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Governance of urban transitions: towards sustainable resource efficient urban infrastructures[*]

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Abstract

The transition to sustainable resource efficient cities calls for new governance arrangements. The awareness that the doubling of the global urban population will result in unsustainable levels of demand for natural resources requires changes in the existing socio-technical systems. Domestic material consumption could go up from 40 billion tons in 2010, to 89 billion tons by 2050. While there are a number of socio-technical alternatives that could result in significant improvements in the resource efficiency of urban systems in developed and developing countries (specifically bus-rapid transit, district energy systems and green buildings), we need to rethink the urban governance arrangements to get to this alternative pathway. We note modes of urban governance have changed over the past century as economic and urban development paradigms have shifted at the national and global levels. This time round we identify cities as leading actors in the transition to more sustainable modes of production and consumption as articulated in the Sustainable Development Goals. This has resulted in a surge of urban experimentation across all world regions, both North and South. Building on this empirically observable trend we suggest this can also be seen as a building block of a new urban governance paradigm. An 'entrepreneurial urban governance' is proposed that envisages an active and goal-setting role for the state, but in ways that allows broader coalitions of urban 'agents of change' to emerge. This entrepreneurial urban governance fosters and promotes experimentation rather than suppressing the myriad of such initiatives across the globe, and connects to global city networks for systemic learning between cities. Experimentation needs to result in a contextually appropriate balance between economic, social, technological and sustainable development.

Introduction

The other papers in this focus issue established that it is possible to imagine more inclusive and resource efficient urban metabolic configurations. Baynes and Musango (2017) showed that if we fail to re-invent urbanism to achieve more resource efficient urban metabolic configurations, urban domestic material consumption (DMC) could more than double from 40 bt y^{-1} in 2010 to 89 bt y^{-1} by 2050, and urban land cover could increase by 150 per cent from nearly 1 million km^2, to 2.5 million km^2 by 2050 with much of this expansion encroaching onto some of the world's most productive food-producing land (Hajer *et al* 2015). Salat (2016) demonstrated that if polycentric space-economies are strategically intensified via the formation of a hierarchy of high density urban nodes interconnected by efficient and affordable mass transit in each city, this could increase urban resource productivity by a factor of 10. Bergesen *et al* (2017) confirmed the analysis by Salat by showing that if resource efficient bus-rapid transit, district energy systems (DES) and green buildings became the norm in strategically intensified urban metabolic configurations, resource efficiencies of 44%–66% within these respective sectors could be achieved compared to the baseline. Using case studies drawn from India, China and the USA, Tong *et al* (2017) confirmed the overall

[*] A full and detailed elaboration of the arguments and sources for this article can be found in chapter 6 of Swilling M *et al* 2017 *Resource Requirements of Future Urbanization* (Paris: International Resource Panel).

analysis by Salat (2016), and Bergesen *et al* (2017) by showing how resource sharing across a range of interconnected infrastructure sectors can result in significant resource efficiencies with—in some cases—inclusionary implications. There is nothing new about these alternatives; what is new is the quantification of the resource efficiencies compared to a baseline. Sustainability-oriented urban transitions, however, will not happen in a socio-political vacuum—they will be the emergent outcome of a change in the dynamics of urban governance. This paper suggests an 'entrepreneurial urban governance' is best suited to deliver on the sustainability challenge of cities.

Informational, human and sustainable development in the Urban Anthropocene

In a recent volume, Castells and Himanen (2014) synthesized the great intellectual traditions of the past century (especially the advances made by the United Nations Development Programme's annual Human Development Reports that derive from the thinking of Nobel laureate Amartya Sen) to provide an appropriate definition of development for a world that has committed itself to the Sustainable Development Goals (SDGs), with initial moves to go beyond GDP as the only measure of development:

> 'Development... is the self-defined social process by which humans enhance their wellbeing and assert their dignity while creating the structural conditions for the sustainability of the process of development itself.' (Castells and Himanen 2014.)

Development conceived in this way, however, is not simply the rational outcome of good public policies implemented by formal rule-based bureaucracies. The world has become more complex than that. Nowadays various 'agents of change' hold the capacity and willingness to steer events in a different direction, and can include a far wider range of actors, including those from the business community, the world of NGOs and indeed the world of academics. So instead, within each country there is a specific set of social forces that contest the meaning, directionality and implementation of development priorities and actions and particular 'coalitions' of actors that try and influence the course of events.

