redistribution of scarce resources in innovative ways”.

This quote shows that positive environmental impacts might be achieved without it being the main focus of an approach. For example, because of the values of the people involved or the principles that underlie the alternative ways of organizing, such as proximity, reuse and recycling. The same goes for [Right to Housing initiatives](#) that do not necessarily seek to achieve environmental sustainability as the end goal, but, in the spirit of and by challenging the neoliberal economy, this approach does advocate for the reuse (and when needed the renovation) of existing vacant spaces.

Lastly, none of the approaches in the database seem to pay explicit attention to the intergenerational dimension of environmental sustainability. Also none of the approaches seem to explicitly take into account the different cultural or religious notions on sustainability. Although some approaches do pay attention to cultural differences in the context of co-creation and governance. Reiterating what we've written in chapter 3, the question 'injustice for whom?' does not only relate to displaced people in a specific urban neighbourhood, but also includes farmers in the hinterland, future generations, the non-human animal world. This seems to be a gap in the approaches that are currently in the Wiki on Sustainable Just Cities. The food-related approaches do seem to be most sensitive to these dimensions of sustainability.

Textbox 3: Relation to UrbanA themes: Cities, sustainability, and justice - regeneration of disused urban land

(...) Regarding sustainability and the remediation of brownfield sites that are contaminated/heavily damaged, outcomes may not necessarily be ecologically sustainable if the remediation is aimed at intensive human recreational use such as new housing developments or business parks. While tackling urban sprawl to ensure a more sustainable built environment, opportunities for new strategies now exist; encouraging urban gardening, community gardens and urban farming, areas for renewable energy generation (non-food biomass production), mitigation of heat island effects and the use of tree planting to improve urban air quality (filtering and retaining air particles and contaminants generated by traffic and industry) while

also providing habitat for migrating birds and other species to increase biodiversity. The ProGReg project works on soil regeneration, as one approach to sustainability, seeking to identify and improve areas in cities through NBS including: biodiversity, the carbon cycle, soil consumption and use of natural resources in urban environments, citizen involvement, education and empowerment. Citizen science and active citizen participation also include sustainable education and nature appreciation. Regeneration of these spaces does not necessarily increase justice, since it depends on the intended use of the spaces afterwards. However, disused areas may be more frequently found in lower-income/less desirable areas and therefore their restoration could contribute to distributional justice (e.g. green space provision). Yet, very intensive biomass production could also involve burdens for rather poor residents locally, to the benefit of wealthy users or investors elsewhere. The process of regeneration may enhance procedural justice, like in the co-creation aspect of the proGReg project. (Source: [Regeneration of disused urban land](#)).

Justice

As described in chapter 4, many of the projects and approaches do not pay explicit attention to justice as a dimension of sustainability. In some cases these approaches do in fact address power relations for example by challenging a toxic discourse and stigma of specific groups without explicitly framing their efforts in terms of justice. Such as the stigma around youth groups as being 'troublesome' (see wiki [culture for empowerment](#)). Other approaches have a more implicit and indirect focus on justice via participatory processes, deliberation, pluralism and inclusion. Such processes can be tied to e.g. procedural justice. An example of such an approach are [Experimentation labs](#) (see textbox 4). This Wiki-page reads: "*Justice is not explicitly a theme in the content of urban experimentation labs, but notions of justice as a principle arise along the co-creation theme, where local citizens and community groups can have access to fair, open and transparent processes of city making*". A similar rationale applies to the approach of [co-learning and knowledge brokerage](#) (see textbox 5).

Textbox 4: Narrative of change of experimentation labs

"Urban experimentation labs aim to tackle the challenge of designing place-based, relevant and replicable solutions to social and environmental sustainability problems. The underlying premise of their logic is that if more actors are involved in brainstorming about, developing, testing and reformulating such solutions in concrete locations then more new ideas will arise and solutions will be more likely to be accepted and with higher uptake by the local public. This is why they are focusing on co-creative, human-centric and user-driven research, development and innovation, with the commonly expressed goal of developing smarter, more inclusive, more resilient and increasingly sustainable societies. Overall, transition to more sustainable and just futures needs to be collaborative, open to learning and experimental, and city labs aim at being examples of, and providing input for more,

such processes” (Source: [Experimentation labs](#)).

However, the wiki-page of [co-learning and knowledge brokerage](#) reflects on the ambiguity of the extent to which these processes of co-creation actually lead to procedural justice:

“Whereas the driving goal of knowledge brokerage networks and actions is to better understand and address urban challenges, this is not always necessarily done with the same attention to justice. Namely, whereas breaking institutional and disciplinary silos is likely to contribute to more integral understandings and timely reactions with regards to some existing socio-environmental inequalities and injustice, it is not guaranteed that these processes of brokerage will not also reproduce or ignore other types of injustice. This is particularly the case when knowledge about complex issues of sustainability is shared and asserted mainly between high-level bureaucrats, academics and policymakers, excluding more grassroots demands, experiences and knowledge”.

This quote shows that processes of knowledge brokerage that exclude grassroots voices and demands, might lead to integral understanding of urban challenges, but reproduce or ignore other types of justice.

Textbox 5: Narrative of change of co-learning and knowledge brokerage

“Achieving environmental and social sustainability is a multi-faceted and multi-layered challenge which requires the joint work and synchronisation of efforts from a number of institutions and actors, at multiple scales. In order for this process to bear fruits, knowledge needs to be translated, circulated and reflected upon collectively, breaking professional, institutional and social boundaries. Co-learning and knowledge brokerage aim at enabling communication, collaboration, stimulation and motivation for diverse stakeholders and can help towards urban sustainability, building national and international bridges for mutual learning between society, the scientific community and policy makers. This can have implications for research and innovation agendas, the development of policy recommendations for real social needs, and the creation of platforms for dialogue and mutual learning among citizens and urban actors in order to strengthen innovative governance for urban sustainability” (Source: UrbanA Just Sustainable Cities Wiki, [page co-learning and knowledge brokerage](#)).

Such participatory approaches also bear the risk of becoming a tokenistic exercise. In this way these innovations potentially ignore the ethics and political consequences of mobilising citizens in the context of retreating government and welfare state arrangements. In the case of [Experimentation Labs](#), the Wiki-page reads:

"...as case findings show, some urban labs (or larger-scale clusters of labs) include membership fees in order to be part of decision making, while in smaller-scale examples the process followed for the selection of participants is not clear and appears to be controlled by research institutes and/or city officials. There is thus the risk of patronising ethics and discrediting local and situated knowledge(s) (...) The limitation of conceptualising justice more broadly in the core themes that labs tackle, but also in their methodology and process, bears the risk of such innovation and solutions having disappointing performance in terms of their expected benefits".

This fragment shows that paying improper attention to justice, not only in terms of content, but also in process and methodology, might turn out to hamper the transformative potential of these approaches.

The approaches that do address (social) justice more explicitly tend to have a more radical attitude. An example is the [Right to Housing](#) movement that advocates that access to housing because is the first step in solving social exclusion:

"The right to housing addresses living conditions of vulnerable urban citizens which either have no access to housing or no access to adequate housing. As such, the right to housing has an inherent strong focus on social justice as the end goal is to provide vulnerable citizens with decent living standards, ultimately reducing the gap with wealthier classes who are able to fulfil their needs. The underlying message is that social justice can be achieved through formal government interventions. When such interventions are lacking, governments risk creating socially unjust dynamics: lack of housing, lack of affordable-habitable-safe housing, gentrification, evictions and privatisation of the public urban space".

Besides the fact that this quote illustrates the explicit focus on social justice of the Right to Housing movement, it furthermore shows the movements purpose to challenge the macro power relations, in this case "the model of neoliberal economy which seeks to reduce government spending for public purposes (e.g. social and public housing) in favor of private sector interventions. The concept of "housing for all" is in inherent conflict with the ebbs and flows of a speculative neoliberal market" (source: [wiki-page Right to Housing](#)). Challenging these macro-issues and related power relations is what showcases the radicality of such an approach. It is important to note that what is perceived as radical and moderate is always context-dependent and will change over time or might change rather rapidly due to shocks and crisis. What is moderate today might have been radical in the past. Or the other way around, which might be the case for social housing. Similar to the more moderate and/or

implicit approaches this more radical and explicit focus on justice bears risks. Namely, of remaining a niche, becoming disconnected from other niches or the regime and/or having little opportunities for mainstreaming. This puts forward the question of how to navigate between these two discourses of implicit versus explicit, and radical versus moderate.

Interlinkages between sustainability and justice

In many approaches the connection between justice and sustainability is unclear. As we learn from [co-learning and knowledge-brokerage](#) the positive benefits of procedural justice for environmental sustainability and the positive effects on distributive justice of sustainability interventions are often assumed.

“The connections between sustainability and justice are not clear in this overall type of approach of co-learning. It is shown, for example, that more participatory processes (procedural justice) through community based design do improve the outcomes of cultural heritage actions. In most cases, distributive justice is more an assumed outcome of better sustainability policy (trickle down of benefits), but justice as such is not necessarily brought into question, neither as an outcome nor in the process of knowledge brokerage around sustainability”.

This observation aligns with “transition tensions” of Cipler & Harrison (2019) mentioned in chapter 3 between sustainability performance on the one hand and inclusivity and equitable distribution of benefits and burdens on the other. In other cases, greening interventions might exacerbate existing social-economic inequalities by contributing to processes of gentrification (see textbox 1 on [NBS](#) above). This points to also paradoxes and tensions present within each approach regarding the extent to which it is both transforming and reproducing existing structures, as noted in chapter 3.

