

Urban Maestro

New governance strategies
for Urban Design

Promoting urban co-governance

Towards just and democratic
ecological and digital transition
in cities (IT)

Alessandro Antonelli
Elena De Nictolis
Christian Iaione

UN HABITAT
UNITED NATIONS HUMAN SETTLEMENTS PROGRAMME

BOUWMEESTERMAITREARCHITECTE

UCL

This project has received funding from the European Union's Horizon 2020 research
and innovation programme under grant agreement n° 831704



TABLE OF CONTENTS

INTRODUCTION	3
1. EXAMPLES FROM ITALIAN CITIES AND MORE.....	3
2. ZOOM-IN ON ITALIAN EXPERIENCES.....	8
2.1. Turin (Piedmont, Italy):.....	9
2.2. Naples (Campania, Italy):.....	13
2.3. Reggio Emilia (Emilia Romagna, Italy):	15
2.4. Rome (Lazio, Italy):	18
3. CONCLUDING REMARKS.....	20

INTRODUCTION

The present work aims at analyzing the examples of some Italian cities that have been experimenting with new legal tools that allow for implementation of innovative forms of urban partnership to promote sustainable urban development. Turin (Piedmont, Italy), Naples (Campania, Italy), Reggio Emilia (Emilia Romagna, Italy), and Rome (Lazio, Italy) have implemented urban laws and regulations experimenting with different degrees of intensity forms of co-governance of the urban commons (and with the use of legal tools, including public procurement, to promote civic entrepreneurship and social innovation to address pressing urban policy challenges including digital transition, urban poverty, energy efficiency, and inclusive urban development). The Co-Governance refers to the presence of a multi-stakeholder governance scheme whereby the community emerges as an actor and partners up with at least three different urban actors of the so-called Quintuple Helix model of Innovation. We define urban commons to mean tangible or intangible socially constructed resources, assets, services, and infrastructure in cities. These can be publicly or privately owned. Either way, urban commons can provide access to critical goods and services and therefore guarantee fundamental rights—housing, food, etc.—to urban residents and generate added value for the local community. Within these initiatives and the partnerships that are promoted, a pivotal role is played by the Universities and the Research Centers that often appear as fundamental actors of urban innovation.

1. EXAMPLES FROM ITALIAN CITIES AND MORE

Starting in 2011, Italian cities have been experimenting with new legal tools that allow for the implementation of innovative forms of urban partnership to promote sustainable urban development. This showed an emerging interest in the topic of the urban commons, representing a form of collective sharing, management, production and ownership of critical urban resources, services and infrastructures (e.g., spaces, buildings and other underused assets). Much of the literature in this area has focused on institutional approaches through which city governments can govern urban commons with city residents and various other social and economic stakeholders. This literature is inter- and trans-disciplinary and contains many

different intellectual or conceptual strands. Academic literature on the urban commons indeed tends to be normative, either heavily theoretical or explicitly ideological. Many scholars writing about the urban commons are devoted to understanding the processes that result in collective action, or cooperation, in the governance of shared urban resources by NGOs or unorganized city residents¹. Some scholars define the commons not merely as shared resources but also as a process of social cooperation that reconfigures the relationship between city residents and city administrations². Within the literature on institutional approaches to the urban commons, Sheila Foster and Christian Iaione have argued that urban commons are goods—squares, parks, dismissed buildings, vacant lots, roads - that are part of the collective resources of cities and require a more open governance regime than currently exists in most cities³. Others conceive of the commons as an institutional arrangement defined by three different elements:⁴ a resource critical for the existence, survival or wellbeing, of a community, a collective governance resource management scheme⁵, and the active role of users in this collective governance scheme.