From the late 1970s onwards, cities were restructured to enable financial flows into elite enclaves, urban regeneration for gentrification, urban sprawl and infrastructure development in resource-intensive ways (Graham and Marvin 2001). The new focus on smart cities will not be sufficient: its algorithmic governance approach is focussed too narrowly on productivity, competitiveness and technology (Luque *et al* 2013) and is focussed more on selling systems to existing urban governments than on creating enabling structures for more diverse, equitable and integrated urban environments. Where state interventions have been aimed at promoting the 'synergistic effects leading to both higher productivity growth and greater human wellbeing' (Castells and Himanen 2014), the results have been more inclusive and redistributive. These 'synergistic effects' emerge when the gains from informationalism get redirected into investments in human and sustainable development, rather than accumulating as excessive financialisation of the economy.

A liveable, well-grounded urbanism is where informational and human development are in balance. However, in a world of rising carbon and resource costs, unless this balance is achieved on the basis of resource efficient urban metabolisms, the gains made could be undermined by the negative impacts of climate change, resource depletion and ecosystem breakdown. A liveable, well-grounded, *sustainable* urbanism must, therefore, also be resource efficient. All this has major implications for how we understand urban governance.

Metabolic perspective on changing urbanisms

In order to get a handle on how to address the quantified DMC of coming urbanisation it is important to recognise that the configuration of urban form and infrastructure, functions and metabolisms have changed several times and quite radically over the past 150 years. Appreciating this historical track record makes it easier to understand what may be emerging during the post-financial crisis era (that started in 2007) as cities come to terms with the challenges of social inclusion and ecological sustainability.

Swilling and Annecke (2012) refer to five urban metabolic configurations that reflect different interactions between economic productivity, wellbeing and resource use as inclusive urbanism, splintered urbanism, slum urbanism, green urbanism and liveable urbanism. Each corresponds to a specific configuration of infrastructures, flows, economic dynamics and ways of life, as follows:

- Inclusive urbanism reached maturity during the 1930s–1970s era of Keynesian welfarism characterised by the vision of universal access to publicly delivered cross-subsidised urban services for all, and based on the assumption that resources are unlimited.

- Splintered urbanism was the spatial expression of neo-liberalism from the late 1970s onwards and entailed a preference for commoditized privately delivered urban services on a cost recovery basis, and again ignoring resource constraints.

- Slum urbanism emerged from the quiet encroachments of millions of urbanizing households seeking access to scarce resources in the rapidly growing cities of the global South with the onset

of the second urbanization wave in the 1950s, accelerating each decade into the current conjuncture.

- Smart or 'green' urbanism reflects the aspirations of the global technology companies that have built on and extended the strategic vision of the 'green buildings' movement. 'Smart' and 'green' urbanism have established the principle of 'minimising environmental damage' in the way urban developments are designed. The problem, of course, is that the positive goal of sustainable planetary systems cannot be achieved by minimising damage, which may better be described as retarded collapse.

- Finally, liveable urbanism refers to the aspiration to go beyond 'minimising damage' to 'restoration' of nature by the way urban developments are designed and inserted into sustainable bio-economic regions in ways that enhance both productivity and wellbeing.

These five urban metabolic configurations are effectively all alternative visions of urbanism that rest on specific urban metabolic configurations, some historical, some anticipatory. However, they never exist in their pure form. What is still not addressed are the changing *modes of urban governance* over time that both shape and get shaped by these changing urban metabolic configurations. A particular mode of urban governance can be defined as a specific coalition of city-level forces assembled within a multi-level governance context in pursuit of a particular urban vision, and specifically the way urban infrastructures are designed and configured to achieve wellbeing and access natural resource flows.

Statistical evidence massively supports the thesis that modern urban patterns resulted in drastic increases in resource requirements. Undoubtedly, it was the combustion engine and the car-oriented techno-infrastructure related to it that was a key catalyst of the resource-intensive 'great acceleration' that occurred after WWII. Increasingly, sprawled out urban forms inter-connected by cheap car-based intra-urban mobility were the result in cities with modern aspirations. It was this 'great acceleration' that drove the transition from a dependence on biomass to a dependence on non-renewables from the 1950s onwards (Krausmann *et al* 2009). In terms of governance it was tied up to a managerial and hierarchical model of city planning, epitomized by Robert Moses, the master planner of New York, or Baron Haussman from 19th century Paris.