While the majority of approaches do not explicitly relate (un)sustainability and (in)justice, there are some approaches that have the potential for connecting the two. For example [community gardens](#) and food, and urban farming (see textbox 6). Urban community gardens and local food production are seen as a bottom-up approaches to improve food provision and greening in cities, as well as promote inclusive communities. Urban agriculture and *doing* gardening is not only a tool to provide for (access to) food but also has social benefits in terms of community building and personal recovery from trauma. In the wiki this approach is placed in the context of a shift from ‘sustainable’ to ‘regenerative cities’.

Textbox 6: Relation to UrbanA themes: Cities, sustainability, and justice -

Community gardens and food

Urban gardens have come to symbolize a proximate and locally driven way of improving life in cities, not only in terms of food provision and greening but also as inclusive community hubs that promote sustainability. In all their diversity, urban gardens are not only responses from below to the socio-economic crisis and its associated precariousness but have also increasingly become part of urban planning and policy.

Food justice activists defend urban agriculture as an important tool for urban food security and sovereignty (Anguelovski, 2014)^[12], especially so in the context of food deserts and unhealthy foodscapes. Gardening work holds individual healing and other health benefits for socially vulnerable residents and can help them recover from trauma.

Regarding sustainability issues, EdiCitNet's ECS conceptual framework explores how urban farming combined with closed loop systems for sustainable water, nutrient, and waste management can create more resilient cities. Both ProGReg and EdiCitNet explore many aspects of sustainability to a very deep degree, seeking to identify and improve areas in cities through NBS including: biodiversity, the carbon cycle, soil consumption and use of natural resources in urban environments, citizen involvement, education and empowerment. Citizen science and active citizen participation also include sustainable education and nature appreciation ([Source: Community gardens and food](#)).

The question remains in relation to the governance of transitions whether paying attention to 'the social dimension of' transitions, for example in subsystems like energy, mobility and food, is creating processes and outcomes that are actually more just. There is a risk that justice becomes instrumentalized in order to make approaches more ecologically sustainable or profitable. While from a political perspective on transitions, power is not only a means to an end, but equitable power relations are a goal of sustainability transitions in itself. These questions and tensions related to (drivers) of (in)justice is central to the work of WP4 and the main theme of the second Arena Event in Barcelona that will happen online on the 4th and 5th of June 2020.

5.3 Exploring the transformative potential of approaches for transition

What role do different approaches play in different phases and dimensions of ongoing transitions towards just and sustainable cities?

In this section we first reflect on the purpose of approaches. Then we describe the different transformative practices of approaches and what is their potential transition impact.

What's the purpose?

For many approaches in the Wiki on Sustainable Just Cities the transformative potential of approaches is partly based on the way it is *being purposed*. This thought is expressed in the wiki-page [digital fabrication](#), or [fab-labs](#):

“Though it might seem like an obvious point to make, the transformative potential of digital fabrication depends very much on the purposes for which it is used. For instance, people might print guns on 3D printers to form militias and stop poor people entering the city once the climate apocalypse has destroyed most of the world. Moreover, FabLabs might be used for personal transformation projects (e.g. budding entrepreneurs) rather than socially transformative projects. Digital fabrication could be used for decentralised democratised production, or increasingly individualised, neoliberal endeavours”.

The risk of approaches being captured by a neo-liberal and individualised logic of the market seems to be especially applicable for the tech and data-driven approaches, many of which link to the [Smart-City narrative](#). In some instances there seems to be limited understanding of the extent to which these approaches could improve wider well-being or how potential benefits could be distributed evenly. As the wiki-page on [data collection](#) reads:

“The digital is pregnant with promise, but the utopian proclamations about how digital data can improve our cities are based, for the most part, within paradigms that place economic development at the fore. This casts questions about justice and sustainability within discussions about profit and a system which is predicated on growth”.

The extent to which an approach, such as data-collection, has the potential to contribute to sustainable and just cities seems to depend largely upon how different interests of the state, market and community are being operationalized in practice.

Collage of transformative practices

The approaches in the Wiki on Sustainable Just Cities differ in the ways they challenge, alter and/or replace exclusive and unequal power relations. Some approaches focus more on prefiguring alternative practices, while others focus more on setting up infrastructures and/or frameworks. There are approaches that mostly consist of ideas and narratives and those that are about enabling other approaches that provide the conditions for alternative ideas and initiatives to emerge, develop and diffuse.

[Ecovillages](#) are an example of an approach that is *pre-figuring* a future vision. As is written in the Wiki-page:

“By demonstrating that alternative forms of living are not only possible but already happening, they [ecovillages] are challenging existing structures and power relations in current energy, food, water and housing systems”.

This is not only a matter of opposing certain practices, social relations and institutions, but also demonstrating and enacting alternative lifestyles. This is also the case for certain [community gardens or local food initiatives](#).

An example of an approach that is presenting an alternative narrative is the right [to housing](#) movement that takes housing away from ‘the market’ and into the domain of ‘human rights’. Another example is the approach [beyond GDP indicators](#) (see textbox 7). This approach challenges the ingrained belief that GDP growth signifies a healthy economy and society, and provides alternative indicators based on different values and principles that oppose the linear growth paradigm.

Textbox 7: transformative potential of Beyond GDP indicators

Alternative (and complementary) approaches and indicators to GDP carry groundbreaking transformative potential as it challenges the established belief that GDP growth is the n°1 indicator of a healthy economy and society. By providing more inclusive knowledge of sustainability and mainstreaming alternative indicators, these approaches can inform and transform the management of the socio-eco-environmental system we live in and depend on. Also, the process of defining the indicators can be as transformative as the indicators themselves. While the operationalisation of natural capital and ecosystem services and the co-design of values-based indicators are innovative, the other approaches are not. Nevertheless, they all explicitly seek to overcome the current unsustainable and unfair patterns, by altering the societal progress narrative, its definition and its GDP-centered measurement framework, and by broadening the stakeholder groups for the benefit of the common good, and with that for the sake of environmental sustainability. (Source: [Beyond GDP indicators](#)).

Some approaches contribute to transformation by ways of *enabling* and/or *providing* the conditions for other approaches to emerge, develop and diffuse. Examples are democratic innovation, experimentation labs, [Governance and participation processes](#), [Co-learning and knowledge brokerage](#), [Multi-stakeholder partnership - policy](#). A dimension of enabling is the ‘institutional work’ that many approaches engage in, which might empower other community-led initiatives in the future. For example [ecovillages](#) that set precedents for future communities by the changes in regulations. Another dimension of enabling is the democratization of initiatives and including previously unheard voices.

Providing new frameworks or infrastructures is the case for [Impact evaluation and assessment frameworks](#), with [Beyond GDP indicators](#) as a specific example. These are

examples of providing new frameworks to monitor and assess transitions to just and sustainable cities. New technologies in the domain of [energy and mobility](#) are an example of approaches that work on alternative infrastructures, like IT platforms that support modular mobility systems and smart energy grids.

Potential transition impacts

We mapped several approaches on the x-curve to illustrate the different ways approaches might potentially contribute to transitions to just and sustainable cities (figure 6). As described in chapter 3, this curve visualizes the dynamics of societal transitions as iterative processes of build-up and breakdown over a period of decades. To repeat, mapping these approaches onto the x-curve is not a matter of analyzing the actual impacts of these approaches, but an exercise in showing how we can think of the transformative potential of initiatives vis-a-vis change.

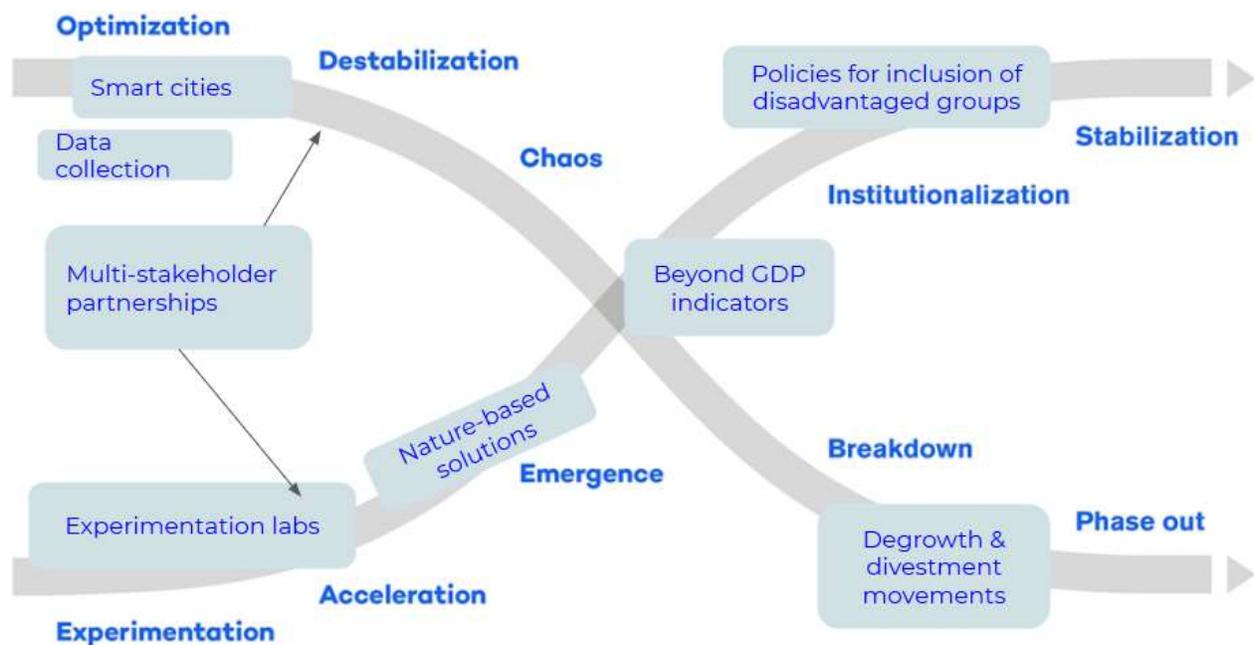


Figure 6: examples of approaches mapped on the x-curve according to their potential contribution to transition.

