

City networks: breaking gridlocks or forging (new) lock-ins?

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City diplomacy: breaking gridlocks?

Cities have captured the imagination of many practitioners and analysts across the globe. It is now commonplace, well beyond architecture and planning circles, to hear the inescapable ‘urban age’ mantra that ‘more than half of the world’s population lives in urban areas’ and that ‘by 2050’ this proportion might grow to as much as two-thirds of humanity.¹ Cities have proved to be critical engines of the global economy, global information flows, and worldwide mobility of goods and people.

Yet cities are not just an increasingly critical context for an urbanizing twenty-first century. They can be effective actors, taking part in the dynamics of global governance. This active engagement is both reflected in, and bolstered by, the rhetoric emanating from most multilateral processes, like the Sustainable Development Goals, involving cities. As we argue throughout this article, the extent and persistence over the past two decades of the development of city networks give a clear sign that cities are indeed participants in the architecture of world politics. This active participation is reflected in the often-cited assertion that while ‘nations talk, cities act’.² Various attributed to a number of city leaders, the statement embodies much of the leadership ethos of former Mayor Michael Bloomberg in New York City’s tenure (from 2010 to 2013) as chair of the C40 City Leadership Group—perhaps the best example of the increasing prominence of cities in global policy agendas. In short, cities are ‘out there’ in world politics, lobbying, linking, planning and cooperating; and they are doing all this, often, in formalized groups—city networks.

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¹ On the ‘urban age’ rhetoric, see Neil Brenner and Christian Schmid, ‘The “urban age” in question’, *International Journal of Urban and Regional Research* 38: 3, 2014, pp. 731–55. On urbanization trends, see Gordon McGranahan and David Satterthwaite, *Urbanisation concepts and trends*, working paper (London: International Institute for Environment and Development, 2014).

² Simon Curtis, ed., *The power of cities in international relations* (London: Routledge, 2014).

We aim here to offer a preliminary guide to what city networks are, and what they do in contemporary world politics. We base our analysis on a comprehensive review of a database of 170 city networks constructed in 2015 to represent the range of formal organizations of cities in national and international affairs. On this basis, we offer some preliminary suggestions as to, first, the kinds of shape taken by city networks and the kinds of activity they represent; and, second, their potential to act as a transformative force at a time when much of world politics is locked into slow-moving multilateralism. While of course not exhaustive, as the overall number of city networks might be higher (possibly over 200), the discussion below is based on what we believe to be a representative sample of this vast landscape. The dataset covers 170 city networks globally, extending across cities of all sizes and locations on the planet, including large national networks reaching up to 20,000 members nationally (as in the United States or India). This sample has been selected to represent the geographical, topical and structural variety of city networks (national, regional and international, as described below) and, we believe, offers a close statistical approximation to the overall picture of city networking in 2015.³ This database represents, to the best of our knowledge, the largest sample of city networks currently analysed in the literature.

The global landscape of city networking

Today, an important portion of city networking activities can be justifiably described as ‘city diplomacy’, in that they constitute mediated ‘international’ relations between rightful representatives of polities (cities in this instance), and that they result in agreements, collaborations, further institution-building and cooperation across boundaries.⁴ Within the framework of the C40, ‘ambassadors’ of cities (elected mayors, or their peers) such as London or Seoul negotiate common frameworks and partake in collective action on behalf of their ‘city-zens’.⁵ This is of course a challenging activity, as cities are complex political communities of urban dwellers, and the constituencies represented by mayors, elected officers and municipal administrations are often highly diverse, to an extent that may go beyond national characterizations. For instance, in the UK, registered European Union residents generally bear the same rights as citizens in electing mayors (as in the Greater London Authority), and in Sweden voting for local elections is allowed for all foreign residents with at least three years’ residence. Notwithstanding such complexities in their own governance struc-

³ Data were gathered and coded between November 2014 and November 2015 by the City Leadership Initiative team at University College London.

⁴ Rogier van der Pluijm and Jan Melissen, *City diplomacy: the expanding role of cities in international politics* (Clingendael: Netherlands Institute of International Relations, 2007); Michele Acuto, ‘World politics by other means? London, city diplomacy and the Olympics’, *Hague Journal of Diplomacy* 8: 3–4, 2013, pp. 287–311.

⁵ For a more extensive discussion of the application of ‘citizenship’ to cities, see, among others, P. B. Wood, ‘Urban citizenship’, in H. A. van der Heijden, ed., *Handbook of political citizenship and social movements* (Cheltenham: Edward Elgar, 2014), pp. 133–53; Engin F. Isin, *Democracy, citizenship and the global city* (London: Routledge, 2013).

tures, cities are rising to prominence in global governance debates, and the case of the C40 is no rarity.⁶

Nonetheless, a methodical analysis of the networked influence of city diplomacy, and ahead of that a systematic account of the landscape of city networks, are conspicuously missing from the scholarship. Our aim here is to offer the beginnings of such an account, and to offer preliminary consideration of the issues and hypotheses that emerge from this diplomacy. As we shall argue, it is critically important to develop a more systematic appreciation of the global landscape of city networking, reaching beyond topical areas or geographical divisions, in order to be in a position to assess their impact, future evolution and potential in global governance. For this reason we make here only preliminary suggestions in this direction, focusing primarily on offering a possibly unprecedented overview of the variety of the city network landscape. However, even at this stage it appears possible to test some initial hypotheses emerging not just from the academic literature but also from the practice of networks such as the C40.

Specifically, we want to focus particularly on the potential these activities might have in offering a networked catalyst for politics beyond the 'gridlock' affecting most contemporary international institutions, as recently called for by Hale, Held and Young.⁷ By paying attention to the often underappreciated realm of city diplomacy, and to the landscape of city networks, we want to raise a number of questions as to the possibility that cities might in fact be filling the 'governance gap' identified by Hale and colleagues as a common result of international gridlock; a gap 'in which crucial needs go unmet' while gridlock becomes a 'general condition of the multilateral system'.⁸ Do city networks have the capacity to respond to such relative stasis and offer alternative pathways to cooperation? Given the lack of systematic data as a basis on which to begin to answer this question, we decided to focus the majority of this article on establishing such a basis in order to enable both ourselves (in the latter part of the article) and also, it is to be hoped, a wider group of scholars in both IR and urban studies to develop a dialogue on the topic.

The present study, developed in the context of the City Leadership Initiative at University College London, offers perhaps the first non-topical and systematic assessment of the panorama of city networking globally.⁹ Following well-established work in environmental studies and health policy, we identified 'city networks' as formalized organizations with cities as their main members and

⁶ While the ramifications for the status of citizenship and sovereignty are indisputably interesting, the principal focus of this article is more specifically on the networking activity of city diplomacy. For more on the complex context of representation and citizens in cities, see the legal work of Yishai Blank on the local/urban dimension of citizenship: Yishai Blank, 'Spheres of citizenship', *Theoretical Inquiries in Law* 8: 2, 2007, pp. 411–52.

