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# Brief

## **City Networks for Sustainability: Goals Achieved and Future Developments**

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### **Abstract**

#### **FEEM Policy Brief**

In the last two decades, several cities and local governments coalitions, partnerships, networks, and alliances have emerged to tackle the issue of sustainability. They act as a collaborative and interactive tool to allow cities to formulate actions and policies and to interact with other cities, institutions, and firms in a transnational, and often in an autonomous manner from their upstanding level of governance. In this Policy Brief, we detail why policymakers might be interested in joining one of these, and what are the main typologies and form of actions that emerged in the previous decade. We conclude by highlighting advantages and issues that emerged from the applied and academic literature, and derive recommendations grounded on these considerations.

# 01

## Introduction

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### What are city coalitions and networks?

Cities are one of the most relevant actors in contemporary economic life (Fujita, 1989). More than 70% of the world population will live in urban areas by 2050, with more than 65 million relocating to urban areas (McKinsey, 2017). It is, therefore, to be expected for them to seek common planning and actions together with their peers. Indeed, in the second half of the last century, many forms of Networks and partnerships developed between cities, spanning a variety of topics, like cooperation, health (like the WHO “healthy city” network) and culture and creativity (as the case of UNESCO Creative Cities network).

What do we mean by city networks? Davidson et al. B (2019b) report a precise definition: a formalized organization, with cities as their principal members, and with reciprocal and established patterns of communication policy-making and exchange.

In the last two decades, in parallel to rising concerns about the environment, we observed the rise of environmentally friendly networks, which constituted 29% of over 300 established organizations already in 2016 (Acuto, 2016). In their review, Davidson et al. (2019a) identify at least nine major transnational city networks related to environment and sustainability topics or “urban climate networks”. Indeed, urban centres consume more than two-thirds of global energy and emit more than 70% of

total GHG (McKinsey, 2017); therefore the actions taken at the city level are and will be of paramount importance to reverse anthropic climate change. To this factor, we must also add the potential vulnerability of cities to climate change impacts (Bulkeley and Betsill, 2013).

Davidson et al., (2019a) evidence that this emergence could be a consequence of a perceived failure by national and state actors towards addressing global warming, in particular before and during the events at COP 2015. For sure, environmental issues are an “urban-driven” question, and therefore it seems logical that the leading actors at the city level, from Mayors to City Councils felt the need to associate with their peers to obtain more weight and voice with regards to these topics. Networks also facilitate exchange and comparisons by city leaders as peers. Bulkeley and Betsill, (2013) refer that we might observe a phase of passage from “municipal voluntarism”, namely the application of mitigation measures within contained municipality boundaries, to one of “strategic urbanism”, or the search for proactive, collective and transnational solutions. The actions undertaken in practice can then take different forms. Often there will be some experimentation of measures by single cities that can then be summarized and transmitted to the other components. The transmission is helped by the network itself, with different dissemination practices, including summits,

workshops, and initiatives, alongside the publication of reports and guidelines, but also monitoring activities.

Fondazione Eni Enrico Mattei (FEEM) is interested in the topic due to its potential impact on the sustainability of cities. An example of this interest was the webinar “Le reti di città per la sostenibilità: obiettivi raggiunti e futuri sviluppi”, held on 09/07/2020” .

In the remainder of this section we will present very briefly some examples of the most influential organizations of the last decades:

- **C40 Cities Climate Leadership Group:** Founded in the UK in 2005, C40 is one of the most famous and relevant city Networks. It includes 96 cities, home to more than 650 million people (and accounting for 25% of global GDP) (Davidson et al., 2019). It delivered over 14000 Climate Actions, and C40 cities have participated in various initiatives (such as the Conference of Parties and the Rio+20 summits), lobbied national governments, and cooperated with corporations (e.g. the Siemens technical partnership). C40 has also developed thematic sub-networks and worked on joint efforts bridging health and climate with WHO Healthy cities. Regarding climate actions, 75% were then adopted by other cities, and 95% were scaled up to the whole metropolitan area (Acuto, 2016).
- **ICLEI – Local Governments for Sustainability:** Founded in 1990 in New York City, includes nowadays more

than 1750 local governments in over 100 countries. It provides consultancy, training, and information services to reach sustainable development objectives.