The decline of human development imperatives in favour of productivity and growth during the neoliberal era from the 1980s onwards would not have been possible without computerisation (Castells 1997). As China became the world's manufacturer (using cheap disciplined labour), its financial surpluses were transformed into the credit that drove the consumer boom

and massive escalations in urban property values across most economies during the decade leading up to the crash in 2007/8 (Stiglitz 2010). But this financialised, short-term oriented form of global capitalism is now haunted by the negative side effects it produced. As the United Nations Environment Programme's Green Economy Report put it:

> 'The causes of these crises vary, but at a fundamental level they all share a common feature: the gross misallocation of capital. During the last two decades, much capital was poured into property, fossil fuels and structured financial assets with embedded derivatives. However, relatively little in comparison was invested in renewable energy, energy efficiency, public transportation, sustainable agriculture, ecosystem and biodiversity protection, and land and water conservation.' (United Nations Environment Programme 2011.)

As discussed in more detail later, the urban transformations instigated by the economic transition from welfarist/Keynesian/mass production to neo-liberal/post-Fordist/debt-funded consumerism resulted in far-reaching changes in urban governance. These changes occurred during the 1980s and 1990s with respect to city-level state structures, modes of governance and types of political leadership. Significantly, since 2009 a new wave of changes is underway as a new ecology of actors emerge who share in one way or another the notion that urban futures will depend on the reconfiguration of urban infrastructures to ensure that urban systems are in some way more sustainable (in social and ecological terms) than they were before. SDG number 11 best expresses this aspiration to rebalance urban economic productivity, human wellbeing and sustainable resource use in cities. Once again, state structures, modes of governance and political leadership can be expected to transform in what can now be referred to as the information-based 'SDG era'.

Urban governance and infrastructure

A history of changing modes of urban governance can help to build an imagination of new configurations of governance that are fit-for-purpose. Following and adapting DiGaetano and Strom (2003), there are five modes of urban governance, plus a sixth that they do not refer to. None of them exist in their pure form.

- *Clientelistic* modes form around powerful political personalities who dispense patronage for material gain by special interests.

- *Corporatist* modes form around formal ruling coalitions of powerful local political elites who work closely with business and/or community interests to steer urban development in accordance with clearly defined negotiated programmes.

Table 1. Modes of governance (adapted from DiGaetano and Strom 2003).

	Clientelistic	Corporatist	Managerial	Pluralist	Popular democratic	Entrepreneurial
Governing relations	Particularistic, personalised, exchange	Exclusionary negotiation	Formal, bureaucratic/ contractual	Brokering or mediating among competing interests	Inclusionary negotiation	Government-led partnerships
Governing logic	Reciprocity	Consensus building	Authoritative decision-making	Conflict management	Mobilization of popular support	Targets, urban experimentation and learning
Key decision makers	Politicians and clients	Politicians and powerful civic leaders	Politicians and civil servants	Politicians and organized interests	Politicians and community movement leaders	Politicians, entrepreneurs, researchers, innovators
Political objectives	Material	Purposive	Material	Purposive	Symbolic	Change
Correlations with type of urbanisms	Splintered/slum	Splintered/ inclusive	Inclusive	Inclusive/splintered	Inclusive	Smart-green or liveable

- *Managerial* modes are based on formal bureaucratic systems and rules controlled by powerful officials who make authoritative decisions that set the rules for all other players so that public goals can be achieved.

- *Pluralist* modes emerge in cities where there are rivalries between powerful competing interests with government brokering conflicts to manage competing blocs seeking to direct the policy agenda in their own material interests.

- *Popular democratic* modes tend to form around politicians who form alliances with popular grassroots movements—democratic participation, inclusion and accountability are the key symbolic practices that legitimise a populist governing coalition.

We add a sixth mode which we label 'entrepreneurial urban governance'. Applying Mazzucato's concept of the 'entrepreneurial state' (2011), politicians and officials in urban politics are goal-oriented working closely with innovation-oriented entrepreneurs and knowledge networks. Mazzucato's empirical research showed how the state played a crucial role in the early phases of recent American innovations, such as the internet. She argues for 'mission-led' innovation (2015) for greening the economy which we apply to urban contexts. We connect her approach to the empirically observable trend of 'urban experiments' at various levels of ambition (Evans *et al* 2016). Table 1 summarizes the differences between the six urban governance modes with respect to governing relations, governing logic, decision-makers, political objectives and correlations with different types of urbanisms.