⁷ Thomas Hale, David Held and Kevin Young, *Gridlock: why global cooperation is failing when we need it most* (Cambridge: Polity, 2013), p. 306.

⁸ Hale et al., *Gridlock*, p. 3.

⁹ The City Leadership Initiative (CLI) is a project of University College London in partnership with the World Bank and UN-Habitat, also involving collaborations with other major 'gridlock' actors such as the World Health Organization and the C40. See: <http://www.cityleadership.net>. (Unless otherwise noted at point of citation, all URLs cited in this article were accessible on 1 July 2016.)

characterized by reciprocal and established patterns of communication, policy-making and exchange.¹⁰ Politically, we define ‘cities’ as local governments (without distinction between municipal and metropolitan for the purpose of this research), although we recognize in both the database and the article the critical importance of other private and governmental forms of authority in urban settlements. So, for instance, the C40 is considered a city network because it has a defined membership of local governments, as well as documented regular procedures (and an act of establishment). Conversely, we do not include event-based, ad hoc networks such as that surrounding the UK’s International Festival for Business, which does not have a regular membership despite communication channels and meetings, or the Global Cities Business Alliance, which has not yet held a formalized meeting and whose members are predominantly business actors.

Carried out through both desktop analysis and a series of qualitative interviews, and coded mostly via simple frequency analysis and other basic statistical distribution methods, the study is aimed at offering a baseline for more accurately grounded discussions of the ‘diplomatic’ impact of cities in global governance. This approach is intended to reach beyond issue area biases (as noted below in connection with the environment) and towards a more methodical, comparative and aggregate programme of city diplomacy research. To this end, this article is divided into two parts. In the first, we illustrate the global landscape of city networks and make some initial comments on its impact on the ‘gridlock’ discussion initiated by Hale and colleagues. In the second, we argue that, despite the path-breaking potential of city diplomacy in global governance, we cannot disregard the ‘unavoidable continuity of the city’ as a domain of political–economic but also strongly material path-dependencies.¹¹ This observation is of critical significance in responding to Hale and colleagues on the issue of ‘gridlock’. Given their argument that gridlock is chiefly prompted by cycles of ‘self-reinforcing interdependence’ which have demanded more and more institutionalization, leading to multilateral standstills, the current state of city-based cooperation might be not just filling gaps in governance arising from gridlock, but possibly creating new path-dependencies.¹²

The sprawl of city networks raises questions as to the sustainability of the increasing number of city diplomacy initiatives. It also highlights the centrality of private interests and actors in city diplomacy, generating concerns as to the revolu-

¹⁰ See Harriet Bulkeley and Michele Merril Betsill, *Cities and climate change* (London: Routledge, 2005), and Evelyne de Leeuw, ‘Global and local (glocal) health: the WHO healthy cities programme’, *Global Change and Human Health* 2: 1, 2001, pp. 34–45. Here we have slightly amended the classic definition of transnational networks by Keck and Sikkink as ‘forms of organization characterized by voluntary, reciprocal, and horizontal patterns of communication and exchange’: see Margaret E. Keck and Kathryn Sikkink, *Activists beyond borders: advocacy networks in international politics* (Ithaca, NY: Cornell University Press, 1998), p. 8. This latter definition might, in fact, be challenged by several of the trends highlighted in the study, which point for instance at the internal hierarchies of networks (vs ‘horizontal’ cooperation) or at mandatory participation (vs voluntary cooperation) in certain networks. We identify cities as ‘main’ members not to exclude networks that also include some (but not a predominant) representation of other local actors like NGOs and regional governments.

¹¹ Robert Beauregard and Anne Haila, ‘The unavoidable continuity of the city’, in P. Marcuse and R. van Kempen, eds, *Globalising cities* (Oxford: Blackwell, 2000), pp. 22–37.

¹² Hale et al., *Gridlock*, pp. 276–7.

tionary potential of this activity in world politics and its fragmentation effects. Showing that city networking can also contribute to the persistence of existing (and even the forging of new) 'lock-ins' in global governance, we conclude by calling for more systematic attention to be paid to city diplomacy, its lock-ins and its futures.

To begin this discussion on the characteristics of city networking, and to enable other scholars to draw their own conclusions as to the possible evolution of this networked landscape, we devote the remainder of this section of the article to considerations of form, size and coverage, and the apparent 'novelty' of city networks, then turning to more normative considerations in the following sections.

Form

What form do city networks take? National, state-based organizations (such as the US Conference of Mayors) are still dominant, representing some 49 per cent of city networks. That said, regional (such as Eurocities) and international networks (such as the United Cities and Local Governments, UCLG) are on the rise, now accounting respectively for 21 per cent and 29 per cent of the total (see figure 1). A limited subset of subnational networks (such as the Key Cities group in the UK) accounts for the remainder.¹³ This, in practice, tells us two main things about the impact of city networking on global policy. On the one hand, the continuing predominance of national city networks reflects the fact that, in an age of global governance fragmentation and non-state-centric discussions on world politics, cities still relate substantially to their national peers and central governments. In short, national politics still matter for cities. City diplomacy is still deeply embedded in the Westphalian system even though, as we have argued elsewhere, it predates it.¹⁴ Some systems—such as the Italian ANCI (association of local governments), which automatically includes Italian *comuni* (municipalities) as members of the network—are even centrally sanctioned and enrol cities of certain sizes in their networks by default. Other systems, however, are formed on a voluntary basis and coexist with other parallel networks at similar scales: an example is the Key Cities group in the UK, which gathers together 26 medium-sized municipalities and exists alongside other subnational groupings of British cities. This does not mean, however, that city networking within national boundaries cannot 'escape' the conventional IR great divide between domestic and international affairs. As we highlight below, city networks themselves can emerge as collective actors and negotiate across boundaries.¹⁵ Once again, this phenomenon

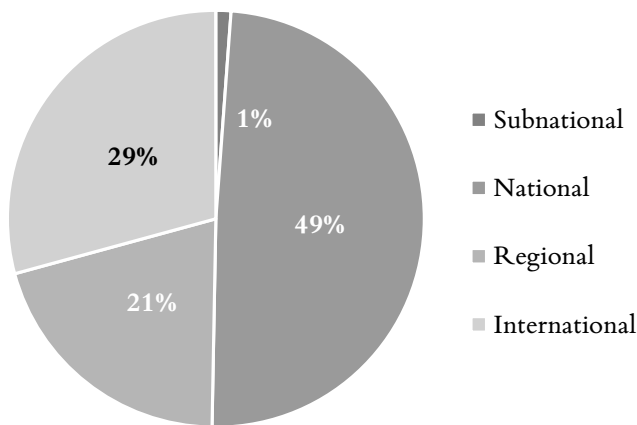
¹³ Smaller geographically defined subnational networks are a minority, but the caveat should be made that many of them are either informal groupings or institutionally nearly invisible to the non-indigenous eye. The survey accounts for this category through a geographical criterion by including in it only region-specific networks (at substate level, e.g. the Italian *regione* or Brazilian *prefeitura*), not small membership networks of cities dispersed nationally, like the Core Cities network in the UK, which are identified as 'national'.

