Connecting the dots by obstacles? Friction and traction ahead for the SRIA urban transitions pathways

UTPS 2016 outcomes and booklet intro

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Introduction

JPI Urban Europe is now happy to present a virtual booklet of think-pieces and papers by some of the participants to prepare for the *Urban Transitions Pathways Symposium*, held on 27 October 2016.

Was it another event to ask how to do urban sustainable transitions and knead it all into one unshapely whole? No, the idea was rather to connect the dots and shape some proto-common ground. The main point at this first symposium was to do this in terms of widening understandings for the conceptual regional clusters in the urban sustainable archipelago.[1]

In urban sustainable transformations, it makes less and less sense to speak of *one* transition pathway. Have a look at the broad range of activities, programmes, projects, and initiatives out there: it is a multiplicity of approaches in urban policy as well as in research and innovation. And they do not necessarily communicate well with each other. Sometimes sectoral silos, sometime centred around technological approaches. A situation that motivated the symposium. Not out of sheer curiosity, but since the urban transition pathways programme requires a sound means of navigating this archipelago.

This situation reflects a notable change in urban sustainability discourse since 2007, which has seen the diversification of the concept of the *sustainable city* into a set of divergent urban imaginaries – including resilient cities, low carbon cities, green growth for cities, smart cities, urban securitisation and urban testbeds.[2] Arguably, the sustainable city

[1] Cf. Bylund (2015). 'Cosmograms in urban development', available at <http://jpi-urbaneurope.eu/cosmograms-in-urban-development/>

[2] Hodson, M. & Marvin, S. (Eds.). (2014). *After sustainable cities?* London: Routledge.

Figure 1: The Urban Transitions Pathways Symposium 2016. Photo: Centre For Facilitation

was an uneasy gathering of approaches even before 2007 and the curdling of 'urban sustainability' began long before this.[3]

Nowadays both the research and innovation and the policy communities appear to gravitate around different urban imaginaries – smart, low carbon, resilient, etc. – based on quite different transitions pathways to future sustainable urban areas. Yet the societal effects and intellectual implications of this fragmentation have been ignored and it raises *the challenge of how to integrate and connect urban research and innovation for urban transitions pathways.*

At the moment, there seems to be relatively little interaction or debate between the different communities active in the various approaches, with almost no overall discussion as to whether the interactions between logics and approaches are compatible or in tension

[3] Cf. e.g. Batty, S. (2001). 'The Politics of Sustainable Development'. In A. Layard, S. Davoudi, & S. Batty (Eds.), *Planning for a Sustainable Future* (pp. 19-32). London, New York: Spon Press; Hall, P. (1999). *Cities in Civilization: Culture, Innovation, and Urban Order*. London: Phoenix Giant.

with each other and little understanding of whether they are consistent with or displace urban sustainability.

Hence, while the JPI Urban Europe Strategic Research and Innovation Agenda (SRIA)[4] sets out to support urban transitioning towards sustainable and liveable urban futures, the landscape of policy and activities in practice is fragmented and relatively disconnected. A situation where any funding or focus on one area presents great risks of producing detrimental effects for other areas and overall urban sustainability and urban societal challenges – so called *wicked issues*. *This situation poses a great risk to public (and private) investments in efforts to realise urban sustainable and liveable futures.*

In order to shape programming to implement the SRIA transition pathways, the Scientific Advisory Board (SAB),[5] the Urban Europe Research Alliance (UERA),[6] projects in the JPI Urban Europe portfolio[7] as well as a selection of researchers outside the JPI Urban Europe 'family'[8] were invited in October 2016 to tackle this concern around current common ground and connecting the dots. Below follows the SAB's reflections and conclusions drawing upon this event.

UTPS 2016 Reflections-on-the-go

The *Urban Transitions Pathways Symposium* design was not a conventional paper-presentation-discussion. It was set to interweave and create as much dialogue and exchange as possible in a context where participants do not necessarily understand each others' technical vocabularies. Hence, a main objective was to get all participants engaged from the first moment and to deliver snapshot documents of the exchanges. The reason behind this approach was to prompt participants to break out of comfort zones and System 1-thinking [9]– even if academics and researchers are fairly good at System 2, but as they too are humans, they are just as prone to get stuck with their darlings... So we hired Lucy Brownsdon and Christine Bell at the Centre For Facilitation[10] to stir things up a bit.