- Optimization:** Some approaches, like e.g. [Smart Cities](#) and [data-collection](#), have the potential to optimize the status-quo without questioning or doubting the current ways of working or direction of the transition. The focus lies mainly on doing new things (like new technologies), rather than on doing things differently.

- **Experimentation:** Some approaches, like e.g. [experimentation labs](#), have the potential to provide space for developing radical new ideas and/or solutions.
- **Connecting regime and niche:** Some approaches like [multi-stakeholder partnerships](#) have the potential to connect the regime and the niche by creating networks and partnerships.
- **Acceleration/emergence:** Some approaches like [nature-based solutions](#) become increasingly visible, form networks and become less and less controversial. These approaches have the potential to mainstream new practices, narratives and structures.
- **Institutionalization:** Some approaches, like [policies for the inclusion of disadvantaged groups](#) or [Beyond GDP indicators](#) have the potential to institutionalize new structures, practices and narratives by embedding them for example at the formal institutional level of municipal, regional or national policies.
- **Breakdown and phase-out:** Some approaches, like e.g. [Degrowth](#) and the [divest movement](#), have the potential to stop or let go of old ways of doing, thinking and organizing.

However, the mapping process and the conversations during the Arena Event in Rotterdam showed that it is hard to distinguish between the ambition, the potential and the actual impact of an approach. Moreover, the transformative potential of an approach might - due to third-order learning - evolve and change over time. As was observed in the growth of the network of the Impact Hub [as an example of a co-working space](#). Many wiki pages mention the fact that approaches have had multiple unexpected and unintended negative side-effects (like gentrification of greening initiatives expressed earlier), but, on the other hand, also have had (unforeseen) regenerative impacts. Examples include the social and health benefits of gardening and a sense of belonging generated by cultural approaches).

This suggests that the transformative potential and radicality of an approach is not necessarily inherent to the approaches themselves and depend upon many factors. Some that were mentioned in the wiki pages include: the institutional context, the extent to which an approach is perceived important by policy makers or makes it to the policy agenda and the way the problem is framed etc. While there is a tendency to equate the distinction between grassroots/community vs. formal/government institutionalisation with the distinction between radical and moderate, we actually see that this equation does not always hold. Government-oriented approaches can be more radical than community-driven approaches. The [right to housing](#), for instance, could be considered more radical in its transformative potential than many [co-housing initiatives](#), in the sense that the demands of housing as a basic human right

fundamentally deviates from the current housing market and would require a substantial change of formal government regulation, while many co-housing initiatives, on the other hand, can in fact co-exist within the current housing market and regulatory frameworks. Obviously, some co-housing initiatives are more radical than others, and many of them may be combined with the right to housing movements. This actor-perspective is central to the next section.

5.4 Bridging institutional logics

What are the dominant institutional logics of the selected approaches and which logics are they challenging / trying to change? (5.4)

In this section we use the multi-actor perspective as described in chapter 3 to illustrate how approaches involve different actor roles and different institutional logics. We also reflect on how and to what extent approaches are contributing to shifting power relations within and across these diverse institutional logics.

When comparing the various approaches, we clearly can distinguish approaches that are more community oriented (e.g. [community gardens](#) & [sharing and cooperatives for urban commons](#)), some that have an explicit government orientation (e.g. [participatory budgeting](#) or [right to housing](#)), some with a stronger market-orientation (e.g. some [co-working spaces](#) or some [energy & mobility solutions](#)) and others with an explicit hybrid institutional orientation (e.g. [multi-stakeholder partnerships](#)). See figure 7 below for a visualisation of this distinction. While some approaches seem to explicitly set out to become part of formal planning processes (e.g. [evaluation and assessment frameworks](#), [Governance for urban climate mitigation and adaptation](#) and [some nature-based solutions](#)), other approaches operate more according to an informal logic (e.g. [ecovillages](#)).

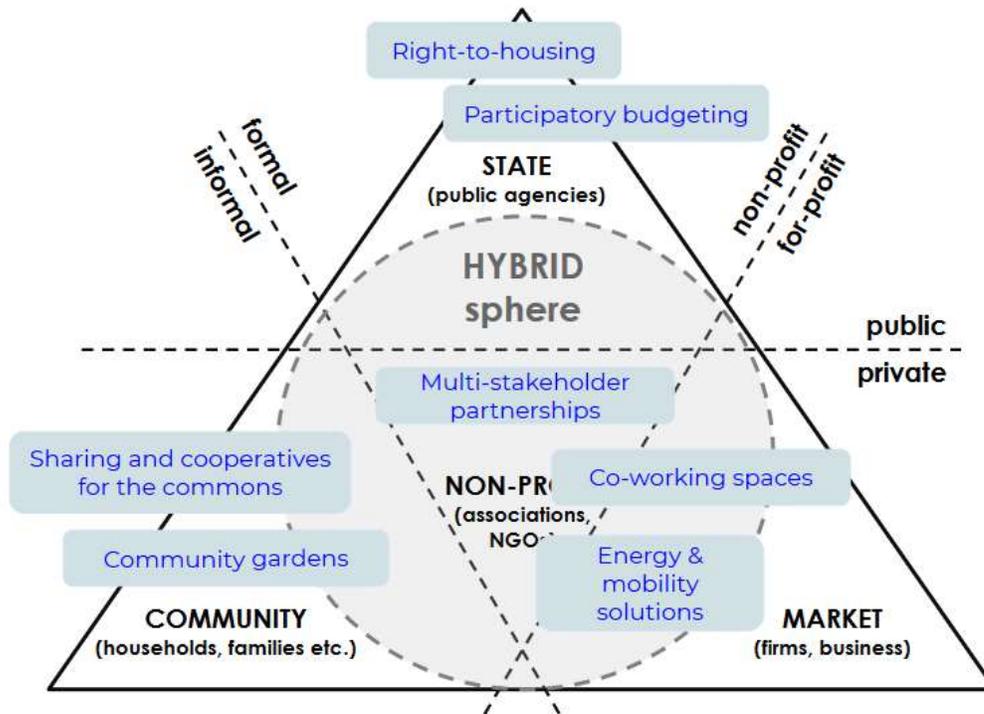


Figure 7: examples of approaches mapped according to their main orientation.

More important than the institutional logics that approaches are driven by or oriented to, is the observation that many approaches also challenge the institutional logic that they are part of, or challenge the boundaries between different institutional logics. For instance, some of the [financial practices and instruments](#) and solidarity economy-initiatives challenge market capitalism and the dominant paradigm of infinite economic growth. Some [democratic innovations](#) ([participatory budgeting](#) as being one example) empower citizens to influence decision-making and have the potential to challenge existing power relations between different citizens within a neighbourhood, but also between citizens and local governments. These approaches rely on the inclusion of different types of knowledge and blur the boundaries between the formal role of being a citizen and the informal role of being a community member.

This is also the case for [citizen science](#). Citizen science generally refers to the engagement of the public in scientific research activities and potentially has the role to democratize the production of knowledge. In citizen science projects citizens become active participants, as is written in the wiki:

“The process directly responds to citizens' concerns and can take into consideration their perspectives and expertise. By identifying citizens as

scientists, not solely participants, they are empowered to actively contribute to knowledge creation and promotion”.

These activities and research output in turn could inform policy, for example related to environmental issues. In this way citizen science projects blur the boundaries between community, third sector (academia) and the state. As this example shows, citizen science has the potential to change the micro power relations between policy makers, scientists and citizens, and who is considered a legitimate source and creator of knowledge in a specific context or in a specific case (e.g. air quality).

In chapter 3 we noted down the distinction between macro-level (systems/societal) and micro-level power relations (interpersonal/local level) in understanding the transformative potential of approaches. [Citizen science](#) is an example of an approach that alters power relations on the microlevel: the relation between citizens vis a vis scientists and policy makers. A similar change in micro power relations is identified in the wiki-page of [sustainable food supply chains](#) and [social food movements](#) that challenge the relation between producers (farmers), consumers and retailers, as well as human-animal relationships. Often these power relations are challenged by embracing alternative relational values that deviate from the dominant market logic of relations based on competition. Cultures of collaboration based on trust within networks and between organizations are being nurtured in many community driven approaches e.g. like in some [experimentation labs](#), [co-working spaces](#), [community gardens](#).

In discussions, like during the first Arena Event in Rotterdam, we are often inclined to overlook the ways these approaches (and initiatives) challenge these micro power relations, and we tempt to assess their transformative potential solely based on the extent to which they challenge, alter and/or replace macro-relations. In some of the wiki-pages the transformative potential of approaches to change macro power relations is questioned. Very little approaches have the explicit ambition to do so. Some exceptions are local food networks that challenge (multi)national chains and global food systems, and the right to housing movement that challenges neoliberal economic principles of the ‘housing market’.