- **100 Resilient Cities:** being launched in 2013 and funded by the Rockefeller Foundation, it has funded over 80 City resilient strategies with 4000 actions and strategies, also institutionalizing the figure of “Chief Resilience Officer” in over 83% of its members. In July 2019 it concluded its first phase of activity, transitioning to the Global Resilience Cities Network.
- **UCLG, United Cities and Local Governments:** founded in Paris in 2004, and currently headquartered in Barcelona, is an international membership organization, with over 240000 members in more than 140 Countries. It aims to enhance the participation of its members to global governance, and aid learning by its members with monitoring and reporting.
- **Global Covenant of Mayors for Climate & Energy:** Established in 2016 in Brussels, is a coalition of city leaders focused on cutting emissions and impact climate change. It is an interesting example of a coalition that emerged from already existing ones: it resulted from the fusion of two previous groups, the Compact of Mayors (an agreement by C40, ICLEI, and UCLG) and the Covenant of Mayors (from the European Commission).

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<sup>1</sup> <https://www.feem.it/it/eventi/seminari/feem-webinar-le-reti-di-citta-per-la-sostenibilita-ita/>

# 02

## Joining a network

Cities might decide to join a Network to access a wealth of expertise and relationships to help improve their actions against climate change and other environmental topics. This action will require a work of evaluation.

For instance, one first dimension is to correctly frame the City standing and economic size with regards to evaluated network structures. As the number and structure types of coalitions grow, different joining solutions will become available, and this could be true also within

single networks.

Rather than providing a taxonomy of all the possible organizational forms and available instruments, to help the evaluation procedure by the policymaker, we proceed to list some of the insights relayed to the key areas to consider that emerged from recent academic works. This document could then act as a starting point and a first guide to build subsequent actions in an informed manner.

# 03

## Key issues to evaluate when joining city networks and coalition

In this section, we will highlight the emerging trends in urban city networks and coalitions. We will present them in different sub-themes: Shape of the Networks/Coalitions and their governance, their Activities, and their Funding.

### Shape and governance

One factor to be considered is how diversified the current networks and coalitions are becoming in terms of composition, hierarchy, and sub-units numbers and variety. Cities might then consider in advance which solution to

adopt. For instance, the C40 network could be considered as a collection of “multiple C40s”, composed of the underlying global organization and steering committee and the groups of Mayors and Cities (Acuto and Ghoieh, 2019). The networks will also vary according to their internal governance structure and the organization of themed subcommittees. For instance, compared to C40, ICLEI and UCLG are endowed with a greater variety of Committees; the UCLG has many chapters, of which the “Metropolis” one includes 139 members (Acuto

and Ghoieh, 2019).

The networking growth of the last years consolidated the status of many organizations, also bringing the collaboration between cities from mere contacts to more organized shapes of governance (Davidson et al., 2019a). Wolfram et al. (2019) evidence the emergence of a debate on the politics of mitigation and adaptation, and new governance experiments, within the emergence of new stakeholder interactions and institutional arrangements. Moreover, Network Shapes and Governance are made more complex by the presence of additional actors operating within and alongside the networks. Indeed, Bulkeley and Betsill, (2013) refer to a new urban climate politics with different actors engaged: the corporations in the energy, property, and finance sectors, alongside non-profit and non-governmental organizations.

Another tendency is that, as more Networks and Coalitions obtain international recognition, they will foreseeably start to cooperate. One relevant example is the initiative of the Global Covenant of Mayors, brought forth by C40, IGLEI, UCLG, and the European Commission. This governance evolution towards more complex arrangements prompted an academic debate that is still not settled. For instance, Davidson et al., (2019b) identify three main themes that should capture additional attention by the academic world (the authors discuss these themes referring to the C40 Network, but most of these concepts could be generalized to other networks as well). The first is the Political Economy of the Network (who decides in the direction of the actions of the network?). These organizations must indeed mediate the instances of the City

Governments, but also of the related partners, such as the international businesses and other philanthropic actors, notwithstanding the own diplomatic profiles of the Networks themselves. The second is knowledge dynamics (how is the knowledge originated and transmitted within the networks?). The third regards the effects and feedback from the network action to the other traditional local institutions. Indeed, with regards to the interaction with the other Governance structures where cities are embedded, the urban coalitions' actions seem to expand and influence other actors outward rather than upward, despite an underlying potential in becoming strategic partners and motivators. Moreover, the network composition by different actors could result in a complex power relation that might privilege some sectoral or regional rationale compared to the collective purpose (an example is that most actions come from US and European cities over their other counterparts).

Davidson et al., (2019b) report from policy mobility studies that networked governance could come with a politicization of knowledge and that some of these governance models might pose the risk of being “less transparent and understandable”.

## **Activities**

As one of the reasons to join a city network is to develop bolder actions to foster sustainability, their activities are very relevant to evaluate the network's outcomes. These activities, however, can vary from group to group, and also within groups as time passes by.