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[4] http://jpi-urbaneurope.eu/about/sria/

[5] http://jpi-urbaneurope.eu/governance/scientific-advisory-board/

[6] http://jpi-urbaneurope.eu/stakeholders-partners/uera/

[7] http://jpi-urbaneurope.eu/projects/introduction-test/

[8] We are especially grateful to URBIS Project and David Ludlow for the opportunity in October 2016 to discuss related issues among FP7, Horizon 2020, and JPI Urban Europe projects on smart governance in anticipation of the symposium.

[9] Kahneman, D. (2011). *Thinking , fast and slow.* New York: Farrar, Straus and Giroux.

[10] http://www.centreforfacilitation.co.uk/

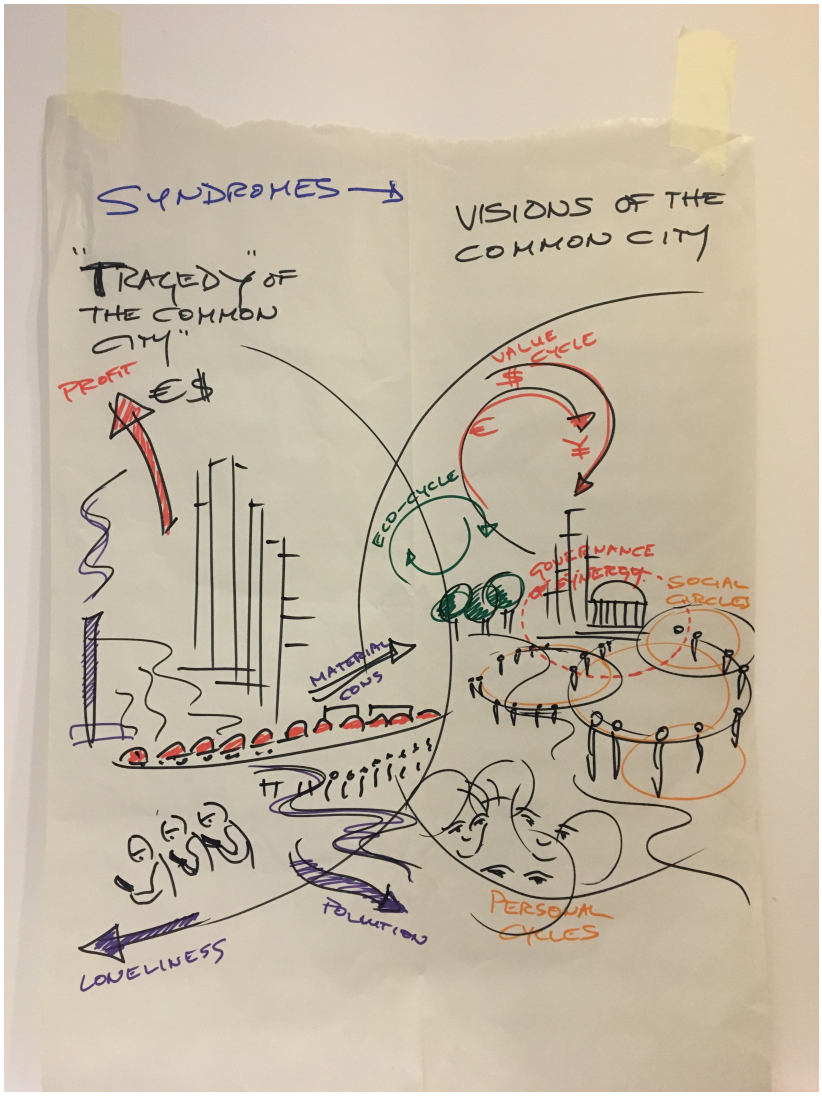

Figure 2: Urban transitions articulation by Joe Ravetz. Photo: Centre For Facilitation

However, this approach also discourages any simple protocol and substantial documentation of the event. But here are the symposium outcomes, in our interpretation – there may be differing ones to different participants.