¹⁴ Michele Acuto, 'City diplomacy', in Costas Constantinou, Paul Sharp and Pauline Kerr, eds, *The Sage handbook of diplomacy* (London: Sage, 2016).

¹⁵ Michele Acuto, 'The new climate leaders?', *Review of International Studies* 39: 4, 2013, pp. 835–57.

is not necessarily at odds with the rules of state-centric global governance. The World Health Organization (WHO) European Healthy Cities network, for instance, is essentially a ‘network of networks’, in which representatives of 30 European national networks coordinate with one another via the WHO European Office, rather than coalescing via a transnational super-network. This proves, at least in principle, the feasibility of coexistence with the state-led multilateral world. Healthy Cities has in fact had a longstanding tradition of collaboration with national governments and with the multilateral structure of WHO itself, which has underlain the endurance over a quarter of a century of one of the oldest networks of its kind.

Figure 1: Geographical scope of city networks (n = 170)



Size and coverage

Membership is perhaps the most widely varying characteristic of city networks, and one that invites methodological caution. The size of these organizations, as noted above, ranges from small selected pools of cities (as with the Cisco-sponsored City Protocol on smart cities) to larger international and regional networks, such as the Arab Town Organization (22 countries) or the European Forum on Urban Security (250 European cities), to even wider national groups. Interestingly, it is very difficult to offer an ‘average size’ of network membership without making substantial qualitative assumptions and generalizations: many networks do not offer complete or updated lists of their members, and this is especially true for some larger ones and also, as noted below, some hybrid organizations led by the private sector.¹⁶ Networks also vary in respect of types of member, from more traditional networks formed by cities only, to a mixed type that gathers cities and

¹⁶ These calculations, even as a preliminary overview, require some caution, given the existence of some wide-membership networks that might skew the actual shape of the landscape. Mathematically the 170 networks average 338 members each, but this figure might not be representative of most networks. There is also the difficulty of acquiring precise membership data.

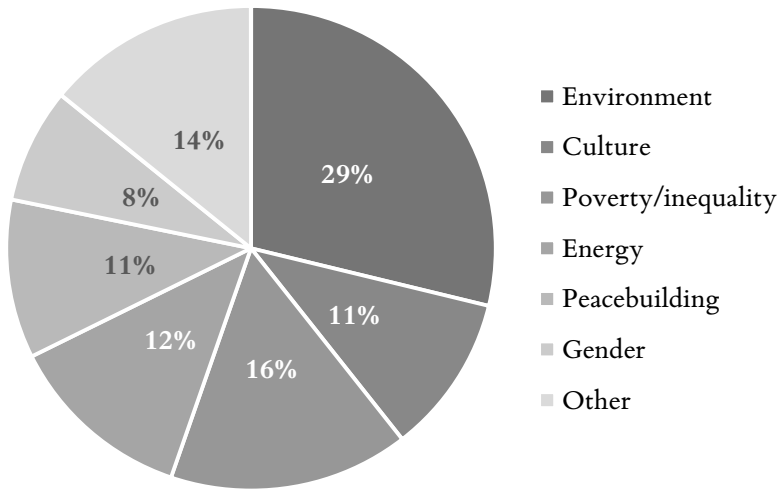
associations of cities, such as UCLG, which links over 1,000 local governments but also 155 municipal associations. Likewise, it is not uncommon to find cities of very different types and sizes assembled in the same organization. This limited consistency in information poses a key challenge both in conducting accurate comparative research and also in offering a clear appreciation of any single city's networked commitments. There are also several networks gathering in their memberships cities, quasi-governmental associations and NGOs (business or charities), thus presenting complex governing arrangements that, as we note below, contribute to hybridizing the structures of transnational cooperation.

As for the topical coverage of policy areas, this is a vast field that cannot be reduced, as we argue below, to the often very visible façade of urban environmental action and the success of climate- and sustainability-focused networks. While the environment still takes the lion's share of the activity of city diplomacy (29 per cent of networks are principally focused on it), poverty, gender and inequality are also prominent concerns (22.8 per cent of networks), somewhat ahead of energy and peacebuilding (respectively, 12.4 per cent and 10.6 per cent), as shown in figure 2.¹⁷ Furthermore, if we consider city networks as vehicles for connecting sectors and policy arenas, the picture becomes even more varied and interwoven. By our estimates, nearly 71 per cent of city networks could be described as 'multi-purpose' in that they formally act across at least two major areas of policy: these include the US National League of Cities and the Asian Network of Major Cities 21, along with most of the instances mentioned thus far. Importantly, there is a vast set of specialized networks focusing on all sorts of concerns from transparent governance to ageing, youth or education. This, in turn, paints a picture of a wide landscape of paradiplomatic action by cities, which pervades national, transnational and international agendas to a much more substantial extent than the widespread emphasis on cities in action on climate change might suggest. Recognition of this variety, and some important signs of reflexivity we outline below, are increasingly important elements in the picture of city networking. For instance, both WHO Healthy Cities and the C40 have laid explicit emphasis on extending the cooperative nature of their primary agendas (health in all policies and climate action, respectively) into intersectoral collaboration and multithematic initiatives, such as the C40's new subnetwork on digital democracy for sustainability, or Healthy Cities' focuses on ageing, cross-regional development and city (health) diplomacy. Similar evidence can also be found in large networks such as the UCLG, coupling sustainability, economic growth and democratic governance, or the Cities Alliance, with a focus on both development and capacity-building.

It might, then, be somewhat misleading to infer that the greatest achievements of city diplomacy are in those areas where action is most visible. This suggestion has clear implications in several policy sectors. Referring back to the observation

¹⁷ These percentages reflect the primary aims of each network as identified in its core statement of intent (whether through a charter, website, press release or main document). We omit here what might be an interesting but possibly distracting discussion of specialization of network focus in favour of a central emphasis in this article on the wider landscape.

Figure 2: Subject focus of city networks (n = 170)



above on the longevity of some city networks, one must acknowledge the well-established presence of WHO Healthy Cities, which has now been in place for over 25 years, with more than 10,000 municipalities under its aegis, and with possibly 450 million people within its potential policy scope,¹⁸ and longstanding campaigns such as that of the C40 on climate action, now in place for nearly a decade; such sustained activity also reverberates at national level, with, for example, the UK Core Cities group serving as a continuing advocate for devolution and the Federation of Canadian Municipalities having long promoted gender balance in public administration.