Indeed, the time spent in activity in the last years also contributed to evolving the set of urban networks' very core tasks. C40,

for instance, is observed to be moving from an array of match-making activities and coordination to one of direct provision of technical assistance (Acuto and Ghoieh, 2019). This seems to be expected, as the groups acquire and synthesize applied knowledge. It is also expected that, as some networks like C40 become more specialized in monitoring tasks, driven by the new paradigm of data-driven policy, additional ties will be developed alongside international consultancies firms (Acuto and Ghoieh, 2019).

The heterogeneity of the activities could be exemplified by work on urban experiments (Broto and Bulkeley, 2013), that study 627 urban climate experiments from a sample of 100 cities, and evidence a heterogeneous mix of actors, technologies, and arrangements. Cities often rely on the different forms of partnerships to develop experimentations practice, and we can find in these features one of the main motivation in joining an urban network.

Another interesting question is what sort of stylized facts could be inferred for the distribution of the activities and their transmission. Lee and Van de Meene (2012) study forty members and nineteen affiliate members of the C40 and formalize a social network analysis on who and from whom cities transmit information and policy change. They find that mutual learning and ties are facilitated by the presence of a committee of multiple stakeholders, higher levels of experience, and have common languages and regional contexts. Moreover, North America and Europe show a degree of regional homophily. Learning ties in the network seems, therefore unevenly distributed, challenging the assumptions about

horizontal relationships and mutual interaction. One emerged issue about Network activities is that since they could be more efficient than traditional planning methods, they could also lead to potentially disruptive actions. This seems, however, to be not confirmed, at least by some works. Heikkinen and Juhola (2019) look at a sample of 12 cities participating in the C40 network and proceed to classify the change proposed by adaptation and mitigation measures. They find that most of the proposals are incremental rather than transformational. Wolfram et al., (2019) review eight works on the learning processes in urban climate governance, and find that these practices seem to play more of an incremental adjustment rather than a radical systemic change. It would be therefore interesting to evaluate if a potential transformation of City Networks from “aggregators” to roles more pivoted towards consultancy and technical advisory could explain this tendency.

Cities will also need to properly assess the feasibility of ambitious targets, focusing on implementation and results rather than to foster political ends; (Bulkeley and Betsill, 2013). This will require some considerations in goal-setting and managing expectations.

## **Funding**

As in the case of the activities, also the array of Donors and Funders seems to portray a transition towards a more flexible model. While originally many of the networks relied on their founders' resources, it has been noted how in the last years, many groups received support from different actors, a fact that will surely act as a strong motivation and encouragement from the point of view of cities willing to join. For

instance, recently the C40 network diversified its donor's group composition, including national governments like the UK one, but also private companies, like L'Oréal, GIZ, and EAT (Acuto and Ghoieh, 2019). The same authors also evidence how, in addition to funding, Networks are becoming intertwined in more complex relationships with a set of national and international actors like the World Bank and the Inter-American development bank.

Considerations about funding should also focus on the resource distribution between the network members. For instance, the C40's 14000 climate actions should cost approximately 375 billion and distributive issues matters as the low-end threshold of 15000 dollars per capita for 2020 participation could exclude cities which are high emitters (Davidson et al., 2019a).

## Conclusion

- Urban climate networks and coalitions emerged because they could lead to faster programs and actions compared to conventional means. Moreover, they can also enhance the standing of local government in interfacing with their peers and with international governance.
- The programs and actions include policy measures and experiments in the fields of adaptation, mitigation, and resilience-building to climate change. Successful ones can be advocated, refined and diffused within the network. The network could monitor this expertise building, provide consultancy, or directly recommend the most successful policies.
- Reviews of the literature on samples of cities show that the actions that emerged from networks seem to have a more incremental nature rather than a disruptive one.
- As the networks grow in number, sizes, and composition, multiple solutions become available, even within the same organization. As some of the sub-committees of major coalitions become as wide and influential as whole networks, the policymaker should compare the advantages of the different structures available. Multiple solutions could also be joined simultaneously, which means that an investment in evaluating the attainable scale economies could greatly amplify the effectiveness of the policies' future paths.
- It must be evaluated if the style of policy fostered by the specific network corresponds to the one advocated by the relevant policymaker.
- Joining a Network will open relationships with a variety of actors. In the last years, the concept of "Urban Climate Networks" transitioned from mere direct contacts between cities to a web of connections that includes private businesses (mostly in the energy, construction, and consultancies sectors), NGOs, NPOs, International Institutions, and the Networks (as organizations) themselves. This tendency is related not only to the policy formation and evaluation processes but also to the funding and financial aspects.



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