Take home messages delivered to JPI Urban Europe

Reflecting on the flow of debate and discussions at the symposium, one thing is quite clear: it is still too early for the research and innovation community to shape the outlines of a common model.

The big issue currently is not about inventing or developing new technologies or approaches, or even more conceptual understanding (understood as a 'delegation of knowledge generation to academic research').

The challenge now is firmly centred in that transitions is a transdisciplinary issue, rather than having conventional research and innovation shaping solutions which are queued in line for implementation. The symposium thus showed a strong indication in the research and innovation community to step up support for co-creative transformation and operationalisation – and this is not to be confused with 'roll-out'! Urban transitions are understood as a question of utilise and change urban societal organisation. One reasonable interpretation of this is a call for public sector innovation and capacity building in urban planning, management, and (regional, national, EU, and international) policy making for urban transitions.

However, the point here is not less research but more support for transdisciplinary projects/processes than conventional typically secluded and linear approaches where 'white-coats' only observe and reflect at a distance. Knowledge integration for urban transitions will not really work as a plug-and-play device. Rather, research and innovation to support capacity building in public administration (urban governance, planning, and management) is required to actively shape transitions. It requires different forms and a more appropriate knowledge practice centred on performativity in governance dynamics for sustainable urban innovation ecosystems.

Furthermore, in order for urban transitions not be simply reduced to a technocratic exercise, it is pertinent that capacity building also relates to increased and augmented civil society engagement and activities, for instance as social innovation approaches to urban challenges. The challenge here is roughly located in a nexus of governance, participation, trust, and knowledge integration. As a point of departure, the nexus can be imagined as traction and friction.

This is in stark contrast to the 'traditional' frame focusing on interrelations between social-ecological-economical issues, which seems unable to cope with or even conducive to the current fragmentation.

Finally, there is also a trace of indications as to what capacities/skills/competences are needed to get on with it. For instance, there are strong signals in statements about increased practical knowledge on how to negotiate/compromise urban transition strategies and the pragmatics of transitions, emergence, and becoming.

Another reflection is on the slight difference – in a positive sense – between propositions in the papers and the preliminary outcomes drawn from the symposium: very differ-

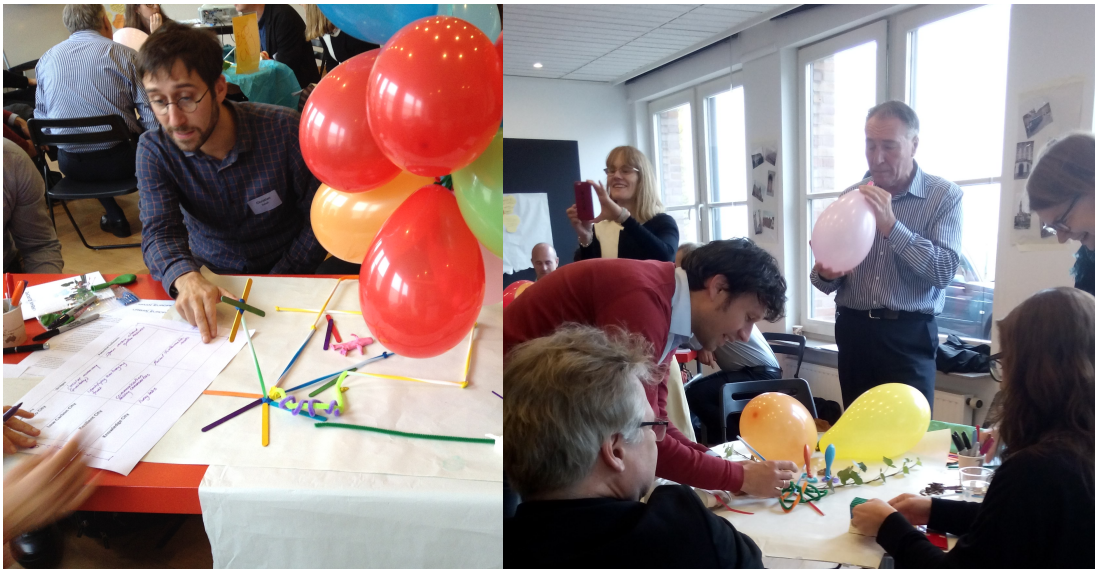

Figure 3: De-coding the five cities exercise. Photo: Centre For Facilitation

ent tropes and areas. The former highly anchored in 'darlings', whereas the latter tended to locate the challenge of connecting the dots more 'outside' academic conceptual production or problem outlining practices.