Moreover, the radicality and transformative potential may very well lie at the intersection and in the combination of approaches and how they challenge micro-relations, rather than in the isolated approaches themselves (e.g. combining a co-housing initiative that is already prefiguring its future vision in action on a small scale, while meanwhile also being involved in the right to housing movement to demand more structural government change and support).

CHAPTER 6: CONCLUSION AND DISCUSSION

In this concluding chapter we will provide an overview of the most relevant starting points and insights (6.1). Then, in paragraph 6.2, we will reflect on what we can learn from transdisciplinary and transformative research in making a participatory research process. In paragraph 6.3 we come back to the idea of the knowledge commons and reflect on the relation between commoning and sustainable just cities. The final paragraph explores what the implications are of these insights for the following Work Packages and Arena events that will be organized in 2020 and 2021.

6.1 Summary of the most relevant starting points and insights

During the mapping phase of the UrbanA project we have included 400+ (mainly) European projects in our database, which resulted in approximately 200 approaches which were analyzed and subsequently merged into the UrbanA Wiki Database on Approaches to Sustainable & Just Cities. This database was shared and reflected upon during the first Arena event in November 2019. Since then, we've invited other members of the Community of Practice to complement the approaches in the database or add new approaches and share their project or initiative. In this chapter we summarize and reflect on the main insights of this process and its contents.

The urban scale proved to be a fruitful site for addressing justice and sustainability. On the one hand, urban environments harbour the conditions necessary for approaches to develop and diffuse and on the other hand the mapped approaches are suitable for tackling the specific sustainability challenges of cities. This, however, does not mean that the lessons learnt presented in this deliverable only apply to this set of mapped approaches, the lessons learned and the questions posed are relevant for anyone who wants to work on and think of transformation. Additionally, it is important to highlight the existence of the translocal networks that some of the approaches are part of because the counter-narratives that these networks develop have actual material consequences and create space for imagining alternative cities.

A number of approaches address environmental issues like climate and water resilience, air quality, biodiversity, soil quality, healthy food, through different types of strategies, solutions and interventions ranging from new technologies and behavioural change. Positive environmental impacts might be achieved indirectly as a result of the principles that underlie the alternative ways of organizing. The intergenerational, global and multicultural dimension of sustainability issues were not very prominent in most approaches. Even approaches with explicit positive ecological impacts might have unexpected negative environmental consequences, e.g. intensifying recreational use or reproducing environmentally extractive systems of economic growth.

The radicality of the extent to which approaches pay attention to justice and the extent to which this is done explicitly differs a lot. Approaches might challenge power relations implicitly by countering negative discourses or via participatory processes, inclusion and pluralism. In many cases the extent to which these approaches actually lead to procedural justice is, to say the least, ambiguous. They fail to address the political consequences of their interventions and might reproduce other types of injustice. On the other hand, the more explicit and radical approaches bear the risk of becoming isolated. This led us to formulate the question: How to navigate between these two discourses, as both city-makers and city-thinkers? We will get back to this question below in chapter 6.4.

The identified tensions between sustainability and justice as described in chapter 3, between sustainability on the one hand, and inclusivity, recognition and equity on the other, are apparent in the selected projects and approaches. Often the notions of sustainability and justice are not made explicit or operationalized within the approaches and/or projects. A possible explanation for this vagueness, is the multi-interpretability and normativity of these notions (see chapter 3 and 6.2). Also, in many cases the connection between justice and sustainability remained unclear. This underlines both the political nature of justice and sustainability, but also the apolitical manner in which they are often addressed in cities. In sum, the approaches often emphasize one or the other side of the coin, where justice was often implicitly addressed instead of used as an explicit orienting principle (e.g. making a city more just). In chapter 5 we also identified a risk that justice can become instrumentalized in order to make approaches more ecologically sustainable or profitable.

There are, however, also examples of approaches that interlink the notion of environmental sustainability and justice. This often proved the case within approaches which were aimed at promoting biodiversity and sustainable food in combination with the participation of local communities (e.g. in approaches like community gardens and urban farming).

The notion of transformation helps to add a sense of directionality to the approaches. It helps to pin-point what needs to change in a city in order to make it more just and sustainable. Also, there was a strong emphasis in both the included projects and approaches on the democratization of local policies, resources and decision-making processes which links to different types of justice (mainly procedural). In particular, the role and involvement of local communities and disadvantaged groups was stressed in this call for democratization.

The approaches in the database, firstly, differ in the ways they provide alternatives to the dominant ways of doing, thinking and organizing, or challenge, alter and/or

replace exclusive and unequal power relations. There are, for instance, approaches that are mostly focused on the co-creation of alternative ideas and narratives and other approaches that are about enabling these alternatives to flourish and provide the conditions for other alternatives or initiatives to emerge, develop and diffuse. Secondly, approaches play different roles in the different phases of ongoing transitions towards more sustainable and just cities. Some approaches have the potential to optimize the status-quo without questioning the current ways of working while others have the potential to mainstream alternative ideas. It is particularly the aggregate combination of these different foci and strategies that produces transformative potential. For example: embedding new practices and structures at the formal level of local or national policies while at the same time phasing-out and breaking down those structures and practices that are undesirable and unsustainable. A similar argument holds when understanding the approaches from a Multi-Actor Perspective. Approaches that are based on the organizing principles of the community are not necessarily more radical than approaches that are government-oriented.

The Multi-actor also brings to the forefront that the transformative potential of approaches is partly understood by the way they challenge or blur the power relations between market, community, state logic, the formal/informal and private/public. In practice, this seems most apparent on the micro-level by changing roles or embracing different relational values. Many of the approaches seem to struggle with the dominance of the formalised and centralised structures of both market and state-led organisations, and the relation between many local initiatives and local bureaucracy is challenging and might lead to contestation. For example, when local governments are slow in formally approving innovative activities or when the use of land or space is temporarily permitted, which is for example the case for some urban gardening and food initiatives. These contestations might spark public attention and adapted regulations that provide space for other initiatives and approaches to embark on a similar journey.

As the multi-actor perspective highlights the different roles that we all play across different institutional logics, it also points to responsibilities for different approaches, initiatives and individuals to contribute to processes of change. When critically reflecting on the approaches in terms of their contribution to (un)sustainability and (in)justice, how do we frame this issue of responsibility? For instance, to what extent is e.g. a community gardener responsible for the green gentrification of their neighbourhood, and to what extent is it fair to expect them to not only improve micro-level power relations (e.g. enabling some people to have access to a garden that otherwise would not have had that access) but also improve macro-level power relations?

6.2 Transdisciplinary and Transformative Research

This deliverable has focused on the mapping of projects and approaches to sustainable just cities and we have used a transition perspective primarily for making sense of and comparing the projects (chapter 4) and approaches (chapter 5). In explaining the data-making process (chapter 2), including the co-creative Wiki and arena-design, we already reflected on the inextricable linkages between analysis and process and the importance of not only studying participation as an object of study but of making the research process participatory in itself. A transdisciplinary and transformative approach to research is indeed an important aspect of UrbanA's mission and has accordingly been integrated in the transdisciplinary arena-design as laid out in Deliverable 2.1 (Rach et al. 2019). However, in this regard, there is a lot more we can learn from transition action research and other kinds of transdisciplinary and transformative research on how to approach the notion of just and sustainable cities in a participatory way.

Given the complexity of both sustainability and justice concepts (see e.g. the tensions by Cipler & Harrison 2019), it is impossible to calculate, analyse or reflect our way out of this complexity. We need to accept that no approach/initiative/city will be inherently just and sustainable, and that we cannot prescribe what that should look like. As we have noted in chapter 3 these principles are intrinsically value-laden and multi-interpretability, and also are shaped by different institutional logics. So rather than assessing if an approach/initiative, or city is just and/or sustainable, we should take the notions of sustainability and justice as 'orienting principles' to guide processes of societal transformation (Patterson et al. 2018) and to democratize the imaginative search for such sustainable and just cities. This asks for actively engaging a diversity of people working and living in these cities, especially those involved in various initiatives and approaches, in critical and participatory processes to contest and deliberate what a sustainable and just city can mean for them in their own contexts. The approach of transition management aims to provide process principles to organise such participatory processes, which has been an important source of inspiration for the design of UrbanA's translocal arena events, as we laid out in deliverable 2.1. It would be interesting to take these principles and other governance process insights further and reflect on how participatory approaches could be taken up by city-makers and city-thinkers across different approaches, institutional logics, cities and fields of research.

Different approaches and the people involved in different initiatives and networks are likely to have different ideas of what (un)sustainable and (in)justice means in their urban environments. These differences might be partly accounted for by the inherent

differences across institutional logics. What does justice and sustainability mean from a community, market or state logic perspective? What does market or community justice look like? According to which institutional logic should we think of sustainable just cities? How, by whom and according to which logic is it decided what is sustainable and just? Is this always a public matter of formal state politics? Or is it also a matter of informal and private deliberations? Thus, it is crucial to confront different perspectives and logics with each other while discussing questions like: What is a sustainable city and/or just? How can we reimagine our cities? And how can we address the numerous tensions between sustainability and justice in our approach, initiative and/or city? This participatory approach links not only to a procedural justice perspective, but it also helps in addressing other types of justice (e.g. recognition, restorative and distributional justice). It also connects to our findings in chapter 4 and 5 in relation to the transformative potential of the included approaches, which often are (implicitly) aimed at democratic change in their respective cities.