These observations also point to a need to overcome the assumption that city diplomacy is perhaps less ‘central’ to classical IR concerns like security. Certainly one of the most classical examples of city networking, the Mayors for Peace initiative, gathering over 5,000 cities in 152 countries, has for more than three decades (since 1982) been a sustained voice in several non-proliferation advocacy and lobbying activities. While similar examples of direct overlap with classical security challenges might still be limited and centred on advocacy rather than policy-making, it is certainly now possible to point to a growing number of city diplomacy efforts serving important traditional and non-traditional security purposes. One example is work of the Municipal Alliance for Peace in the Middle East (MAP) in seeking reconciliation in the Israeli–Palestinian conflict. As Chris van Hemert has emphasized in relation to this process, ‘the deadlock at the national/international level result[ed] in local-level dialogue and municipal projects being seen as attractive alternatives’.¹⁹ We could therefore argue that

¹⁸ De Leeuw, ‘Global and local (glocal) health’.

¹⁹ Chris van Hemert. ‘A case study in city diplomacy’, in Arne Musch, Chris van der Valk, Alexandra Sizoo

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multilateral (and also bilateral) gridlock might be a major determinant in the formation of city networks. No clear data are available in the network's statements to serve as a quantitative basis for this assertion; nevertheless, it is evident from the rhetoric of many popular networks such as the C40, ICLEI—Local Governments for Sustainability and UCLG, among others, that the limits of interstate diplomacy are driving city diplomacy initiatives aimed at filling governance gaps. Environmental sector networks have been very active in capturing media attention and showcasing what can be achieved through such steps beyond gridlock, for example in the C40's flagship report *Climate action in megacities*, now in its third edition.²⁰ More research as well as more visible self-reporting on the impact of city networking in other sectors are needed.

Novelty vs continuity

A common mistake often made in sensationalist reiterations of the 'urban age' mantra is to represent the proactivity of cities today in terms of novelty. City networking is not a new phenomenon. In fact, city networks are on average over 30 years old, and have progressively expanded their topical coverage, from matters of public transport to environmental action and international peacebuilding, spanning several decades. So while there is indeed a clear trend towards the expansion of networking, with 24 per cent of all networks having emerged in the last decade, and indeed at least eight new international and regional networks in the three years from 2013 to 2015, it cannot be maintained that city networking is a historically new reality (see figure 3). Some networks, such as the transnational International City Management Association (founded in 1914) or the US Conference of Mayors (founded in 1932), are well-established presences in national and international governance processes. Nearly 17 per cent of city networks, especially those of a national nature, were founded more than 60 years ago, essentially predating the Cold War and, in a number of cases, even the Second World War.²¹ This has important implications for the way in which we should conceive of city diplomacy in world politics. While it is certainly clear that several new networks are reinventing or innovating forms of city-to-city and 'polylateral' engagement (that is, between cities and states, business and other layers of government), there are also numerous strands of well-established policy collaboration that have been institutionalizing the practices of city diplomacy.²² So, for instance, while the C40 group is stepping up industry collaboration and data development to assess the impact of action on climate change by its 83 member cities, including for example collaborations with ARUP or the Carbon Disclosure Project, the ICLEI—Local

and Kian Tajbakhsh, *City diplomacy: the role of local governments in conflict prevention, peace-building, post-conflict reconstruction*. (The Hague: VNG International), 2008, p. 188.

²⁰ C40 and ARUP, *Climate Action in Megacities 3.0 (CAM 3.0)* (London: C40 and ARUP, Dec. 2015). CLI has been directly involved in the production of this report, which is available at <http://cam3.c40.org>.

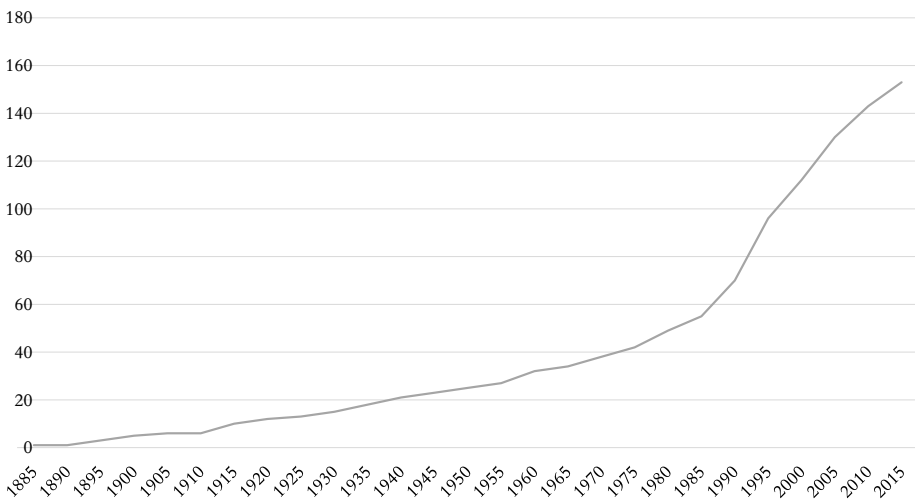
²¹ In principle, this reasoning could be extended to the archetypes of modern city networking to demonstrate that, just like city diplomacy, city networks were in place long before the advent of the Westphalian system.

²² Stuart Murray, Paul Sharp, Geoffrey Wiseman, David Criekemans and Jan Melissen, 'The present and future of diplomacy and diplomatic studies', *International Studies Review* 13: 4, 2011, pp. 709–28.

Governments for Sustainability network has been a regular source of monitoring and in-depth case-studies of urban environmental performance over the past 25 years. ICLEI belongs, in fact, to the phase of rapid expansion in the modern type of city networks: over 58 per cent of city networks are between 10 and 30 years old, mapping onto the broader proliferation of transnational initiatives that has taken place within global governance since the late 1970s.

In short, then, city networks are a well-institutionalized phenomenon that presents scholars and practitioners of international relations with complex historical ramifications. Yet, when considering the emergence of city networks over the last century, and attempting to identify the ‘birth dates’ of existing initiatives, it is undeniable that a marked growth can be detected over the last two decades: about 60 of the 170 networks under consideration in this study were in place by 1985; this number had nearly doubled by the late 1990s (to around 120 by 1999), and appears to be growing still.²³

Figure 3: Numbers of networks per year, 1885–2015



A key question already raised in environmental politics by Kristine Kern and Harriet Bulkeley is that of a ‘switch’ into the type of networks whose emergence we are now witnessing.²⁴ In short, is there a ‘new generation’ of city networking? City networks as represented in this study are, as outlined above, of varying forms and orientations, and might represent only the (institutionalized) tip of the iceberg of city-to-city cooperation and cross-boundary municipal initiatives. The scale of the well-recognized practice of ‘city twinning’, for instance, is likely to be far

²³ As a proportion of the existent networks by year of birth. Not represented here, and of certain analytical and policy importance, is the issue of ‘birth and death’ of city networks and the reasons behind the emergence and decline of these city diplomacy initiatives.