Emerging themes from Bridges and Collisions

The exercise called Bridges and Collisions was designed to articulate common ground in terms of how the movement towards a sample of five types of cities connects but also builds tensions (both constructive as well as counterproductive) in between them. The cities were a transplant of the set chosen by De Jong et al. as an approximation of the main conceptual approaches in the contemporary field of sustainable urban transformations. The groups around each city were not composed only of insiders to each city approach. Each matrix presents the point of view from one of the five types of cities.

Themes emerging in the exercise on *De-coding the five cities*:[11]

- Models and urban sprawl
- Protection of the city boundaries
- Reluctance to engage with retrofit
- Social capital

[11] Many thanks to Christine Bell at Centre For Facilitation for the opportunity to decode the exercise and support in collating the material!

Models and Urban Sprawl

The juxtaposition of different evolved models in one urban sprawl area may produce conflicts and this could be seen very visually in our workshop space. How will the Smart City and Low Carbon Cities feel when their neat city models are in close proximity to the much more messy structures of the other three cities?

In the room the Eco City and the Smart City were situated next to each other, and the contrast between these two approaches to the development of the city could be seen very clearly. The Eco City is almost chaotic in its structure, with recycled elements being used for functional purposes but this is not a clean modern look and may unsettle some residents. The Eco City will encourage recycling, and reuse of elements which can lead to a landscape which is less responsive to central control. In reality it will be a contrast to the more organised elements of the Smart City.

Protection of the City Boundaries

Several cities made reference to 'invasion' and protection of the city boundaries which has historical reference too – older cities still often have city walls but these are for a very small historical centre, the modern city is more of an urban sprawl.

The interesting question is about where the city begins and ends and whether it is possible to 'protect' your city. It would be interesting to explore what would happen if different models of cities were adopted in one of our larger urban sprawl areas and what happens in the border areas of each of the cities. How does the low carbon city stop pollution coming across from other cities?

There was a sense in many of our cities about their vulnerable structures. This was more obvious with the Smart City which displayed its vulnerable nature by the large 'cloud' structure which was highly visible and open to attack. Does this represent a real vulnerability of having so much stuff in a place that we cannot visualise but we know is important? How would a Smart City protect some of its technological capacity and storage?

Reluctance to Engage with Retro Fit

The groups were asked to create models based on how Prague would look /function in 10 years' time. Implied was a sense of the need to fit the new concepts onto the existing city functions and structures.

This was a short activity and the groups had very limited time to work on their concepts of a model of a city. It is however very interesting to note that only one model (Low Carbon City) made a real use of the map of Prague and the structure of existing Prague. It would be interesting to see what would have happened if more time had be given to the groups at the beginning of the activity to explore and understand the existing structures of Prague.

Figure 4: Articulating bridges and collisions between city logics. Photo: Centre For Facilitation

The big challenge for urban development is how to make use of the existing cities and retrofit them for the new ways – the fact that four of our groups choose not to engage with the existing structures of Prague in their modelling is interesting. This may be an indicator of a real barrier to meaningful urban development if all the discussion is based on creating these city models from a 'blank sheet' instead of working on the application of the model to the existing city structures and population. It could be that people simply cannot manage the complexity of applying conceptual cities to real cities and so the debate does not move out of the academic sphere to a level where politicians and local planners can really engage with it

Social Capital

It was noted that many of our city model presentations spoke of social capital and the need to engage people in the development of their city. This is always a dilemma for city planners, how do you support people to find time to engage in the development of their cities with long working hours and commuting being part of the urban lifestyle? It was interesting that many of the participants would be unable to spend much time themselves in