In response to the 2007 crisis and quantified ways to reduce urban DMC, the search is now on for interventionist modes of governance that sets clear goals or targets and promotes innovative responses to both the economic and ecological crisis (Scoones *et al* 2015). While Salat (2016) has shown that a sustainable urban form is conceivable, we argue that the managerial bureaucratic default form of governance is unfit to deliver on this. We have about 15–20 years to try and achieve the sustainability transition. This requires a form of radical learning that bureaucracies cannot deliver without partnering with a range of other public, private and non-profit institutions. As an alternative we look to a combination with networks that include non-state actors. While the post-2007 'smart city' agenda connects cities to corporates we think it falls short of achieving this transition effectively. Promoted by the giant technology companies it represents a neo-corporatist bid to capture this dynamic (Luque *et al* 2013). This latter option is reflected most dramatically in the real existing cities of Songdo and Masdar where the new algorithmic modes of urban governance have been most explicitly promoted in order to lure city leaders from around the world into thinking that these corporates could run their cities (Kuecker 2013). Its most elaborate exemplars are self contained 'green' urban quarters at best, but corporates have not been able to showcase a working, adaptive let alone replicable alternative mode of urbanisation.

The clearest indicator of entrepreneurial urban governance is when city policy makers (at political or managerial level, or both) form open coalitions/ partnerships with a range of knowledge institutions, public agencies, social enterprises, civil society formations, creative industries and entrepreneurial businesses (usually locally rooted) to address a particular challenge which, in turn, tends to create the basis for a more durable alliance to go on to tackle wider challenges. Over time, if this kind of entrepreneurial urban governance is to become systemic, it will be necessary to build up regulatory and institutional capabilities for furthering integrated urban planning (discussed below) and for promoting what is referred to later on as 'well-grounded' cities. Although city administrations strive to do what they can within

existing constraints to promote this way of doing business, it may also be necessary in some countries to introduce national-level reforms that empower city governments to provide this kind of leadership. A detailed programme of reform to achieve precisely this has been developed by United Cities and Local Governments (United Cities and Local Governments 2016), reinforced by the recommendations of the German Advisory Council on Climate Change (German Advisory Council on Global Change 2016).

Entrepreneurial urban governance

A new form of urban governance is required that can deliver on the highly ambitious SDG number 11. Following Mazzucato (Mazzucato 2011, Mazzucato 2015) and read together with Evans *et al* (2016), more attention should be paid to the new 'entrepreneurial modes' of urban governance that get formed by—and emerge to drive—a wide range of 'urban experiments'. Basically, this new form of urban governance would have three components: (1) entrepreneurial modes of governance, (2) urban experimentation and (3) systemic leaning through networks. Firstly, for Mazzucato, the role of the entrepreneurial state is to clearly stipulate public goals and then invest in cutting-edge research and development to create new markets, *and* in the new technologies during the early high-risk stages of the familiar S-curve innovation cycle. Without this, she argues, the requisite fundamental innovations will not happen because the private sector is averse to knowledge investments that generate returns to society in general rather than exclusively to the primary investor: as a result, their short-termist perspectives reduce their appetite for risk during the early phases of the innovation cycle.

Secondly, this approach can be connected to the emerging literature on urban experimentation (Broto and Bulkeley 2013, Evans *et al* 2016). Based on a recent review of the literature on 'urban experiments', Sengers *et al* (2016) offer a useful definition of urban experimentation that fits neatly into the Mazzucato-type entrepreneurial governance framework. They propose that an urban experiment can be defined as follows:

> 'An inclusive, practice-based and challenge-led initiative designed to promote system innovation through social learning under conditions of deep uncertainty and ambiguity.' (Sengers *et al* 2016.)

Thirdly, major advances could be made if this culture of urban experimentation is connected to systemic learning. Here the emergence of a vast number of global coalitions emphasizing the role of city governments as leading innovative sustainability-oriented change (e.g. C40 League, ICLEI, UCLG, Metropolis, etc) can be made into a component of this new entrepreneurial mode of urban governance,

providing a new form of leadership and creating the platforms for joint sharing and learning of experiments and experiences.