Next to democratizing the collective search for just and sustainable cities, this search also poses challenges for researchers and scholars, and their respective funding bodies. In their recent publication on just urban transitions, Hughes and Hoffman (2020:2-9) argue that research on justice and equity could benefit from a shift in perspective: from an evaluative perspective to a change and process-oriented perspective. They argue that the principles of justice offer a fruitful starting point to engage with the politics of city making and identify the approaches that contribute to sustainable just cities. This call for more design-oriented and forward looking just urban transition research resonates with both transition management research and UrbanA's mission, and is an interesting challenge to take up in the upcoming UrbanA arena-events and subsequent analyses and comparisons. A related challenge could be to take the insights from the UrbanA arena events and the Wiki co-creation over the coming years, and translate them back to academic debates about sustainable and just cities.

6.3 Opportunities and challenges of co-creating a knowledge commons in practice

In this deliverable we applied a commons-based perspective to UrbanA's aim of synthesizing and brokering translocal knowledge on sustainable and just cities. Commoning is coherent with the subject matter and the aims of UrbanA as the need for diverse forms of commons and commoning is both a key strategic orientation and mode of practical action for more sustainable and just forms of social, economic and political organisation worldwide (Bollier & Helfrich 2012, 2015; Henfrey & Kenrick 2017). As a number of the (community-led) approaches in the Wiki on Sustainable and Just cities show, e.g. Transition Towns, Ecovillages and co-living, cohousing & intentional communities, cities are home to a diversity of commoning initiatives that has been

recognized as alternatives to profit-oriented business and centralized state government, promote sustainability and/or justice and/or reclaim the city as a common space that exists and operates in order to serve the collective good (e.g. Large 2010; Stavrides 2016). In this deliverable we framed our aim of brokering and synthesising this type of knowledge as the challenge of curating a knowledge commons on sustainable and just cities.

Commoning is also inherent with the ethos and organizing principles of the UrbanA project. We are committed to organize and facilitate an open process that prioritizes the needs of the people that are affected by injustice in cities over the needs of the market or bureaucracy. Translating the theoretical underpinnings of transformative and transdisciplinary research has led to the formulation of a set of guiding principles or values that serve as a backbone for the design of the participatory Arena processes. E.g. impact driven, interactive, diversity, co-creation, rooted, contextualized, translocal and blended (see Deliverable 2.1, Rach et al., 2019). Using open source WikiMedia software to share and co-create the databases of approaches and projects on Sustainable Just Cities is part of this commitment, and itself an experiment inspired by other examples like the [Knowledge Commons for Community-led Action on Sustainability and Climate Change](#) developed and curated by UrbanA partner ECOLISE. By using this software the Wiki has the potential to live on after the project is formally finished.

Based on the first-year of UrbanA's journey there are a number of challenges of co-creating a knowledge commons that we would like to highlight. Many of these boil down to the fact that the UrbanA knowledge commons that we aim to foster is dependent upon state and market actors (e.g. including the use of commercial platforms for communications mentioned earlier), and not isolated from the institutional logics that organize these domains. First of all, UrbanA operates within the context of EU-funded projects. This provides for the time and space to embark on this journey, but at the same time sets limitations like the duration, the promised outputs and activities. It also meant that the action-research process is first and foremost initiated and designed by a group of researchers. A major part of the mapping that forms the backbone of the insights in this deliverable and the Wiki on Sustainable and Just Cities, as described in Deliverable 3.2 and in chapter 2.2, has been initiated and produced by researchers - with limited input and involvement from other layers of the Community of Practice, which was then still being formed - and the people who are impacted by unsustainability and injustice. Which doesn't mean that these categories are mutually exclusive. As researchers who also live and work in cities, we also encounter manifestations and drivers of injustice and unsustainability in our daily lives, such as air pollution and unaffordable housing. This raises the following question: how could the research funding logic of the EU better recognize and provide space for a commons-based approach to knowledge production?

However, these risks and challenges have been identified while setting up the mapping guidelines beforehand. That is why the first Arena Event in Rotterdam was an important step in the mapping-process since, as the moment that we opened up to engagement of a broader group of the Community of Practice. The Arena event was set up as a moment to reflect upon and valorize the insights that had been distilled thus far and documented in the form of 33 wiki-pages. During this two-day event a number of activities were directly aimed at sharing insights from the Wiki and offered participants the opportunity to share their thoughts and experience. Activities included table sessions around specific approaches, parallel thematic sessions, open-space method and a wall of approaches that was an offline representation of the online wiki-pages. A challenge was how to capture the insights generated during these activities and translate this collective social learning process into the database. Collective learning and knowledge co-creation are not processes that are very straightforward, linear or easy to identify. Moreover, commoning and peer-to-peer exchange happens between and within different circles of the CoP, between and in between different activities, interactions and moments in time. This might have led to the creation of shared values beyond the borders of UrbanA that we are even unaware of. To put it differently, what has been captured and distributed in the Wiki on Sustainable Just Cities is only part of and the start of the knowledge commons of UrbanA. This raises the question: how to curate a knowledge commons in a way that makes it easy to document and distribute at the same time?

This is highly relevant, since we experienced a high threshold for members of the Community of Practice to contribute directly to the Wiki. Although the Wikimedia software provides the opportunity for open-access and collaborative ways of working, the level of inclusiveness of using this type of software still is limited. In order to contribute to the wiki you need a set of skills (like writing and referencing skills and technical proficiency) and access to resources like a laptop and internet. Secondly, although accessibility of style was on the top of our minds while writing the wiki pages, some of us are academics who are used to producing academic-style text. Moreover, although we presented the wiki pages as in development and open for contributions, the form and format might appear not very welcoming for people to edit. These and other reasons might have led to a high entry barrier for people to access and add to the wiki.

Another challenge was how to synthesize and boil down knowledge generated in 400+ EU-funded projects to a database that is accessible and comprehensible while at the same time providing contextual insights, actionable knowledge and acknowledge interconnectedness. We are well aware of the fact that the database currently appears to be flat and misses contextual understanding. This is partly due to the bias in our mapping approach that started *mainly* from EU-funded projects,

because these projects have the tendency of EU projects to focus on success stories. During the mapping we have experiences that research on approaches presents little critical reflection on the limitations and conditions for and definitions of what is considered successful. For this and other reasons we present the transformation perspective as a useful framework to understand the extent to which approaches have the potential to 'successfully' contribute to just and sustainable cities.

A related and recurring topic within the consortium was the question of what 'qualifies' as an approach and how to deal with the difference in terms of generic versus specific, topical versus methodological approaches and the fact that similar ideas are given different names. During the mapping process we as a consortium were continuously searching for the 'right' analytical level to cluster and understand the objects that we were studying. Instead of seeing this uniformity as a problem and worrying about the fact that similar ideas have been given different names, we have come to see this fluidity as a strength of the database. The database of approaches includes a wide range of very specific practical to very abstract theoretical notions. This reflects the fact that ideas and narratives are fluid, changing, falling in and out of fashion or re-merging constantly and manifesting differently in different contexts. We don't worry about duplication but hope this messiness empowers others to freely add. This does raise another question. So far, the database making has been quite controlled and systematic. Now that we are opening it up, does it mean that anything goes? How do you curate the quality of a knowledge commons?

Following up on the questions that have been raised in the previous paragraph about democratizing the collective search for just and sustainable cities, this not only poses the challenge of translating insights back to academic debates about sustainable and just cities and sharpening theoretical and conceptual notions and models. The question is also how to translate insights and experience on how knowledge has been generated. And how it is written down, with what purpose, by and for whom?

Textbox 7: Developing the wiki on Sustainable Just Cities in the future

During the second online UrbanA Community Conversation on the 21st of April 2020 the following questions and suggestions were raised about developing and curating the Wiki on Sustainable Cities in the future. Part of which has been expressed in this [blogpost](#):

- What are the boundaries of participation, and how do we regulate these? Who can contribute, and who decides this? How do we ensure information is credible, and contributors are legitimate knowledge holders?
- Can we overcome the emphasis on European/EU-funded knowledge, including bringing in experiences and practices beyond Europe?
- How can we make the wiki more accessible to a broader audience? Can we

ensure content is written in accessible language, and use languages other than English?

- How can we use other platforms (like social media channels) to communicate what is in the wiki effectively?

These questions point to the future governance of the wiki and how to manage the wiki using commons principles. Especially as the knowledge creation community expands. We started the wiki as an experiment with a limited set of rules and guidelines. Its user base and audience were relatively small, that centralised organisation and decision-making by the UrbanA consortium has been sufficient so far. However, we do want the wiki itself, and the knowledge commoning community that curates and uses it, to grow in the coming years. This includes being explicit, clear and transparent about who decides what when, and how others can get involved in what aspects of the decision-making (or not).

6.4 Implications for other WP's and upcoming Arena Events

This deliverable highlights a couple of questions and topics that are worth pursuing in the remainder of the UrbanA project. In work package 4 we will go in-depth into manifestations, drivers and barriers of (in)justice in cities. It would be interesting to build on the different institutional logics and the distinction between micro and macro power relations presented here. Secondly, it would be interesting to come up with practical examples of radical approaches to justice that were able to successfully position themselves or negotiate with dominant or mainstream institutional logics. The work that will be done in WP5 will support processes and develop materials through which actors can be inspired and benefit from lessons learned in governance interventions developed for specific urban contexts elsewhere. In WP6 we will synthesise these into policy solutions. Particularly interesting would be to focus the lessons learned from governance interventions and policy interventions on: 1) connecting sustainability and justice more strongly, 2) balancing between radicality versus mainstream 3) creating translocal connections, 4) bridging institutional logics, 5) creating awareness of contextual differences within and between (European) cities.