²⁴ Kristine Kern and Harriet Bulkeley, ‘Cities, Europeanization and multi-level governance: governing climate change through transnational municipal networks’, *Journal of Common Market Studies* 47: 2, 2009, pp. 309–32.

more widespread even than is thought to be the case and still mostly unaccounted for; and, as Mark Jayne and colleagues argue, it could provide fertile ground for analysis of contemporary urban processes.²⁵ However, traditional city-twinning networks, such as Sister Cities International (SCI), have themselves stepped from narrowly defined ‘city-to-city cooperation’ (between cities) to a wider ‘city diplomacy’ (between cities and between cities and other non-municipal actors). Some of these networks are shifting from an emphasis on the importance of twinning to an emphasis on the importance of strategy and alliance capability.²⁶ The form and orientation of current city networks have therefore been going well beyond twinning: city networks are being constructed in partnership with actors other than municipal governments, such as the UN, the World Bank or the EU, and are increasingly intertwined with the cross-national action of the private sector that in some cases is initiating such city networking efforts. Overall, the traditional presence of city networking over time, its changing remit and cross-cutting action, along with its growth and increased intertwining with the private sector and multilateral entities, all indicate the importance of paying attention to the results of these activities and indeed what kind of politics city networking is inscribing into the texture of global governance. Here, rather than focusing on the ‘novelty’ aspect of the ‘rise’ of the urban age, we want to offer some preliminary thoughts on the political consequences and material influence of city networking.

‘Locking in’ city networking?

City networking is certainly not just a matter of politics. The ways in which cities connect with and relate to each other, and trade (or indeed steal) ideas, are central to charting the physical shape of an increasingly urbanized age. In this sense, it is crucial to appreciate what sort of ‘urban-ness’ is being built, materially as much as politically, by the mass of networking activities under way. This is because cities are arguably one of the most critical domains of societal path-dependency and ‘lock-ins’. We speak of ‘lock-in’ when a decision-making (or more broadly societal) path-dependency is maintained by a particular dominant technology. This, as organizational studies and science and technology studies (STS) tell us, is not necessarily because of any inherently low-cost or highly effective performance, but may be simply because the dominant technology enjoys the benefits of increasing returns to scale resulting from its very dominance. A typical example of socio-technical lock-in is that of the **QWERTY** keyboard, as illustrated by Paul David.²⁷ The idea of technology ‘locking in’ societal practices is of course well

²⁵ See Mark Jayne, Phil Hubbard and David Bell, ‘Worlding a city: twinning and urban theory’, *City* 15: 1, 2011, pp. 25–41; Wilbur Zelinsky, ‘The twinning of the world: sister cities in geographic and historical perspective’, *Annals of the Association of American Geographers* 81: 1, 1991, pp. 1–31; Pertti Joenniemi and Alexander Sergunin, ‘When two aspire to become one: city-twinning in northern Europe’, *Journal of Borderlands Studies* 26: 2, 2011, pp. 231–42.

²⁶ J. C. de Villiers, ‘Success factors and the city-to-city partnership management process: from strategy to alliance capability’, *Habitat International* 33: 2, 2009, pp. 149–56.

²⁷ See Paul A. David, ‘Clio and the economics of **QWERTY**’, *American Economic Review* 75: 2, 1985, pp. 332–7. See also Stan J. Liebowitz and Stephen E. Margolis, ‘Path-dependence, lock-in, and history’, *Journal of Law,*

established, and is easily transferable to the domain of policy-making—a very common move in management studies and (especially) decision theory, but also in economic geography and STS. Practices and institutions set up in particular historical contexts (as with city twinning across the Cold War eastern and western blocs), and reflecting particular geopolitical interests (as with the private sector's increasing interest in cities as alternative business partners beyond central government), can become locked in and have repercussions over many decades, if not centuries.

These urban path-dependencies are far from 'extraordinary'. Typical of developed and developing cities the world over are locked-in systems of sanitation, for example the inefficient and potentially unsustainable dominance of potable water toilet flushes, as well as massive structures for mobility and connectivity that currently lock in the potential policy pathways ahead of us. Examples of lock-in can be found throughout today's built environment. For instance, the air conditioner is one of the technologies that have altered the shape of urbanism in the modern era. It is indisputable that the introduction of air-conditioning systems has enabled human society to overcome natural climatic limitations, not just in extreme contexts like the Arab Gulf but also in the increasingly dense realities of many metropolises, transforming major urban centres and pushing towards the homogenization of architecture.²⁸ One of the less widely advertised, and yet most critical, dimensions of the long-lived impact of urbanization is in fact that urban settlements embody a very real path-dependency and continuity in society. Cities are perhaps the quintessential realm where, to paraphrase a popular assertion in STS, society is 'made durable' by being stabilized and perpetuated throughout the ebbs and flows of societal changes over time.²⁹

The relevant question for our study of city networking, then, is what 'kind' of urban age politics this mass of transnational activity is likely to inscribe into the very real skeleton of concrete and wires defining our everyday urban life. As we write, important geopolitical shifts are being locked into the mundane realities of the many cities partaking in city diplomacy. City networks are a perfect vehicle for the connection of similar, and the spread of new, lock-ins that allow certain 'models' of urbanism to work in one place and move to another.³⁰ As the geographical 'policy mobility' literature tells us, technology travels with ideas and particular politics are embedded in such ideas.³¹ Critically, this allows for the

Economics, and Organization 11: 1, 1995, pp. 205–26; W. Brian Arthur, 'Competing technologies, increasing returns, and lock-in by historical events', *Economic Journal* 99: 394, 1989, pp. 116–31. We have discussed this point in relation to urbanization in Heike Schroeder, Sarah Burch and Steve Rayner, 'Novel multisector networks and entrepreneurship in urban climate governance', *Environment and Planning C: Government and Policy* 31: 5, 2013, pp. 761–8, and in Maximilian Mayer and Michele Acuto, 'The global governance of large technical systems', *Millennium: Journal of International Studies* 43: 2, 2015, pp. 660–83.

²⁸ Gail Cooper, *Air-conditioning America: engineers and the controlled environment, 1900–1960* (Baltimore: Johns Hopkins University Press, 2002).

²⁹ Bruno Latour, 'Technology is society made durable', *Sociological Review* 38: S1, 1990, pp. 103–31.

³⁰ Jamie Peck and Nik Theodore, 'Mobilizing policy: models, methods, and mutations', *Geoforum* 41: 2, 2010, pp. 169–74.

³¹ Allan Cochrane and Kevin Ward, 'Guest editorial. Researching the geographies of policy mobility: confronting the methodological challenges', *Environment and Planning A* 44: 1, 2012, pp. 5–12.

politics within and among cities, as well as the politics within city networks, to be embedded and over time subsumed apolitically in technocratic discourses and technological innovations that travel through networks and embed (geo)political alignments into the concrete matter of these cities.³²

Considering the impact of city diplomacy not just in its ‘novelty’ but also in its locking-in consequences is central to a better understanding of the role of city networks. The next step is to apply this ‘visceral’ sense of locking in to the domain of governance (just as organizational theory does with policy-making). With socio-technical lock-ins come governance arrangements and political structures that contingently (owing to the often transnational nature of city networking) shape urban and global governance for the long term. In particular, there are two key considerations to do with path-dependencies that emerge from an overview of the global landscape of city networking. First, city diplomacy is potentially locking in new modes of ‘hybrid’ public policy, recasting the geopolitics of global governance. As new (or retrofitted) infrastructure is put in place via public–private schemes, so are new (or retrofitted) models of urban governance.³³ Second, city networks are locking in the material consequences of these modes of governing, which in turn could structure in the long term the shape of everyday life in cities well beyond the lifespan of the networks and the political cycles on which they are based.