The city as laboratory of the future has become the hallmark of the global green transformation in the information age. It can, however, go either way: towards the tightly coupled algorithmic urbanism of the corporate-led smart city agenda to boost economic productivity and competitiveness that might simply result in the greening of splintered urbanism; or towards a more inclusive, well-grounded heterogeneous, creative, open source, loosely coupled city-wide agenda of urban experiments aimed at finding ways to rebalance informational development, human wellbeing and sustainable resource use. However, more is required than simply registering the options.

From competitive to well-grounded cities

While this new entrepreneurial urban governance is full of potential, it is unlikely that it will deliver on the goals of the sustainability transition as spelled out in this volume unless it is connected to a new imaginary of the 'good' city. Currently, 'green' or 'smart' gets attached to ideas of urban form that still very much follow a competitive, growth oriented format. Moreover, cities and urban settlements are embedded within regional, national and global economic dynamics, resource flows and financial systems and cannot fully determine what happens within the 'city walls'. What is needed is a balanced approach that accepts that there are significant non-local 'governors' of urban dynamics that urban actors do not control, but also that urban actors have policy influence (both individually and collectively) and there are things they can do to 'stabilize' and 'accelerate' positive local dynamics that interact with non-local governors to catalyse what Engelen *et al* (2016) call 'well-grounded' urban processes.

Following Engelen *et al* (2016), foundational economy jobs are the ordinary everyday activities that reproduce public/social life, (and then extending on this idea) also biophilic jobs or 'green jobs' that arise from recycling, ecosystem restoration and decarbonisation (Beatley 2011). Stabilizers are those policies that protect and expand these kinds of jobs and related infrastructures. Complementing the *stabilizers* of a well-grounded city, *accelerators* tend to focus on the construction of high quality socially-mixed living environments where open-source informational development driven by internal and external investors and social enterprises boosts productivity and generates the surpluses needed to finance human and sustainable development.

Without the productivity improvements that informational development makes possible, an over-investment in human development could lead to fiscal stress and ultimately unmanageable debt. The well-grounded

city is different: it is an amalgam of the foundational and the biophilic economies underpinned by informationalism. It provides the basis for a social contract between rich and poor, and gives priority to businesses, utilities, educational institutions, social enterprises, ethical banks, impact investors, creative industries, informal entrepreneurs and local (non-chain) supermarkets whose networks and branches root them in the city so they can be subject to social license (Engelen *et al* 2016).

Integrated urban planning for sustainable cities

As argued by Salat (2016), integrated planning is one of the most important internal accelerators that can be used to shape the city form and the spatial distribution of urban activities in ways that maximize the potential of the foundational and biophilic economies via strategic intensification and resource efficiency. Infrastructure investments and land-use planning decisions should be strictly aligned with these spatial guidelines. This needs to be done in a way that takes into account the fact that a city's demand for physical structures, infrastructures, housing and amenities will change with time as its population grows and demographics change. Learning from planning failures, both in the past and elsewhere, will mean abandoning the notion that there is a fixed 'ideal' average density appropriate for all contexts reinforced by static plans and underutilization of large tracts of public land. Moreover, while we need integrated planning, we cannot revert back to the managerial modernist version of the 20th century. It will now need to be more open for innovative solutions and participation of societal agents of change and will thus entail adopting new planning tools. Granular and flexible planning that creates spaces for learning through urban experimentation allows a city to vary land-use types, densities and built forms (such as height) at the neighbourhood and block level as and when this becomes necessary for various economic, financial, environmental and social reasons, in line with long-term strategies for the city. Granular planning allows a city to increase the diversity and texture of certain neighbourhoods by promoting high densities in central business districts and strategic transit nodes (for example, as is planned for Ahmedabad and Johannesburg), while preserving historic buildings through adaptive reuse. These plans must be accompanied by periodic reviews to help the city respond to external governors such as changing market conditions, demographic changes and resource constraints.

Integrated planning is essential for realising the twin goals of 'compact urban growth' and 'liveable, functionally and socially mixed neighbourhoods'. According to Salat (2016), there are eight dimensions of integrated planning that can be regarded as internal

accelerators of sustainable urban forms, provided that the necessary decentralisation has taken place. They are: (1) compact, articulated and polycentric intensification; (2) nodal agglomeration; (3) flexibility and alignment with market demand; (4) connectivity through scales and vibrant public realm; (5) small perimeter blocks with active edges; (6) mixed use; (7) fine grain diversified plot patterns; (8) green spaces, natural systems and bioclimatic urban fabric (Salat 2016).