APPENDIX

This appendix included the tables from the first mapping phases referred to in chapter 4.

A. Tables of the selected projects

FUNDING SCHEME	amount	%
FP5-EESD	9	2,6%
FP7-ENERGY	5	1,4%
FP7-ENVIRONMENT	65	18,6%
FP7-HEALTH	8	2,3%
FP7-ICT	3	0,9%
FP7-KBBE	9	2,6%
FP7-NMP	6	1,7%
FP7-PEOPLE	14	4,0%
FP7-SECURITY	6	1,7%
FP7-SME	3	0,9%
FP7-SIS	12	3,4%
FP7-SSH	59	16,9%
FP7-TRANSPORT	14	4,0%
Other FP's (>3)	11	3,1%
H2020	54	15,4%
Interreg	5	1,4%
JPI Urban Europe	3	0,9%
Other funding scheme	48	13,7%
Unknown	16	4,6%
	350	100,0%

Table 1. Different funding schemes of the selected projects

FUNDING SCHEME	amount	%
FP's	224	64,0%
H2020	54	15,4%
Interreg	5	1,4%
JPI Urban Europe	3	0,9%
Other funding schemes	48	13,7%
Unknown	16	4,6%
	350	100,0%

Table 2. Different funding schemes of the selected projects

PROJECT START	amount	%
pre 2008	22	6,3%
2008	17	4,9%
2009	22	6,3%
2010	22	6,3%
2011	39	11,1%
2012	50	14,3%
2013	50	14,3%
2014	17	4,9%
2015	8	2,3%
2016	18	5,1%
2017	21	6,0%
2018	18	5,1%
2019	10	2,9%
unknown	36	10,3%
	350	100,0%

Table 3. Selected projects and their starting year

SUSTAINABILITY	amount	%
to a great extent	200	57,1%
somewhat	86	24,6%
very little	34	9,7%
not at all	30	8,6%
	350	100,0%

Table 4. Selected projects and their relation to sustainability

JUSTICE	amount	%
to a great extent	132	37,7%
somewhat	107	30,6%
very little	69	19,7%
not at all	42	12,0%
	350	100,0%

Table 5. Selected projects and their relation to justice

URBAN	amount	%
to a great extent	159	45,4%
somewhat	114	32,6%
very little	49	14,0%
not at all	28	8,0%
	350	100,0%

Table 6. Selected projects and their relation to the urban scale

SJU-SCORE	amount	%
9	32	9,1%
8	82	23,4%
7	69	19,7%
6	71	20,3%
5	43	12,3%
4	28	8,0%
3	14	4,0%
2	10	2,9%
1	1	0,3%
	350	100,0%

Table 7. Selected projects and their SJU-score (score on the intersection of sustainability, justice and the urban scale)

Disciplinary perspective	amount	%
Multi-, inter- and transdisciplinary	37	18,6%
Urban studies, planning & governance	25	12,6%
Economics & Business studies	20	10,1%
Sociology & anthropology	17	8,5%
Health studies	13	6,5%
Governance & planning studies	13	6,5%
Climate & ecology studies	13	6,5%
Geography and spatial	12	6,0%
Industrial & Engineering	11	5,5%
Innovation & transition studies	11	5,5%
Policy studies	10	5,0%
Environmental science	10	5,0%
Sustainable development & consumption	7	3,5%
	199	100,0%

Table 8. Different disciplinary perspectives of the selected projects

B. Tables of the selected approaches

SUSTAINABILITY	amount	%
to a great extent	132	68,0%
slightly	25	12,9%
very little	23	11,9%
not at all	14	7,2%
	194	100,0%

Table 9. Selected approaches and their relation to sustainability

JUSTICE	amount	%
to a great extent	75	38,7%
somewhat	60	30,9%
very little	44	22,7%
not at all	15	7,7%
	194	100,0%

Table 10. Selected approaches and their relation to justice

URBAN	amount	%
to a great extent	111	57,2%
somewhat	48	24,7%
very little	26	13,4%
not at all	9	4,6%
	194	100,0%

Table 11. Selected approaches and their relation to the urban scale

SJU-SCORE	amount	%
9	20	10,3%
8	49	25,3%
7	55	28,4%
6	35	18,0%
5	18	9,3%
4	11	5,7%
3	2	1,0%
2	3	1,5%
1	0	0,0%
0	1	0,5%
	194	100,0%

Table 12. Selected approaches and their SJU-score (score on the intersection of sustainability, justice and the urban scale)

Type of approach	amount	%
participatory method	29	14,9%
policy intervention	26	13,4%
technological intervention	24	12,4%
research method	21	10,8%
policy instrument	16	8,2%
ecological intervention	13	6,7%
partnerships	13	6,7%
spatial intervention	11	5,7%
mixed	7	3,6%
places for experimentation	4	2,1%
social movement	3	1,5%
citizen initiative	2	1,0%
education intervention	2	1,0%
other	23	11,9%
	194	100,0%

Table 13. Different types of the selected approaches

Sector/domain	amount	%
(Urban) governance, planning and development	31	18,2%
Energy	17	10,0%
Food	15	8,8%
Economics	14	8,2%
Mobility & transport	14	8,2%
Cross-domain	13	7,6%
Climate	10	5,9%
Social cohesion & integration	7	4,1%
Education & Youth	7	4,1%
Environmental	6	3,5%
(Urban) green spaces/parks	6	3,5%
Housing	5	2,9%
Business & finance	4	2,4%
Welfare & employment	4	2,4%
Community development	3	1,8%
Culture	3	1,8%
Digital & data	3	1,8%
Land use	3	1,8%
Health	3	1,8%
Ecological	2	1,2%
	170	100,0%

Table 14. Different sectors/domains of the selected approaches

Transformative potential	amount	%
great	97	50,0%
somewhat	52	26,8%
very little	21	10,8%
not at all	5	2,6%
unknown	19	9,8%
	194	100,0%

Table 15. Selected projects and their transformative potential

REFERENCES

- Agyeman, J. (2008). Toward a “just” sustainability? *Continuum*, 22(6), 751–756. <https://doi.org/10.1080/10304310802452487>
- Agyeman, J. (2013). *Introducing Just Sustainabilities: Policy, Planning, and Practice*. London: Zed Books.
- Agyeman, J., Bullard, R. D., & Evans, B. (2002). Exploring the Nexus: Bringing together sustainability, environmental justice and equity. *Space and Polity*, 6(1), 77–90. <https://doi.org/10.1080/13562570220137907>
- Agyeman, J., Bullard, R. D., & Evans, B. (Eds.). (2003). *Just Sustainabilities : Development in an Unequal World*. MIT Press.
- Anguelovski, I. (2014). Alternative food provision conflicts in cities: Contesting food privilege, injustice, and whiteness in Jamaica Plain, Boston. *Geoforum*, 58, 184–194. <https://doi.org/10.1016/j.geoforum.2014.10.014>
- Anguelovski, I. (2016). Healthy Food Stores, Greenlining and Food Gentrification: Contesting New Forms of Privilege, Displacement and Locally Unwanted Land Uses in Racially Mixed Neighborhoods. *International Journal of Urban and Regional Research*, 39(6), 1209–1230. <https://doi.org/10.1111/1468-2427.12299>
- Anguelovski, I., Connolly, J., & Brand, A. L. (2018). From landscapes of utopia to the margins of the green urban life: For whom is the new green city? In *City*, 22(3), 417–436. Routledge. <https://doi.org/10.1080/13604813.2018.1473126>
- Anguelovski, I., Connolly, J. J., Garcia-Lamarca, M., Cole, H., & Pearsall, H. (2019). New scholarly pathways on green gentrification: What does the urban ‘green turn’ mean and where is it going? *Progress in Human Geography*, 43(6), 1064–1086. <https://doi.org/10.1177/0309132518803799>
- Avelino, F. (2017). Power in Sustainability Transitions: Analysing power and (dis)empowerment in transformative change towards sustainability. *Environmental Policy and Governance*, 27(6), 505–520. <https://doi.org/10.1002/eet.1777>
- Avelino, F., Grin, J., Pel, B., & Jhagroe, S. (2016). The politics of sustainability transitions. *Journal of Environmental Policy and Planning*, 18(5), 557–567. <https://doi.org/10.1080/1523908X.2016.1216782>