Apart from notable exceptions such as the work of Harini Nagendra and Elinor Ostrom and that of Amanda Huron, the scholarship on the urban commons is almost completely conceptual, lacking an empirical focus and failing to place under empirical investigation the many applied experiments conducted to date by policymakers. The scholarship on the urban commons also lacks a focus on the role of the commons to achieve stronger urban economies and more inclusive urban prosperity. An economic democracy perspective, as embraced here, advocates for expanding the access to power in economic institutions such as firms and corporations to employees through the diffusion of workers-owned enterprises or self-governed enterprises⁶, within an economic system based on solidarity and reciprocity⁷. An urban economic democracy approach implies a more intense or direct role for city inhabitants in the production and redistribution of the value produced by a vibrant and successful city economy. Urban policies that are directed

*Article note: This Article is the result of a collaborative work, although Introduction, Parts 1, 2, and the Conclusion are to be attributed to Christian Iaione; Parts 3 and 4 are to be attributed to Elena De Nicolis.

¹ Melissa Garcia Lamarca, "Insurgent Acts of Being-In-Common and Housing in Spain: Making Urban Commons?" In *Urban Commons Moving Beyond State and Market* 165 edited by Mary Dellenbaugh et al., Basel: Birkhäuser, 2015. See Also Alexandros Kioupiolis, *The Common and The Political. Commons, Communities and Counter-Hegemonic Politics for The Common Good: Rethinking Social Change* (Edinburgh: Edinburgh University Press, 2019).

² Christian Borch & Martin Kornberger, *Urban Commons: Rethinking the City* 169 (New York: Routledge, 2015).

³ Sheila Foster and Christian Iaione, "The City as a Commons", *Yale Law and Policy Review* (2016) 34.281.6

⁴ Tine De Moor, "Avoiding Tragedies: A Flemish Common and its Commoners under the Pressure of Social and Economic Change during the Eighteen Century", *Economic History Review*, (62) (2009).

⁵ Brett Frischmann et al, *Governing Knowledge Commons*, (Cambridge University Press, 2014).

⁶ Robert Dahl, *A Preface to Economic Democracy*. (Berkeley and Los Angeles: University of California Press, 1985); Tom Malleon, *After Occupy_ Economic democracy for the 21st Century*, (Oxford: Oxford University Press, 2014): 23.

⁷ Karl Polanyi, *The great transformation*, (Boston: Beacon press, 2010).

towards achieving such an economic democracy approach should aspire to uplift not just individuals, but entire urban communities, as argued by Richard Schragger⁸, and focus on stimulating the creation of community-based development institutions and enterprises that are interdependent and networked at the urban level⁹. As scholars who have studied the preservation of urban lakes in Bangalore¹⁰ and the housing commons in Washington DC¹¹ have shown, the city and the residents of cities can work together. When they do, they generate better economic and social outcomes for local communities.

We define urban commons to mean tangible or intangible socially constructed¹² resources, assets, services, and infrastructure in cities. These can be publicly or privately owned. Either way, urban commons can provide access to critical goods and services and therefore guarantee fundamental rights—housing, food, etc.—to urban residents and generate added value for the local community. We argue that the governance of urban commons can be enabled by city policies that stimulate collaboration and cooperation between several urban actors in order to enable or improve the enjoyment of benefits that flow from these efforts for a wider range of city inhabitants. However, we argue that city enabled solutions are valuable only when they generate public-community partnerships¹³ that recognize community stewardship rights (*i.e.* rights of use, co-management, co-production, co-ownership)¹⁴ and enable their economic self-sustainability. We define these collaborative and cooperative schemes as forms of “co-governance”¹⁵ of the urban commons.

The economic power of cities on the one hand and the impact of global economic phenomena on cities on the other are great concerns of urban analysis. Urbanization is an emerging trend, and it is both a potentiality and a factor of crisis. Urbanization

⁸ Richard C. Schragger, “The Political Economy of City Power”, *Fordham Urban Law Journal* 44, 91 (2017).

⁹ David Imbroscio, “Urban Policy as Meritocracy: A Critique”, *Journal of Urban Affairs*, 38 79 (2015).