Beyond regulatory hegemony: experimentation in the global South

Everyone who lives in cities and urban settlements needs to somehow access basic urban services, especially energy, waste disposal, water, sanitation and mobility. For historical reasons, the generally accepted technologies and institutions that have made this possible evolved first in the industrialising cities of Western Europe and North America. The result was centrally managed public monopolies with professionally run highly regulated bureaucracies mandated to deliver uniform services in a given area to everyone, including cross-subsidisation where required. Resource constraints were defined merely as short-term technical problems for engineers to overcome via good design. These conventional service delivery institutions were part of the evolution of increasingly regulated and formalised urban systems underpinned by industrialisation and economic growth, and spatially directed by urban plans. Although these conditions do not apply in many cities and urban settlements in the global South, the conventional service delivery system has nevertheless been regarded as the norm by both international aid agencies and local policy elites. Failure is thus defined as anything that deviates from this norm.

There is now a substantial body of literature that has demonstrated how complex, heterogonous, hybridized and hodge-podged many urban systems in the global South have become (Allen *et al* 2016, Edensor and Jayne 2012, Simone and Pieterse 2017, Swilling *et al* 2003). In essence, unlike formalised regulated urban systems, space and time have not been transformed into predictable regulated routines of daily urban life in the 'untamed urbanisms' of the global South. This socio-cultural-economic heterogeneity has, in turn, resulted in a diversity of hybridized symbiotically connected formal and informal service delivery systems that are appropriate for fast-changing rapidly expanding and inherently unstable urbanization processes (Jaglin 2014). As a leading authority on this phenomenon concludes '[I]n heterogeneous cities, the diversity of service needs has been a vector for innovation' (Jaglin 2014:439). In other words urban experimentation in these contexts is not a marginal niche activity, but a defining feature of the

way the entire urban service delivery system works in practice! It would be mistake, however, to see this as a divergence from the conventional universal service delivery model, or as a temporary step along a developmental pathway towards the final realization of this ideal. Instead, a diversity of interconnected hybridized service delivery configurations is a totally different urban service delivery approach, and it is here to stay in most cities of the global South.

If a diversity of service delivery configurations is here to stay in fast growing heterogeneous urban systems, then what are the implications for urban governance and the challenge, in particular, of resource efficiency? Whereas juxtaposition of the regulated and unregulated ignores the synergies between the two, and integration is institutionally implausible, Jaglin proposes that coordination may be feasible 'depending on the quality of regulation and the consistency of incentive structures' (Jaglin 2014). There are many examples of this emerging in practice where there is significant potential for reconciling economic development, human development and sustainable resource use (Simone and Pieterse 2017). This fits the agenda for entrepreneurial modes of urban governance very well. So, while the contexts of cities in various parts of the world are obviously widely differing, there seems to be an emerging convergence in strategies of urban governance.

Conclusion

In conclusion, this paper has provided a framework for understanding the future of urban governance that is appropriate for the challenge of fostering socially inclusive and resource efficient urban metabolic configurations in the information age. In the absence of an adequate set of global agreements to address both the environmental and economic crisis, cities and urban settlements in all regions have become spaces where social actors can engage in creative visioning, coalition building and collaborative actions for change. We see the best prospects for an 'entrepreneurial urban governance' based on three component parts: (1) an active state setting goals and investing in innovation; (2) the emergence of urban experimentation; and (3) systemic learning via city networks. For urban experimentation to be replicated and go to scale, a multi-level governance framework will be required that defines a specific role for certain state institutions at different levels to support radical innovations as well as investments in (and/or subsidising of) early-cycle high risk ventures. This entrepreneurial role for state institutions would result in city-wide urban governance coalitions between government policymakers, knowledge networks, social entrepreneurs, innovators, investors and civil society formations who share a commitment to innovations that result in greater resource efficiency (via infra-

structure reconfigurations and strategic intensification via a network of interconnected high-density nodes) and wellbeing for all (via expansions of the foundational and biophilic economies). Integrated urban planning should become a key implementation instrument for achieving this vision. However, it also needs to be recognised that in many southern cities there is an all-pervasive heterogeneity that has given rise to a hybridized and diverse set of service delivery systems that are different to the highly regulated modes of service delivery that have evolved in many industrialised nations in the global North. Dropping any attachment to the exemplary and then recognising institutional diversity across world regions holds the key to developing context-specific urban governance approaches for catalysing urban experimentation in pursuit of resource efficient urbanism.

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