- Avelino, F., & Wittmayer, J. M. (2016). Shifting Power Relations in Sustainability Transitions: A Multi-actor Perspective. *Journal of Environmental Policy & Planning*, 18(5), 628–649. <https://doi.org/10.1080/1523908X.2015.1112259>
- Avelino, F., & Wittmayer, J. M. (2019). The transformative potential of plural social enterprise: A multi-actor perspective. In P. Eynaud, J.-L. Laville, L. Dos Santos, S. Banerjee, F. Avelino, & L. Hulgård (Eds.), *Theory of social enterprise and pluralism: Social Movements, Solidarity Economy, and Global South* (pp. 193–222). Oxfordshire: Routledge.
- Avelino, F., Wittmayer, J. M., Pel, B., Weaver, P., Dumitru, A., Haxeltine, A., Kemp, R., Jørgensen, M. S., Bauler, T., Ruijsink, S., & O’Riordan, T. (2019). Transformative social innovation and (dis)empowerment. *Technological Forecasting and Social Change*, 145, 195–206. <https://doi.org/10.1016/j.techfore.2017.05.002>
- Bartels, K. P. R., & Wittmayer, J. (2018). *Action Research in Policy Analysis Critical and Relational Approaches to Sustainability Transitions*. Routledge.
- Bauwens, M., Kostakis, V., Troncoso, S., & Utratel, A. M. (2017). *Commons Transition and P2P: A Primer*. Transnational Institute. https://www.tni.org/files/publication-downloads/commons_transition_and_p2p_primer_v9.pdf
- Berkes, F. (1989). *Common property resources: Ecology and community-based sustainable development*. London: Belhaven Press.
- Berkes, F., & Folke, C. (1998). *Linking social and ecological systems: Management practices and social mechanisms for building resilience*. Cambridge: Cambridge University Press.
- Bollier, D. (2007). The growth of the commons paradigm. In C. Hess & E. J. Ostrom (Eds.), *Understanding Knowledge as a Commons: From Theory to Practice* (pp. 27–40). Cambridge and London: MIT Press. http://www.wtf.tw/ref/hess_ostrom_2007.pdf
- Bollier, D. (2015). Licenses for Commoning: The GPL, Creative Commons Licenses and CopyFair. In D. Bollier & S. Helfrich (Eds.), *Patterns of Commoning* (pp. 223–226). Amherst: Off the Common Books.
- Bollier, D., & Helfrich, S. (Eds.). (2012). *The Wealth of the Commons: A world beyond market & state*. Amherst: Levellers Press.
- Bollier, D., & Helfrich, S. (2019). *Free, fair, and alive : The insurgent power of the commons*. Gabriola Island : New Society Publishers.

- Bulkeley, H., Coenen, L., Frantzeskaki, N., Hartmann, C., Kronsell, A., Mai, L., Marvin, S., McCormick, K., Van Steenbergen, F., & Palgan, Y. V. (2016). Urban living labs : Governing urban sustainability transitions. *Current Opinion in Environmental Sustainability*, 22, 13–17. <https://doi.org/10.1016/j.cosust.2017.02.003>
- Castán Broto, V., & Westman, L. (2016). Just sustainabilities and local action: Evidence from 400 flagship initiatives. *Local Environment*, 22(5), 635–650. <https://doi.org/10.1080/13549839.2016.1248379>
- Ciplet, D., & Harrison, J. L. (2019). Transition tensions: Mapping conflicts in movements for a just and sustainable transition. *Environmental Politics*, 1–22. <https://doi.org/10.1080/09644016.2019.1595883>
- Coenen, L., & Truffer, B. (2012). Environmental Innovation and Sustainability Transitions in Regional Studies. *Regional Studies*, 46(1), 1–21. <https://doi.org/10.1080/00343404.2012.646164>
- De Angelis, M. (2017). *Omnia Sunt Communia: On the Commons and the Transformation to Postcapitalism*. London: Zed Books.
- Evers, A., & Laville, J.-L. (2004). *Defining the third sector in Europe*. Edward Elgar Publishing.
- Feola, G., & Him, M. R. (2016). The diffusion of the Transition Network in four European countries. *Environment and Planning A: Economy and Space*, 48(11), 2112–2115. <https://doi.org/10.1177/0308518X16630989>
- Feola, G., & Nunes, R. (2014). Success and failure of grassroots innovations for addressing climate change: The case of the transition movement. *Global Environmental Change*, 24(1), 232–250. <https://doi.org/10.1016/j.gloenvcha.2013.11.011>
- Forward, M. Lou. (2015). OpenCourseWare and Open Education. In D. Bollier & S. Helfrich (Eds.), *Patterns of Commoning* (pp. 186–189). Amherst: Off the Common Books.
- Frantzeskaki, N., & Rok, A. (2018). Co-producing urban sustainability transitions knowledge with community, policy and science. *Environmental Innovation and Societal Transitions*, 29, 47–51. <https://doi.org/10.1016/j.eist.2018.08.001>
- Frantzeskaki, N., Hölscher, K., Bach, M., & Avelino, F. (Eds.). (2018). *Co-creating Sustainable Urban Futures: A Primer on Applying Transition Management in Cities* (Vol. 11). Springer International Publishing. <https://doi.org/10.1007/978-3-319-69273-9>

- Geels, F. W. (2014). Regime Resistance against Low-Carbon Transitions: Introducing Politics and Power into the Multi-Level Perspective. *Theory, Culture & Society*, 31(5), 21–40. <https://doi.org/10.1177/0263276414531627>
- Gorissen, L., Spira, F., Meynaerts, E., Valkering, P., & Frantzeskaki, N. (2018). Moving towards systemic change? Investigating acceleration dynamics of urban sustainability transitions in the Belgian City of Genk. *Journal of Cleaner Production*, 173, 171–185. <https://doi.org/10.1016/j.jclepro.2016.12.052>
- Greiner, C., & Sakdapolrak, P. (2013). Translocality: Concepts, Applications and Emerging Research Perspectives. *Geography Compass*, 7(5), 373–384. <https://doi.org/10.1111/gec3.12048>
- Grin, J., Rotmans, J., & Schot, J. (2010). Transitions to sustainable development: New directions in the study of long term transformative change. In *Transitions to Sustainable Development: New Directions in the Study of Long Term Transformative Change*. Routledge Taylor & Francis Group. <https://doi.org/10.4324/9780203856598>
- Haxeltine, A., Pel, B., Wittmayer, J., Dumitru, A., Kemp, R., Avelino, F., & Haxeltine, A. (2017). Building a middle-range theory of Transformative Social Innovation: Theoretical pitfalls and methodological responses. *European Public & Social Innovation Review (EPSIR)*, 2(1). <https://pub.sinnergiak.org/esir/article/view/51/19>
- Henfrey, T., & Kenrick, J. (2017). Climate, Commons and Hope: The Transition Movement in Global Perspective. In T. Henfrey, G. Maschkowski, & G. Penha-Lopes (Eds.), *Resilience, community action and societal transformation: People, place, practice, power, politics and possibility in transition* (pp. 161–190). East Meon: Permanent Publications.
- Hess, C., & Ostrom, E. J. (2007). Introduction: An Overview of the Knowledge Commons. In C. Hess & E. J. Ostrom (Eds.), *Understanding Knowledge as a Commons: From Theory to Practice* (pp. 3–26). Cambridge and London: MIT Press. http://www.wtf.tw/ref/hess_ostrom_2007.pdf
- Hopwood, B., Mellor, M., & O'Brien, G. (2005). Sustainable development: Mapping different approaches. *Sustainable Development*, 13(1), 38–52. <https://doi.org/10.1002/sd.244>
- Hughes, S., & Hoffmann, M. (2020). Just urban transitions: Toward a research agenda. *Wiley Interdisciplinary Reviews: Climate Change*, 11(3), e640. <https://doi.org/10.1002/wcc.640>

Is the staggeringly profitable business of scientific publishing bad for science? (2017, June 27). Guardian. Retrieved from <https://www.theguardian.com/science/2017/jun/27/profitable-business-scientific-publishing-bad-for-science>

Jhagroe, S. (2016). *Urban Transition Politics: How struggles for sustainability are (re) making urban spaces*. DRIFT, Erasmus University Rotterdam.

Kasemir, B. (2003). *Public participation in sustainability science: A handbook*. Cambridge University Press. <https://pdfs.semanticscholar.org/3782/d7feae6b377eb2b0cc6fba924344175d099a.pdf>

Kotsila, P., Anguelovski, I., Baró, F., Langemeyer, J., Sekulova, F., & Connolly, J. J. T. (2020). Nature-based solutions as discursive tools and contested practices in urban nature's neoliberalisation processes. *Environment and Planning E: Nature and Space*. <https://doi.org/10.1177/2514848620901437>

Large, M. (2010). *Common wealth: For a free, equal, mutual and sustainable society*. Stroud: Hawthorn Press.

Linksvayer, M. (2015). Converting Proprietary Software into a Commons: The Case of LibreOffice. In D. Bollier & S. Helfrich (Eds.), *Patterns of Commoning* (pp. 182–185). Amherst: Off the Common Books.