¹⁰ Harini Nagendra and Elinor Ostrom, “Applying the Social-Ecological System Framework to the Diagnosis of Urban Lake Commons in Bangalore, India”, *Ecology and Society*, 19 (2) 67 (2014).

¹¹ Amanda Huron “Conclusion: Keep Practicing.” In *Carving Out the Commons: Tenant Organizing and Housing Cooperatives in Washington, D.C.*, Minneapolis, London: University of Minnesota Press, 2018, 166.

¹² Michael J. Madison, Brett M. Frischmann and Katherine J. Strandburg, “Constructing Commons in the cultural

environment”, *Cornell Law Review* 95:657 (2010); Massimo De Angelis, *Omnia Sunt Communia: On the Commons and the Transformation to Postcapitalism*, (London: Zed Books, 2017).

¹³ Christian Iaione, “Governing the Urban Commons”, *Italian Journal of Public Law*, 7, 1, (2015) 170; Christian Iaione and Elena De Nictolis, “The Role of law in relation to the New Urban Agenda and the European Urban Agenda: a multi-stakeholder perspective”, in *Law and the New Urban Agenda: A Comparative Perspective*, edited by Nestor Davidson and Geeta Tewari New York: Routledge, 2020.

¹⁴ Dan Wu and Sheila R. Foster, “From Smart Cities to Co-Cities: Emerging Legal and Policy Responses to Urban Vacancy”, *Fordham Urban Law Journal*, 47 909 (2020).

¹⁵ Jan Kooiman, *Governing as governance*, London: Sage, 2003; Christian Iaione and Paola Cannavò, “The collaborative and polycentric governance of the urban and local commons”, *Urban pamphleeter*, 5 (2015); Sheila Foster and Christian Iaione, “The City as a Commons”, *Yale Law and Policy Review* (2016) 34.281.6; Christian Iaione, “The Right to the Co-City”, *The Italian Journal of Public Law*, 15, 1, 80 (2017); Christian Iaione, Elena De Nictolis, Anna Berti Suman, “The Internet of Humans (IoH): Human Rights and Co-Governance to Achieve Tech Justice in the City” *Law and Ethics of Human Rights*, 2 (2019).

has helped populations escape poverty through increased productivity, employment opportunities, and large-scale investment in infrastructure and services. The United Nations (U.N.) estimates that 54% of the global population lives in cities¹⁶. Cities' roles are increasing from many standpoints. One of the main factors of cities' growth is economic. Cities are engines of both production and consumption of goods and services, and are a major source of economic production and growth. Eighty percent of global gross domestic product (GDP) is currently accounted for by cities, and their contribution to national income is sometimes greater than their share of the national population¹⁷. This might result in cities rivalling nation-states in power and influence¹⁸. By 2030, people living in large cities will account for as much as 81% of global consumption. By the same date, global urban consumption is expected to grow by \$23 trillion with 3.6% compound annual growth rate¹⁹. This growth in consumption will be likely concentrated in thirty-two cities²⁰. Public law scholars like Jean Bernard Auby²¹ highlighted that the renaissance of cities and the growing importance of cities in comparison to power of nation states²² is an important historical phenomenon. Political scientist Benjamin Barber has commented that one of the main differences between local and national politics lies in the pragmatic orientation of the governance approach that mayors adopt in order to solve problems of everyday urban life, often lacking at the national level²³. Moreover, as Porras²⁴ outlined, prominent legal scholars, proponents of localism, such as Frug, Blank and Barron, have situated cities and associations of cities as a new influential actor in the international policy making arena. Cities affirmed their status as sites of self-governing communities, an alternative to democratization beyond the state²⁵.

¹⁶ UN-Habitat, *Urbanization and Development: Emerging Issues*. World Cities Report 2016 iii (2016).

¹⁷ *Id.* at 31.