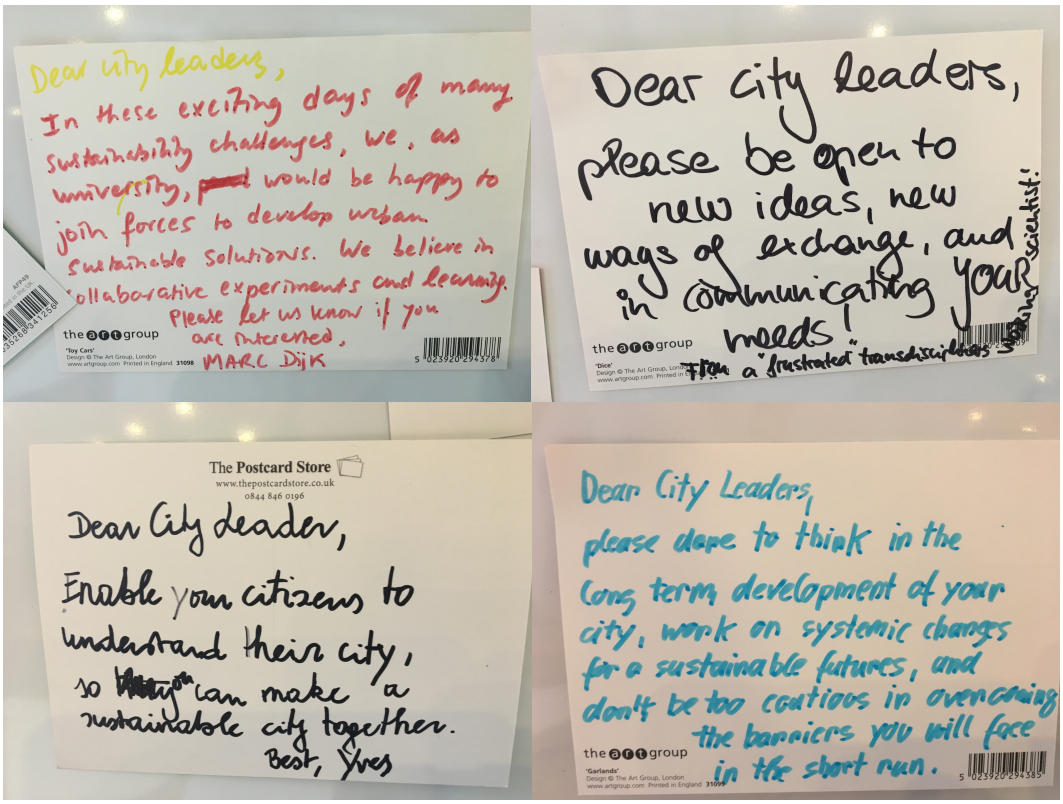

Figure 5: Postcards from symposium participants to city leaders. Photo: Centre For Facilitation

social engagement in their own cities because they were travelling so much to this and other events. Several people left early for flights and trains... Yet their models speak of a 'present community' who can get involved in the development of the city. How can this need for social capital engagement be possible with our current patterns of urban living?

Reflections on the think pieces

Taken together, all the think pieces (the papers in the virtual booklet this is an introduction to) were submitted prior to the symposium. They provide some insight into specific areas and present a snapshot of some of the diversity – and sometimes non-communication – between various urban imaginaries or logics.

The collection of texts approximately reflect the following fields:

- Transition theory debate on (urban) dynamics and niche potential
- Urban energy transitions, turning around systems approaches, grids, and households

- Urban political ecology, approaches to tackle sustainable and resilient urban development
- Indicators, including resilience framed approaches, Agenda 2030 Sustainable Development Goals and Habitat III New Urban Agenda
- Urban planning approach, including socio-economic concerns

One thing to note on the different logics and fields is that they commonly do not imagine a city or urban setting where the others are also active, so to speak (compare with the Bridges and Collisions reading above!). It is as if they are alone in 'the real'. Hence, one of the de-fragmentation efforts by the Urban Transitions Pathways Symposium is to raise awareness of simultaneously existing imageries and logics among those not accustomed to take this into account. Since, from an urban innovation ecosystems point of view, reality is crowded precisely as in how Hägerstrand understood geography:

> The purpose of working with the type of core area I have suggested could hardly be to discover adherence to laws in the common sense – we have learnt that by now. Rather, it is a question of understanding the principles for how the ideal is deformed by the crowded reality. Seen from this perspective, geography's core area is the study of the struggle for power over existences' and events' entry into space and time.[12]

Another noticeable difference is whether the approaches in the texts articulate a specificity of 'urban settings' or, on the other hand, perceive 'urban' as just another level of societal ordering (not acknowledging the complexity by close proximity or relationality, etc.).