Locking in hybrid governance

Considering the wider landscape of city networks entails accounting for cities as deeply involved in the practice of governing twenty-first-century cross-border challenges. As noted above, this involvement might be locking in new modes of ‘hybrid’ governance shaping these modes of cooperation. City diplomacy is path-dependent on its longstanding tradition. Yet a new generation of city networking might also change the long-term shape of governance ‘from the middle’ (neither ‘bottom up’ like civil society, nor through the ‘high politics’ of states) that seems to be so effectively sprawling amid cities.³⁴

In this context it is necessary to point out how the structural footprint of city networks and of city diplomacy is (re)casting the shape of transnational governance. The way city networks are organized has an impact on the dynamics of how regional, international and even global processes are embedded by local governments and private actors. As such, city networks might already constitute a powerful force shaping the ‘governance gap’ of which Hale and colleagues write in *Gridlock*. In particular, city networks push beyond government politics into highly complex ‘hybrid’ (public–private) governance arrangements, and also

³² Steve Rayner, ‘The rise of risk and the decline of politics’, *Environmental Hazards* 7: 2, 2007, pp. 165–72; Sofie Bouteligier, ‘Inequality in new global governance arrangements: the North–South divide in transnational municipal networks’, *Innovation: The European Journal of Social Science Research* 26: 3, 2013, pp. 251–67.

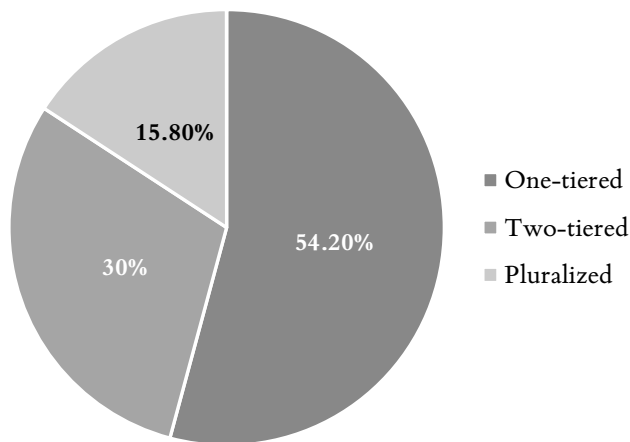
³³ See e.g. Mike Hodson and Simon Marvin, eds, *Retrofitting cities: priorities, governance and experimentation* (London: Earthscan, 2016).

³⁴ Mikael Román, ‘Governing from the middle: the C40 Cities Leadership Group’, *Corporate Governance: The International Journal of Business in Society* 10: 1, 2010, pp. 73–84.

into innovative modes of cooperation between cities as subnational actors. Our study has revealed that, while just over half (54.2 per cent) of the networks are still single-tiered, that is, centred on a single secretariat leading the whole organization, a substantial proportion (30 per cent) operate in two-tiered (with sub-networks) or even pluralized (15.8 per cent) forms of networked governance (see figure 4).

All this activity has a direct influence on many of the core institutions of world politics, from sovereignty to the UN system. To date, however, this influence has been acknowledged only by scholars of environmental politics and some health policy academics, having been essentially ignored in other fields of academia and in much of practical national policy-making. The important point in relation to the core multilateral structures of global governance is that the current proliferation of city networks has the capacity to further lock in 'fragmented' forms of governance, as a commonplace response to the limits of the state system.³⁵ This does not, however, always result in more and more institutionalized fragmentation, which would directly replicate multilateral gridlock in city diplomacy: as qualitative work on our dataset shows, many initiatives remain semi-formal, with varying degrees of regular meetings or established procedures for intra-network operations, and the involvement of the private sector often has depoliticizing effects on the operation of these networks, pushing them even further into technical and market-driven cooperation and away from government and governance. More investigation of this relationship is central to better understanding the revolutionary potential of city networks, and their practice of diplomacy in general, in relation to twenty-first-century 'gridlocks'. City diplomacy initiatives seem to be commonly subject to fragmentation, a core 'pathway to gridlock' highlighted by Hale and colleagues, rather than promoting intersectoral and cross-network forms of collaboration. This is an important issue to which we return in the next section.³⁶

Figure 4: The structure of city networks (n = 170)



³⁵ Frank Biermann, Philipp Pattberg, Harro Van Asselt and Fariborz Zelli, 'The fragmentation of global governance architectures: a framework for analysis', *Global Environmental Politics* 9: 4, 2009, pp. 14–40.

³⁶ Hale et al., *Gridlock*, p. 35.

Considering the form of governance of city networks tells us much about how policies, partnerships and innovations circulate among cities, and about how power relations are (re)cast between cities, corporate actors and multilateral bodies in a fragmented context of global governance. While the one-tiered mode of city networking still reflects the traditional mode of transnational governance, as in some advocacy networks such as UNESCO's Learning Cities Network, which pushes for inclusive education of all urban-dwellers, city diplomacy has been taking important steps towards specialization, with two-tiered networks offering international coverage but also concrete sub-coalitions with specialist applications. Specialization offers greater opportunities for engagement of multiple cities in specific applications, experimentation and cross-boundary collaboration beyond the larger advocacy role of city diplomacy. Equally, it offers the advantages of pooled procurement and specialized multi-country markets for the private sector.³⁷ This is the case for the C40's or ICLEI's sub-networks on, for instance, low-emission vehicles and local renewables, linking elements of the networks' membership and attracting specific business interests in transport and environmental services.

This consideration is key to linking governance lock-ins to their material manifestations on the streets of cities the world over. The role of the private sector (mainly business, but also not-for-profit organizations, both advocacy NGOs and philanthropic bodies) in city networking is expanding. Large industry bodies, huge corporations and now even smaller enterprises are increasingly plugged into the business of cities.³⁸ If we consider the major driver for the original establishment of a subset of the networks in our database, while city-led initiatives lay behind the majority (58 per cent), NGO-led efforts, mostly prompted by the private sector, account for a considerable 19 per cent of the total, only just behind efforts led by intergovernmental organizations such as UN agencies (23 per cent).³⁹ However, we should not *prima facie* dismiss pluralization as a complete and unconditional surrender to the compromises of liberal internationalism resulting from the capacity of large corporate actors to sway the direction and focus of city networking, or to the easy association of pluralist governance with fragmentation problems.⁴⁰ More radical cases of pluralized governance can offer a case for effective decentralization. Examples include the Partnership for Democratic Governance in south-east Asia, and a few nationally based networks (e.g. in El Salvador or Finland), which indicate the capacity of certain forms of city networking to decentralize action while maintaining coordination and unity in scope.⁴¹ The

³⁷ Román, 'Governing from the middle'; Acuto, 'The new climate leaders?'