¹⁸ Robert Muggah & Benjamin Barber, *Why Cities Rule the World*, IDEAS.TED.COM (May 31, 2016), <https://ideas.ted.com/why-cities-rule-the-world/>.

¹⁹ MCKINSEY GLOBAL INST., *URBAN WORLD: THE GLOBAL CONSUMERS TO WATCH 4* (2016).

²⁰ Those thirty-two cities are distributed in the following way: twelve in the China region (Beijing, Chengdu, Chongqing, Guangzhou, Hangzhou, Hong Kong, Nanjing, Shanghai, Shenyang, Shenzhen, Tianjin, and Wuhan); eleven in the United States (Atlanta, Georgia; Boston, Massachusetts; Chicago, Illinois; Dallas, Texas; Houston, Texas; Los Angeles,

California; Miami, Florida; New York, New York; Phoenix, Arizona; San Francisco, California; and Washington, DC); two each in Northeast Asia (Osaka and Tokyo, both in Japan), Latin America (Mexico City, Mexico, and São Paulo, Brazil), and South Asia (Delhi and Mumbai, both in India); and one city each in Western Europe (London in the United Kingdom), the Eastern Europe and Central Asia region (Istanbul, Turkey), and Southeast Asia (Jakarta, Indonesia). MCKINSEY GLOBAL INST., *URBAN WORLD: THE GLOBAL CONSUMER TO WATCH 14* (2016).

²¹ 6 J.B. Auby, *The Role of law in the legal status and powers of cities*, 2 IJPL 302, 305 (2013).

²² Khanna has stated that we are moving into an era where cities will matter more than states P. Khanna, *Connectography: Mapping the future of globalization* (2016).

²³ B. Barber, *If Mayors Ruled The World* (2013).

²⁴ I.M. Porras, *The city and international law: in pursuit of sustainable development*, 36 *Fordham Urb. L. J* 537-538 (2009).

²⁵ I.M. Porras, *The city and international law: in pursuit of sustainable development*, *cit.* at 9, 537-538.