Connecting the dots in urban transitions may call for conceptual plasticity. Such as e.g. looking at sustainability as a platform or boundary object that can accommodate and enable communication between heterogeneous actors and diverse interests?[13] A multiple object that still has some intersectional living reference ('singular')?[14]

Interesting is how the ages old tension between common characteristics and site-specific particularities plays out. Of course, this is heavily influenced by the agenda for the symposium that explicitly called for reflections on common ground in urban sustainable transitions approaches. This tension is also framed by the calls for systemic change instead

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[12] Hägerstrand, T. (1986). Den geografiska traditionens kärnområde. *Svensk Geografisk Årsbok*, *62*, 38-43; p. 43, my translation.

[13] Cf. e.g. Evans, J., & Jones, P. (2008). Rethinking sustainable urban regeneration: Ambiguity, creativity, and the shared territory. *Environment and Planning A*, *40*, 1416-1434; Star, L. S., & Griesemer, J. R. (1989). Institutional Ecology, "Translations" and Boundary Objects: Amateurs and Professionals in Berkeley's Museum of Vertebrate Zoology, 1907–39. *Social Studies of Science*, *19*(3), 387-420.

[14] Cf. Mol, A. (2002). The Body Multiple: Ontology in Medical Practice. Durham: Duke University Press.

of (the current situation with) scattered incremental optimisation. Different approaches simply seem to accommodate this tension in different ways, which then perhaps becomes something that hinders connectivity between them?

Infra-notions to connect dots: an issue of *conviviality*? The challenge quite clearly is how different logics can co-exists while we at the same tackle potential wicked issues as well as out-of-hand friction that leads to conflict or antagonism.

List of think pieces

Including those not available in the booklet collection.

Capezzali et al 'Energy networks interoperability as a key to increased sustainability in cities'

The IntegrCity project will shape common ground among 1) different energy sectors, 2) among local stakeholders, and 3) policy; through interoperability (smart integrated solutions combining storage and multi-energy conversion systems). Energy and economics for infrastructure optimisation, to make way for renewables or more energy-efficient solutions. Three implementation test-cases are presented: Stockholm, Vevey, and Geneva.

Chiarini & Cappellaro 'A common protocol to rethinking transition efficacy'

Discourse-based approach to the common protocol. Includes an assessment/mapping matrix on what to keep, to further from the current situation in transition policy or activities. That would produce a framework for a *Transition Common Protocol* (TCP).

Dijk 'Towards a typology of urban transition and non-transition pathways'

Proposal and outline of a typology of five generic pathways for urban transition and non-transition relative to levels of scaling up and niche disruption. This by outlining the role of urban living labs (ULL) and pilot activities in niche innovation dynamics. Common ground in the various socio-technical transitions approaches is the appreciation of niches to disrupt regimes or established and dominant socio-technical orders: Dijk foregrounds a kind of barrier to scale up from local settings (ULL or pilots) that turns around the increasing complexity and generation of externalities. This would also be plausible if scale up was understood as 'scale across' and not just increased size or range? Another kind is something akin to reductionism by mobilisation? That when knowledges acquired in e.g. ULL, the practical movement/transfer means that some parts cannot follow (the translation to a mobile betrays the richness).