³⁸ We borrow the expression from the extensive work in this sphere by our colleagues Greg Clark, Emily Moir and Tim Moonen. See Greg Clark and Emily Moir, 'The business of cities', research essay for the UK government's Foresight Future of Cities project (London: Government Office for Science, Oct. 2014), <https://www.gov.uk/government/publications/future-of-cities-the-business-of-cities>.

³⁹ Given the need to delve deeper (via document analysis and even some qualitative interviews) to appreciate this dimension, this analysis is based on a representative subset of 60 of the 170 networks analysed, of which 30 instances were city-led (e.g. C40 Group), 15 NGO-led (e.g. UITP, the International Association of Public Transport) and 15 IGO-led (e.g. WHO Healthy Cities).

⁴⁰ Steven F. Bernstein, *The compromise of liberal environmentalism* (New York: Columbia University Press, 2001).

⁴¹ It is perhaps not surprising that the large majority of 'pluralized' forms of city network governance are gener-

landscape of 'new' modes of governance currently being recast and possibly locked into the politics of urban affairs is therefore vast. This trend should not be reduced to simplistic accounts of a totalizing neo-liberalization; it can also explain important differences from the gridlocked interdependence of multilateralism. We need better to understand when and why cities network formally, what models of cooperation are 'sticking' as path-dependencies at multiple governance layers from supranational to subnational, and how cities choose to engage with the formal core of global governance as constituted by, for example, the UN, the OECD and the World Bank, or by contrast to network informally. These politics might tell us much about the direction of global governance in an urban age. Equally, they might encourage scholars of international affairs to engage more systematically with the materiality and the large technical systems at the heart of many contemporary questions of world politics.⁴² It is clear that these organizations have the potential to leave important path-dependencies inscribed not only in the way cities relate to each other (and beyond) politically, but also in the very concrete shapes of urbanization.

The consequences of city diplomacy

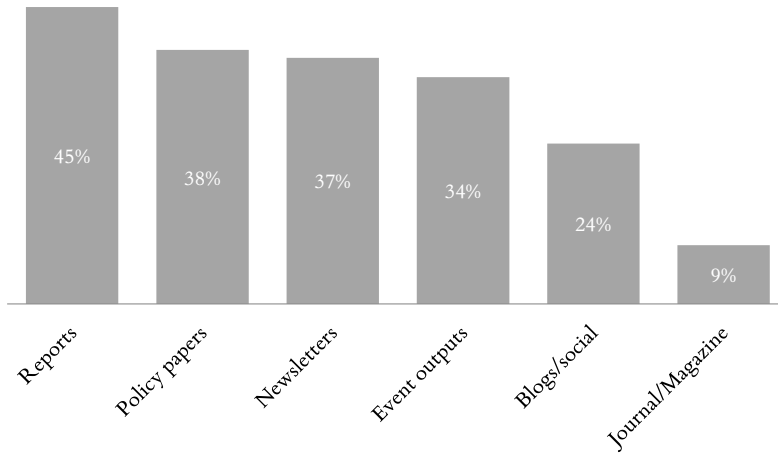
It is a point of critical importance, then, especially in view of the path-dependencies that city networks are imprinting onto the contemporary face of politics, that city diplomacy is most certainly not just about summitry. City networks are locking in the effects of city diplomacy on the ground of these cities, where governance is embodied in concrete, steel and stabilized everyday dwelling practices. The results of all of this city diplomacy do not end with its very visible imagery of mayors, public speeches and international events: there is a conspicuous 'experimental' activity of joint initiatives, for example to curb greenhouse gas emissions or encourage fair planning.⁴³ City networks produce regular reports (in 45 per cent of cases), joint pilots and policies (38 per cent) and information exchanges (37 per cent issuing newsletters, 9 per cent publishing magazines or journals, and 24 per cent maintaining blogs, social media accounts or online noticeboards) linking cities and spreading information, so it would be profoundly misleading to represent them, and the broader enterprise of city diplomacy, as expressed solely through the conferences reported in news magazines and blogs (see figure 5). Of course, this does not mean that the public diplomacy (or propaganda) function played by mayors and city leaders on these 'world stages' is no more than marginal; but it is fair to assert that the vast landscape of city networking is far deeper and more significant than simple branding.

ally focused on working on issues to do with democratic accountability and action to counter inequality. Curiously—and this is a point worthy of further investigation—this form of governance seems to be more common in Asia, south-east Asia in particular, than in the traditional 'global North' contexts of Europe and North America.

⁴² Mayer and Acuto, 'The global governance of large technical systems'.

⁴³ E.g. Maarten Hajer and Arnold Reijndorp. *In search of new public domain* (Rotterdam: NAI, 2001).

Figure 5: Outputs of city networks (n = 170)



City diplomacy does not end in network-making, involving as it does the production of a vast variety of documentation, policy, collaborative pilots and more, while also still maintaining alternative ‘sister city’, summit or one-off diplomatic channels. Even SCI, perhaps the most frequently cited case of this kind of city-to-city cooperation, is today revising its activities and governance mode in the direction of more complex and hybrid networking. Research on this ‘hybridization’ of city networking and its broader reverberations in global governance is, of course, much needed and still widely underdeveloped. Nonetheless, environmental studies analyses have already made substantial strides into the path-dependent consequences of the volume of city diplomacy currently in place. For instance, Harriet Bulkeley and Vanesa Castán Broto have recently highlighted the centrality to the exercise of (local) government of climate change ‘experiments’ that translate political action into concrete socio-technical structures ‘on the ground’.⁴⁴ Experimentation and piloting, so common now in many city networks, serve to create ‘new forms of political space within the city, as public and private authority blur, and are primarily enacted through forms of technical intervention in infrastructure networks’.⁴⁵ In these ways, cities seem to be acquiring greater room for manoeuvre in what can effectively be implemented through city diplomacy, while at the same time embedding important forms of public–private governance inherent in the delivery of these experiments and their extension into metropolitan and regional initiatives.

On top of these considerations, it is important to stress that networks are also becoming regular gateways through which business actors can make connections not just with individual cities but also within pools of cities (offering networked windows into market opportunities). While not discounting the importance of

⁴⁴ Harriet Bulkeley and Vanesa Castán Broto, ‘Government by experiment? Global cities and the governing of climate change’, *Transactions of the Institute of British Geographers* 38: 3, 2013, pp. 361–75.