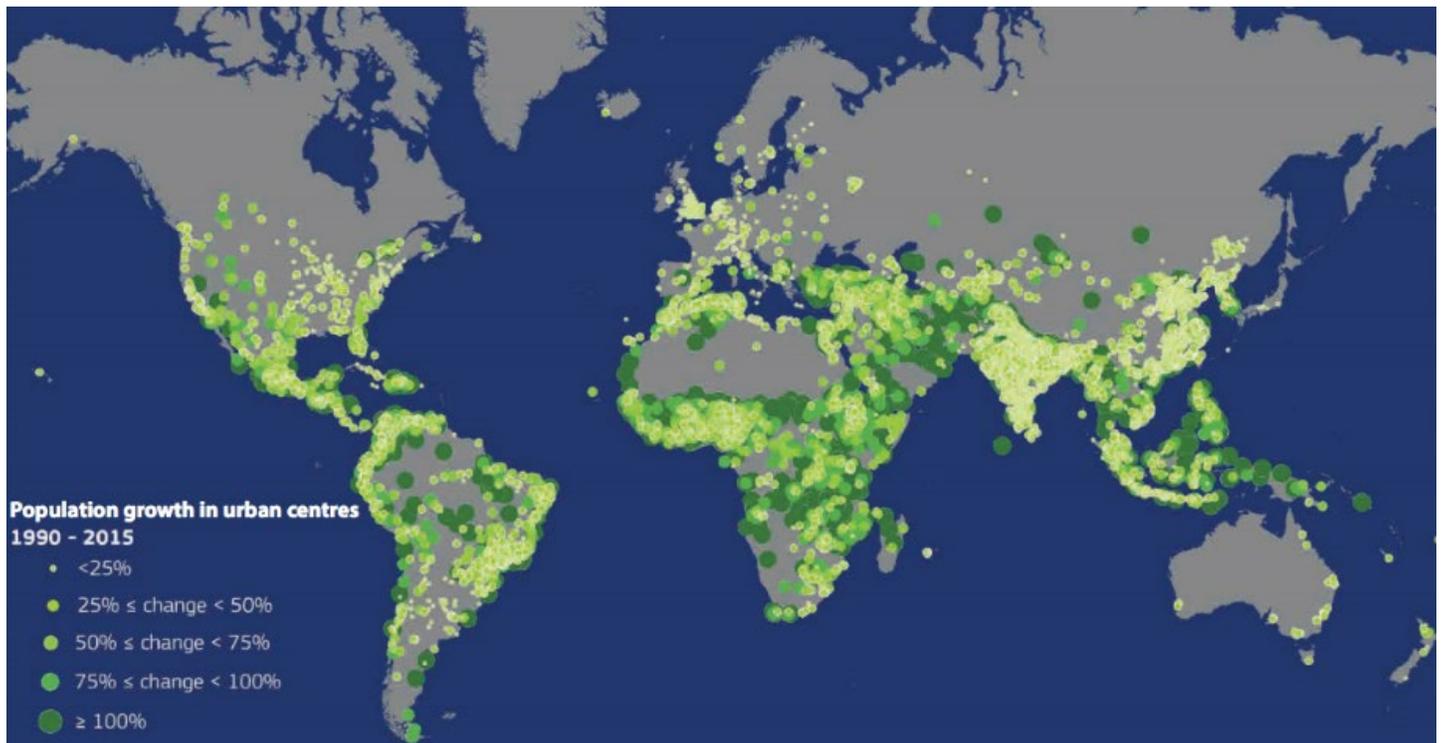


FIGURE 1: Population growth change in city urban centres between 1990 and 2015. Credits: JRC | Florczyk et al., 2019, <https://ghsl.jrc.ec.europa.eu/ucdb2018Overview.php>

The vision of the city enshrined in the New Urban Agenda (NUA) is that of a sustainable urban development that aims at ending poverty and achieving an inclusive urban prosperity²⁶, similar to the vision expressed by the U.N.'s 2030 Agenda for Sustainable Development. The NUA is closely related to the U.N.'s 2030 Agenda and the Sustainable Development Goals (SDGs), although the connections between the two global agendas are only informal²⁷. This vision is expressed with a right to the city approach, when the NUA establishes that:

We share a vision of cities for all, referring to the equal use and enjoyment of cities and human settlements, seeking to promote inclusivity and ensure that all inhabitants, of present and future generations, without discrimination of any kind, are able to inhabit and produce just, safe, healthy, accessible, affordable, resilient and sustainable cities and human settlements to foster prosperity and quality of life for all. We note the efforts of some national and

²⁶ G.A. Res 71/256, annex, New Urban Agenda (Dec. 23, 2016) [hereinafter New Urban Agenda].

²⁷ Sandra C. Valencia, et al., Adapting the Sustainable Development Goals and the New Urban Agenda to the City Level: Initial Reflections from a Comparative Research Project, 11 INT'L J. URB. SUSTAINABLE DEV. 4, 4–23 (2019).

local governments to enshrine this vision, referred to as ‘right to the city’, in their legislation, political declarations and charters²⁸.

The NUA brings opportunities and challenges for urban policy and practice in light of the implementation of SDG 11, “Cities and Communities”²⁹. The city model designed by the NUA is close to the urban model designed by the scholarship on the sustainable city. A key emerging feature related to the increasing relevance of cities at the global level is their capacity to foster multi-stakeholder urban governance or “urban co-governance” approaches to address complex urban challenges. This is reflected both in literature on urban co-governance and in the NUA. We advance the hypothesis that the right to the city approach, endorsed by the NUA through its sustainable urban development vision, can be locally implemented not just by including references to the “right to the city” in legislation³⁰ but also through urban co-governance. This entails the adoption of a multi-stakeholder approach stressing the role of public actors, private actors, non-governmental organizations (NGOs), and urban citizens that the NUA foresees in some of its provisions. We will investigate how this approach can be implemented through the analysis of concrete experimentations carried out by Italian cities, which foresee a co-governance approach to realize a sustainable and inclusive urban development and support the creation of urban innovation partnerships that are multi-stakeholder (public-community and public-private community partnerships).