Engblom 'JPI Urban Europe'

Urbanism as a way to urbanise by sustainable growth and the importance of understanding *who* urbanisation is shaped *for*. Urbanism is the main articulation of global devel-

opment currently, connects and makes denser various parts of human life, complexifies things. This is also foregrounded by emerging lifestyles that are very different and diverse than what was perceived as 20th Century Welfare State nuclear families and work/leisure distinctions, often entailing a multitude of heterogeneous world-views in close proximity, etc. A crucial element in this proposition is to understand urbanisation as a local and global – rather than preeminently national – issue. Since nation-states interests are still more dominated by dividing along national boundaries than enabling collaboration and international cooperation. In this regard, a tendency is for cities (and perhaps urban areas) to take lead and become more pro-active in joining up and act (and the nation-state level is lagging behind). This action and learning requires support and can be 'tapped' to shape common ground. Building along human rights, cities could have a set of universal codes, Engblom ultimately suggests as the guidelines for urban sustainable transition pathways.

Finnveden and Gunnarsson-Östling 'Sustainable development goals for cities'

A proposal to use the UN Agenda 2030 *Sustainable Development Goals* (SDGs) to shape common ground in urban sustainable transitions pathways. Since, on the one hand, sustainable development has hitherto been too plastic notion – too wide a range for different interpretations as well as generating parallel sustainability discourses. On the other hand, 'clear goals are often lacking in [urban and regional] planning processes'. The proposition is centred around SDG 11, but includes parts of relevant other SDGs.

Goraczek et al. 'SmartGov project: shaping ground and using new methods for decision making processes in Smart Sustainable Cities'

With a departure point in the smart city, the paper proposes a very interesting effort to develop urban governance issues in the 'smart sustainable city' approach – particularly the relation between participatory governance and sustainability transition paths in this approach. On the side of smart governance, the paper foregrounds a lack of 'holistic approaches' to urban sustainable development, as it often seems be reduced to ICT enabling smart governance. The idea is to device a tool to create policy scenarios using social media and open data; and by this to support participatory devices in urban governance understood as the policy-making process and urban planning.

Hodson & Marvin 'Beyond sustainable cities'

Techno-economic valuation is about low hanging fruits from a business model point of view. The paper discuss how 'new generation' of city logics and their post-2008 development means that justice and equity issues in sustainability are sidelined. At the core of the Brundtland version of sustainable development, there is an implicit reliance on economic growth (the conventional and linear kind). It was underpinning much of the transition activities. Since 2008 and the dawn of the 'age of austerity', however, this financing

stream has been severely reduced. Important to reflect on what and how urban sustainability is now operationalised. One take the paper seem to suggest is that the different logics reflect concerns with specific urban ecologies (issue oriented, rather than sector oriented as by the three pillars).

Juhasz-Nagy et al. 'Holistic planning approaches – starting with common ground'

Energy oriented sustainability activities requires more integration, generally, since wicked issues may irrupt due to activities in other areas of sustainable development (e.g. transport/mobility, quality of life). Inclusive and integrated agenda setting is important to avoid this, since it is too difficult to negotiate technical and non-technical parameters at later stages. Non-technical parameters are generally displaced or unaccounted for in urban energy efficiency projects and physical planning concerning energy in neighbourhoods. The paper also seems to suggest that technical issues are not well enough comprehended either by project teams and stakeholders.

Kapeller & Biegelbauer 'How to decide on what to do?'

In urban governance for sustainable transitions, not only content requires some shared understanding but also processes for decision-making is equally important. Case studies on alternative energy provision and plant localisation negotiations. The use of referenda and accompanying political debates are ideal, but in practice may be counter-productive. Urban transitions depend on decision-making, which in turn entails a process that requires a common departure point in terms of understandings.

Krellenberg et al 'Urban transformations'

Urban transformations are more than transitions, since it is radical rather than 'incremental changes within a system'. Stepwise improvements – transition – are commonly made in specific dimensions, which generates trade-offs and wicked issues in the complex urban settings. Hence, integrated urban sustainable development requires more comprehensive change across sectors and fields of activity. Urban transformations are highly particular to local settings. Hence, the approach is scalable but not the specific solutions.

Kubeczko et al. 'Urban innovation zones as instruments to support urban transition pathways'

The paper proposes a new policy tool to support urban transition processes and governance. To speed up 'the process of innovation, upscaling, transfer, replication and large-scale implementation of new solutions' for urban transitions. Urban Innovation Zones is a pooling of different but aligned kinds of resources and supports for innovation in a specific arena.