⁴⁵ Bulkeley and Castán Broto, ‘Government by experiment?’, p. 361.

industry and business actors in delivering effective services at the municipal level, it is critical to pay more explicit attention to this process in the wider landscape of city networking. The attractiveness of city diplomacy, as noted above, is the opportunity it offers to reach widely disparate markets via a single group of networked cities, as in the case of the C40, ICLEI or UCLG sub-networks. Likewise, city networking offers a chance for key for-profit international actors such as Google and Microsoft to link into other domains of action, for example through their collaboration with the Emerging and Sustainable Cities initiative on infrastructure. However, as analysts of city networks have already pointed out, this process raises important geopolitical concerns: what lines of legitimacy and what forms of accountability are being inscribed into this more-than-local governance of urbanization? What North–South divides and big-business–small-business gaps are opening up in the sprawl of city networking?⁴⁶ Or, to paraphrase a popular recent book on the issue, if city diplomacy is a gateway for mayors to ‘rule the world’, at what price might this ruling come to fruition?⁴⁷ Of course, these are all critical questions whose analytical depth we have only begun to plumb; they deserve further consideration not only from scholars but also from practitioners in multilateral organizations and city diplomats themselves.

From gridlock to lock-in?

Considering political and material lock-ins in cities raises a central concern as to the issue of gridlock. Can cities overcome the limitations of the international system while offering innovative modes of cooperation, or is much of the city networking in place today simply replacing the problem of gridlock with the problem of unscrutinized lock-in? And, in this sense, what can the study of international affairs offer to such a complex but critical landscape of urban action?

To begin with, methodological study and broad views of global governance can help us make sense of the big (political) picture of this urban influence on world politics.⁴⁸ For example, as Emilie Hafner-Burton and colleagues have pointed out, network analysis holds much promise in international studies, in that it can highlight persistent patterns in and emergent properties of the networked structures of city diplomacy.⁴⁹ Symptomatic of the advances of environmental studies on this front, some preliminary enquiries in this direction have already begun; equal and comparative efforts are required in the fields of security, health and

⁴⁶ Taedong Lee, ‘Global cities and transnational climate change networks’, *Global Environmental Politics* 13: 1, 2013, pp. 108–27. The same point is made in Bouteligier, ‘Inequality in new global governance arrangements’, p. 252.

⁴⁷ Benjamin R. Barber, *If mayors ruled the world: dysfunctional nations, rising cities* (New Haven: Yale University Press, 2013).

⁴⁸ As argued in relation to the validity of global governance research by Thomas G. Weiss and Rorden Wilkinson, ‘Global governance to the rescue: saving international relations?’, *Global Governance* 20: 1, 2014, pp. 19–36.

⁴⁹ Emilie M. Hafner-Burton, Miles Kahler and Alexander H. Montgomery, ‘Network analysis for international relations’, *International Organization* 63: 3, 2009, pp. 559–92. It is unfortunately beyond the scope of this preliminary overview to offer a more refined network analysis of city networks—a task of critical importance in deeper investigation of the dynamics of city diplomacy.

culture, to name but a few areas.⁵⁰ Similar thinking, possibly well aligned with ‘assemblage thinking’ in IR, can also be applied to efforts to understand how the ‘networked politics’ of city diplomacy allows the networks themselves to emerge as actors on the international stage, thus offering a finer sensibility to scalar considerations in the story of how cities interact with global governance.⁵¹ A better understanding of the landscape of city networking can for example inform more systematic qualitative comparative analyses (QCAs) of city diplomacy, which in turn can maximize the number of comparisons that can be made across the network cases under investigation here via inferential logic.⁵² More constructivist and sociological approaches to international studies could also allow for a better investigation of the causal linkages between the ‘theatre diplomacy’ aspect of city summitry or cooperation and the vast piloting agency highlighted above as an experimental result of much of this transnational activity.⁵³ Thus the field is ripe for engagement and the tools at hand sharp enough to cut through the vast body of material we have begun to unpack with this dataset.

This is of course no purely theoretical enterprise. As the discussion above makes clear, it is imperative to open up the often hidden governance of city diplomacy as it is practised on the ground of today’s major metropolises. Considering the landscape of city networks and the possibilities of city diplomacy, then, becomes also an exercise in highlighting the responsibilities of city leaders the world over towards their urban citizenry. Decisions, policies and politics, and not least inequalities and societal *modi operandi* are locked into the steel and concrete of today’s metropolises, and likely to remain in place long after those who are networking cities today have gone. The implication of this line of reasoning is, in fact, a potentially normative one: city leaders should be held accountable for the lock-ins being built in the material texture of their cities and the institutional skeleton of global governance. If city diplomacy is after all contingent on the mediated transnational relations among cities, and between cities and other international actors, as conducted by *representatives* of these very cities (mayors and the like), then we should strive for these ambassadors of the ‘urban age’ to *own* the lock-ins to which they subscribe.

Some promising steps in the right direction, not just in terms of policy but also in terms of thoroughly depicting the landscape of the networked action of cities, have emerged in the last few years. For example, WHO Healthy Cities recently published a peer-reviewed evaluation of its ‘phase V’ (2009–2013), led by recognized academics in policy network analysis and, most importantly, containing an

⁵⁰ Philipp Pattberg and Oscar Widerberg, ‘Transnational multistakeholder partnerships for sustainable development: conditions for success’, *Ambio* 45: 1, 2016, pp. 42–51.

⁵¹ This emergent effect is discussed in Acuto, ‘The new climate leaders?’, and, more broadly, in Miles Kahler, ed., *Networked politics: agency, power, and governance* (Ithaca, NY: Cornell University Press, 2015). On assemblage thinking, see Michele Acuto and Simon Curtis, ‘Assemblage thinking and international relations’, in *Reassembling international theory* (Basingstoke: Palgrave Macmillan, 2014), pp. 1–15.

⁵² Benoît Rihoux and Charles C. Ragin, *Configurational comparative methods: qualitative comparative analysis (QCA) and related techniques* (London: Sage, 2009).

⁵³ Carl Death, ‘Summit theatre: exemplary governmentality and environmental diplomacy in Johannesburg and Copenhagen’, *Environmental Politics* 20: 1, 2011, pp. 1–19.

explicit discussion of the quality of the data, city responsiveness, and the realist synthesis approach deployed in its 'phase V' reporting.⁵⁴ Similar steps have been taken recently by the C40 in partnership with engineering consultancy ARUP and a few research centres including the Stockholm Environment Institute and University College London, and in the research conducted by the Global Observatory on Local Democracy and Decentralization (GOLD) of UCLG. Even so, while general practice seems encouraging, with 23.9 per cent of the networks observed producing regular reporting material, more could be done in the reflexive dimension (on methods, capacities and research needs) charted for instance by WHO Healthy Cities. These self-assessments might also provide the basis for important connections between cities, multilateral bodies and academics in the years to come. The level of their critical and reflexive approach remains, however, to be tested. As the structural implications of city diplomacy appear, at least on the basis of preliminary investigation in this database, to be substantial, widespread and cross-cutting, it seems only appropriate to urge that greater attention be paid to the influence of city networking in international affairs.

⁵⁴ Evelyne de Leeuw, Geoff Green, Agis Tsouros, Mariana Dyakova, Jill Farrington, Johan Faskunger and Marcus Grant, 'Healthy Cities phase V evaluation: further synthesizing realism', *Health Promotion International* 30: suppl. 1, 2015, pp. i118–i125.