Longhurst, N., Avelino, F., Wittmayer, J., Weaver, P., Dumitru, A., Hielscher, S., Cipolla, C., Afonso, R., Kunze, I., & Elle, M. (2016). Experimenting with alternative economies: Four emergent counter-narratives of urban economic development. *Current Opinion in Environmental Sustainability*, 22, 69–74. <https://doi.org/10.1016/j.cosust.2017.04.006>

Loorbach, D. (2014, October 31). *To Transition! Governance Panarchy in the New Transformation* [Inaugural Address]. Accepting appointment as Professor of socio-economic transitions; science and practice at Erasmus University Rotterdam. https://drift.eur.nl/wp-content/uploads/2016/12/To_Transition-Loorbach-2014.pdf

Loorbach, D., Frantzeskaki, N., & Avelino, F. (2017). Sustainability Transitions Research: Transforming Science and Practice for Societal Change. *Annual Review of Environment and Resources*, 42(1), 599–626. <https://doi.org/10.1146/annurev-environ-102014-021340>

Loorbach, D., Wittmayer, J. M., Shiroyama, H., Fujino, J., & Mizuguchi, S. (Eds.). (2016). *Governance of Urban Sustainability Transitions: European and Asian*

- Experiences*. Berlin Heidelberg: Springer. <https://doi.org/10.1007/978-4-431-55426-4>
- Loorbach, D., Wittmayer, J., Avelino, F., Von Wirth, T., & Frantzeskaki, N. (2020). Transformative innovation and translocal diffusion. *Environmental Innovation and Societal Transitions*. <https://doi.org/10.1016/j.eist.2020.01.009>
- Markard, J., Raven, R., & Truffer, B. (2012). Sustainability transitions: An emerging field of research and its prospects. *Research Policy*, 41(6), 955–967. <https://doi.org/10.1016/j.respol.2012.02.013>
- Mohai, P., Pellow, D., & Roberts, J. T. (2009). Environmental Justice. *Annual Review of Environment and Resources*, 34(1), 405–430. <https://doi.org/10.1146/annurev-environ-082508-094348>
- Monticelli, L. (2018). Embodying alternatives to capitalism in the 21st century. *TripleC*, 16(2), 501–517. <https://doi.org/10.31269/triplec.v16i2.1032>
- Moore, M.-L., Riddell, D., & Vocisano, D. (2015). Scaling Out, Scaling Up, Scaling Deep: Strategies of Non-profits in Advancing Systemic Social Innovation. *Journal of Corporate Citizenship*, 58, 67–84. <https://doi.org/10.9774/gleaf.4700.2015.ju.00009>
- Moulaert, F., Leubolt, B., Mehmood, A., & MacCallum, D. (2017). *Social Innovation as a Trigger for Transformations: The Role of Research*. European Commission, DG for Research and Innovation. <https://doi.org/10.2777/68949>
- Moulaert, F., MacCallum, D., & Hillier, J. (2013). Social innovation: Intuition, precept, concept, theory and practice. In F. Moulaert, D. MacCallum, A. Mehmood, & A. Hamdouch (Eds.), *The International Handbook on Social Innovation* (pp. 13–24). Edward Elgar Publishing. <https://doi.org/10.4337/9781849809986.00011>
- Neylon, C. (2015). Open Access Pioneer: The Public Library of Science. In D. Bollier & S. Helfrich (Eds.), *Patterns of Commoning* (pp. 179–181). Amherst: Off the Common Books.
- Oakerson, R.J. (1992). Analyzing the Commons: A framework. In D.W. Bromley. (Ed.), *Making the Commons Work: Theory, Practice and Policy* (pp. 41-50). San Francisco, CA: ICS Press.
- Ostrom, E. (1990). *Governing the Commons: The evolution of institutions for collective action*. New York: Cambridge University Press.
- Patterson, J. J., Thaler, T., Hoffmann, M., Hughes, S., Oels, A., Chu, E., Mert, A., Huitema, D., Burch, S., & Jordan, A. (2018). Political feasibility of 1.5 C societal

transformations: the role of social justice. *Current Opinion in Environmental Sustainability*, 31, 1–9. <https://doi.org/10.1016/j.cosust.2017.11.002>

- Pearsall, H., & Anguelovski, I. (2016). Contesting and resisting environmental gentrification: Responses to new paradoxes and challenges for urban environmental justice. *Sociological Research Online*, 21(3). <https://doi.org/10.5153/sro.3979>
- Pel, B. (2016). Trojan horses in transitions: A dialectical perspective on innovation 'capture.' *Journal of Environmental Policy and Planning*, 18(5), 673–691. <https://doi.org/10.1080/1523908X.2015.1090903>
- Pel, B., & Bauler, T. (2014). The Institutionalization of Social Innovation: Between Transformation and Capture. In *TRANSIT Working Paper 2*. http://www.transitsocialinnovation.eu/content/original/Book_covers/Local_PDFs/179_TRANSIT_WorkingPaper2_Governance_Pel141015.pdf
- Pel, B., Wittmayer, J., Dorland, J., & Søggaard Jørgensen, M. (2019). Unpacking the social innovation ecosystem: An empirically grounded typology of empowering network constellations. *Innovation: The European Journal of Social Science Research*, 1–26. <https://doi.org/10.1080/13511610.2019.1705147>
- Pestoff, V. A. (1992). Third sector and co-operative services - An alternative to privatization. *Journal of Consumer Policy*, 15(1), 21–45. <https://doi.org/10.1007/BF01016352>
- Rach, S., Silvestri, G., Avelino, F., Schipper, K., Henfrey, T., Anguelovski, I., Spaeth, P., Bach, M., De Maio, S., Cook, I., Kotsila, P., & Oltmer, M. (2019). *Urbana Arena Design: Methodological guidelines for designing, co-creating and hosting a translocal arena for sustainable and just cities*. In *UrbanA Deliverable 2.1*. https://urbana-arena.eu/wp-content/uploads/2019/07/D2.1_Urbana_Arena-Design_website.pdf
- Reason, P., & Bradbury, H. (2001). *The SAGE Handbook of Action Research: Participative Inquiry and Practice* (2nd ed.). Sage Publications. <https://ikhsanaira.files.wordpress.com/2016/09/action-research-participative-inquiry-and-practice-reasonbradburry.pdf>
- Rijshouwer, E. (2019). *Organizing Democracy Power concentration and self-organizing bureaucratization in the evolution of Wikipedia*. Erasmus Universiteit Rotterdam. <hdl.handle.net/1765/113937>
- Rotmans, J. (2005, June 3). *Societal innovation: Between dream and reality lies complexity*. [Inaugural Speech]. Assuming office as professor of Sustainable System Innovations and Transitions at Erasmus University Rotterdam.

<https://pdfs.semanticscholar.org/340e/3ec277e1532761d9e91575bb8e4a4f813387.pdf>

Schipper, K., Silvestri, G., Wittmayer, J. M., Isoke, J. B., & Kulabako, R. (2019). Handle with care: Navigating the pluriformity of power to enable actionable knowledge for transitions in informal settlements in the global south. *Urban Transformations*, 1(1), 4. <https://doi.org/10.1186/s42854-019-0004-4>

Schlosberg, D. (2007). *Defining Environmental Justice : Theories , Movements and Nature*. Oxford Scholarship. <https://doi.org/10.1093/acprof:oso/9780199286294.001.0001>

Schlosberg, D. (2013). Theorising environmental justice: The expanding sphere of a discourse. *Environmental Politics*, 22(1), 37–55. <https://doi.org/10.1080/09644016.2013.755387>

Seyfang, G., & Haxeltine, A. (2012). Growing Grassroots Innovations: Exploring the Role of Community-Based Initiatives in Governing Sustainable Energy Transitions. *Environment and Planning C: Government and Policy*, 30(3), 381–400. <https://doi.org/10.1068/c10222>

Seyfang, G., & Smith, A. (2007). Grassroots innovations for sustainable development: Towards a new research and policy agenda. *Environmental Politics*, 16(4), 584–603. <https://doi.org/10.1080/09644010701419121>

Smith, A. (2006). Green niches in sustainable development: The case of organic food in the United Kingdom. *Environment and Planning C: Government and Policy*, 24(3), 439–458. <https://doi.org/10.1068/c0514j>

Smith, A. (2007). Translating sustainabilities between green niches and socio-technical regimes. *Technology Analysis and Strategic Management*, 19(4), 427–450. <https://doi.org/10.1080/09537320701403334>

Smith, A., & Raven, R. (2012). What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy*, 41(6), 1025–1036. <https://doi.org/10.1016/j.respol.2011.12.012>

Smith, A., & Stirling, A. (2018). Innovation, sustainability and democracy: An analysis of grassroots contributions. *Journal of Self-Governance and Management Economics*, 6(1), 64. <https://doi.org/10.22381/JSME6120183>

Stavrides, S. (2016). *Common Space: The city as commons*. London: Zed Books.

- Strandburg, K. J., Frischmann, B. M., & Madison, M. J. (2017). The Knowledge Commons Framework. In K. J. Strandburg, B. M. Frischmann, & M. J. Madison (Eds.), *Governing Medical Knowledge Commons* (pp. 9–18). Cambridge: Cambridge University Press. <https://doi.org/10.1017/9781316544587.002>
- Swilling, M., & Anneck, E. (2012). *Just Transitions: Explorations of Sustainability in an Unfair World*. UCT Press.
- Swyngedouw, E., & Heynen, N. C. (2003). Urban Political Ecology, Justice and the Politics of Scale. *Antipode*, 35(5), 898–918. <https://doi.org/https://doi.org/10.1111/j.1467-8330.2003.00364.x>
- Van den Bosch, S. J. M. (2010, September 16). *Transition Experiments: Exploring societal changes towards sustainability*. Erasmus University Rotterdam. Retrieved from hdl.handle.net/1765/20714
- Van Schyndel Kasper, D. Van. (2008). Society for Human Ecology Redefining Community in the Ecovillage. *Human Ecology Review*, 15(1), 12–24.
- Van Steenberg, F., & Schipper, K. (2017, December 11). *Struggling with justice in transition*. DRIFT, Erasmus University Rotterdam. <https://drift.eur.nl/wp-content/uploads/2017/12/Essay-Struggling-with-Justice-in-Transitions.pdf>
- Voß, J. P., Smith, A., & Grin, J. (2009). Designing long-term policy: Rethinking transition management. *Policy Sciences*, 42(4), 275–302. <https://doi.org/10.1007/s11077-009-9103-5>