2. ZOOM-IN ON ITALIAN EXPERIENCES

Many EU cities have implemented urban laws and regulations experimenting with different forms of co-governance of the urban commons in varying degrees of intensity. The case of Italian cities gained prominence due to early and bold experimentations, chiefly the case of Bologna and its “Regulation for the care and regeneration of the Urban Commons”. Italy presents several cases studies that are particularly innovative, and some of them even inspired other European cities, in some cases in a sort of regulatory wave or regulatory race towards the urban commons. This results in a comprehensive and critical analysis allowing mutual

²⁸ New Urban Agenda, supra note 6, 11.

www.un.org/sustainabledevelopment/cities/ (last visited Oct. 15, 2017).

²⁹ See Goal 11: Make Cities Inclusive, Safe, Resilient and Sustainable, U.N. SUSTAINABLE DEV. GOALS,

³⁰ New Urban Agenda, supra note 6, 11.

learning among cities, and a range of legal tools are emerging in this scenario at the global level.

For example, the Italian Code of Public Contracts approved in 2016 allows for administrative barter or social partnerships, with interventions pursuant to the principle of horizontal subsidiarity. Bologna pioneered model regulations for the co-governance of the urban commons, which is being replicated by many other Italian cities³¹. Naples has recognized a right to civic and collective use of the urban commons, while the city of Reggio Emilia issued a regulation for urban labs and neighborhood agreements. Milan has implemented a model based on concession of city-owned buildings for social use³².

Those cities, and many other European cities, are addressing this policy theme under the same normative framework and are experimenting with the use of legal tools, including public procurement, to promote civic entrepreneurship and social innovation to address pressing urban policy challenges including digital transition, urban poverty, energy efficiency, and inclusive urban development. In some of these cases, urban laws experimenting with innovative governance of urban commons, services, and infrastructure align with the NUA's principles, and their goals are supported by EU urban programs specifically designed by the EC to support urban innovation, namely the UIA and URBACT. Initiatives such as the UIA configure a body of law of urban communities at EU level, envisioning the legal challenges and possible solutions emerging from practices produced in cities during the current phase of change and adaptation.

2.1. Turin (Piedmont, Italy):

A regulation for governing the urban commons and an UIA project to empower urban communities to carry out sustainable governance of urban assets and services.

The Co-City Turin project³³ started with the approval of an adapted version of the Bologna Regulation for the urban commons, supported by the EU as a UIA project on public procurement innovation for urban renewal. The Co-City project initiated a discussion among legal scholars that raised crucial reflections with regard to the

³¹ Sheila R. Foster and Christian Iaione, *The City as a Commons*, 34 *YALE L. & POLY REV.* 281 (2016)

³² The deliberation was approved in 2012. Milan assigned buildings to NGOs through a public call followed by the presentation of proposals by city inhabitants. The call evolved and currently stresses the role of the economic plan (which

must highlight the projects' sustainability as a key factor to be taken into consideration for the evaluation). See Aree Tematiche, COMUNE DI MILANO, www.comune.milano.it/aree-tematiche/spazi-per-attivita-ed-eventi/spazi-assegnati (last visited Feb. 16, 2021).

³³ Co-City – The Collaborative Management of Urban Commons to Counteract Poverty and Socio-spatial Polarization, URB. INNOVATIVE ACTIONS PROJECT, www.uiainitiative.eu/en/uiia-cities/turin (last visited Oct. 20, 2019).

legal nature of the pacts of collaboration within Italian legal frameworks, but also EU law.