Lindholm 'Over and over again'

The paper dives into a discussion on less benign aspects of path dependency, since a pathway is also about discursively normalising and habituate certain gestures to be taken for granted, which chimes badly with uncertainties ahead in sustainability transformations. The common ground to shape urban transition appropriate knowledges proposed by the paper revolves around a 'conceptualization and contextualization of site specific social, spatial and material properties'. Inherent problem hitherto in sustainability is the lack of experimental experience outside academic spaces proper.

Ludlow 'Shaping common ground in urban sustainability?'

The paper propose that common ground can be found in the common drivers of urban change (European as well as globally), since these drivers then produce common challenges and, hence, common solutions would be plausible. Among other issues, this is evident in urban governance 'where exchange of good practice between governance agencies is frequently the basis for viable innovations in land use management diverse locations'. The paper seems to suggest that it is the interconnectedness of urban 'social, economic and environmental challenges' in urban management that shapes barriers to deliver more sustainable development.

Meyer et al. 'Urban pancakes for system change'

Urban settings, since they are complex in terms of 'regimes' (systems), are ideal for experimentation on systemic change, and hence to accelerate sustainable transitions in general. Complex in that systems are commonly stacked and intertwined. Systemic change requires disruptive innovation. The Pancake Method is an approach to experimentation set up to work in complex settings and to open for disruptive innovation while allowing for shared risk, shared ownership, and shared funding. The dynamic activated by the method is different from implementation in that 'the interaction this method brings about, is so complex and unpredictable, that it cannot be designed up front.' Urban living labs are not enough, even if a step in the right direction, since they rarely amount to full ownership by 'end-users' to the resulting products or adde value generated. They are still mainly product and service innovation oriented.

Piñeda Revilla et al. 'CODALoop'

To develop a framework that will enable fundamental and lasting behavioural change, and by this to support a paradigm shift in *community* energy use patterns. Because energy efficiency seems not to keep up with households' energy behaviour and hence not an effective enough strategy anymore. As in the case of smart meters: while they support an informed decision making on energy uses that are more energy efficient (avoiding peak de-

mand phases, etc.), the other side of that coin is that they also serve to show the success of household energy efficiency and hence to invite 'energy rebound'.

Ravetz 'From "smart" to "wise"'

Any typical urban challenge involve multiple systems with different systemic dynamics and different interconnections per challenge. The paper identifies a lack of knowledge (methods, tools, design competence) to follow or understand these interactions and their synergies. This amounts to a lack of capacity to progress any of the city logics and tackle wicked issues. Synergistics that points to an urban 'social mind', a strategic 'collective intelligence' – to move from smart city to *wise city* programmes. Entails the application of the wider-deeper-longer framework to assess potential and outline requirons. Also, in the synergistics approach, the paper suggests that urban transitions is a path from present syndromes to future synergies.

Rusche 'Green infrastructure'

Strategically planned urban green infrastructure is key to tackle the challenge of sustainable and resilient urban futures. Green infrastructure has the potential to tackle ecnomic-social-environmental issues altogether.

Scholl et al. 'City labs as instruments to shape common ground in urban sustainability'

The paper discusses urban living labs (ULL) as a means to achieve parts of urban sustainability transformations. However, they are at present a contingent set of practices and it is useful to start making analytical (conceptual) distinctions. To better understand the role ULL may have in urban transitions as well as to articulate concerns and cautions with the approach. Example in *city labs*, a hybrid organisational form between local authority (public administration) and civil society.

Smagacz-Poziemska 'Shaping common ground in urban sustainability'

The paper focus on articulating a caution on inequalities as (negative) externalities by various city logics, which is not immediately perceivable in data and statistics (i.e. non-neutral principle) as well as questioning the austerity urbanism approach (policy transfer and 'download').

van Lier et al. 'MAMCA'

Smart governance can be achieved by multi-stakeholder co-creation in dynamic urban logistics. The paper discuss an approach to actively involve citizens in urban transitions and to shape acceptable solutions to challenges.