The main distinction that emerged is between two approaches. The first one envisions the pacts of collaboration as a form of administrative action and therefore the public administration's power. According to this approach, opinions ranged over time from the qualification of the pact as an administrative agreement pursuant to Article 11 of Italian Administrative Procedure Act (approved through Law No. 241/1990)³⁴ on administrative procedure. A different position expressed during the meeting was to construe the pact of collaboration as a form of incentive under Article 12 of the Italian Administrative Procedure Act. A second interpretative option reads this legal innovation pursuant to the principles regulating public-private partnerships (PPP), or more generally the law on public contracts and therefore public procurement. An interesting stance under this approach would be that the pacts of collaboration for the urban commons should be reconceived as an implementation of a "social partnership" as a form of public-community partnership³⁵. Article 190 foresees two possible ways for implementing a social partnership, one where the city can issue a public procurement procedure dedicated to projects designed by citizens and projects initiated by city inhabitants. A second approach within this stance is that the legislation on social services and more recently the new "Code on the Third Sector," which regulates not-for-profit activities, might be relevant as well³⁶.

According to different positions, which emerged during a debate on the Co-City project held at the National Association of Italian Cities, the pacts of collaboration should not be conceived as a form of administrative action and therefore consensual exercise of authoritative activity³⁷. The public-private partnership or public contract legislation might instead be useful, but it should be reconciled with the true nature of this activity. It is an unprecedented form of institutional and public governance innovation, which is expressed through a non-authoritative activity of the city government. It sometimes might imply the need to deal with public procurement rules, but its legal nature should be further investigated. Its morphology is clear

³⁴ For the text of Law No. 241/1990 in Italian, see Nuove norme in materia di procedimento amministrativo e di diritto di accesso ai documenti amministrativi, *NORMATTIVA*, <https://www.normattiva.it/uri-res/N2Ls?urn:nir:stato:legge:1990-08-07;241:vig>. For the bibliography, see, Vera Parisio, *The Italian Administrative Procedure Act and Public Authorities' Silence*, 36 *HAMLIN L. REV.* 1 (2013). For an analysis of the administrative procedure act, see Aldo Sandulli, *The Italian Administrative Procedure Act: Back to the Future*, *ITALIAN J. PUB. L.* (2010); see also Raffaele Bifulco, *The Constitutional Importance of Law 241/1990*, 2 *ITALIAN J. PUB. L.* 359 (2010).

³⁵ The social partnership in the Italian legal framework is disciplined by Article 190 of the Italian Code of Public Contracts. See Italian Public Contract Code, *AUTORITÀ NAZIONALE ANTICORRUZIONE* at 217, [www.anticorruzione.it/portal/rest/jcr/repository/collaboration/Digital%20Assets/anacdocs/MenuServizio/English%20section/ITALIAN_PUBLIC_CONTRACT_CODE%2015%20giugno%202018_sito%20\(2\).pdf](http://www.anticorruzione.it/portal/rest/jcr/repository/collaboration/Digital%20Assets/anacdocs/MenuServizio/English%20section/ITALIAN_PUBLIC_CONTRACT_CODE%2015%20giugno%202018_sito%20(2).pdf).

³⁶ Italian administrative law scholar Paolo Michiara sustained the position that it would be possible to frame the pacts using the several legal provisions disciplining the not-for-profit sector existing in the normative framework. Paolo Michiara, *I patti di collaborazione e il regolamento per la cura e la rigenerazione dei beni comuni urbani. L'esperienza del Comune di Bologna*, *AEDON*, May–Aug. 2016, at 14.

³⁷ Christian Iaione, *The Co-City Journal n. 2, URB. INNOVATIVE ACTIONS PROJECT*, www.uia-initiative.eu/en/uia-cities/turin (last visited Feb. 15, 2021).

though: it consists of enabling the collective action and active citizenship of city inhabitants as a new way to govern urban assets, services, and infrastructure³⁸. The construction of non-authoritative (horizontal, collaborative, cooperative) relationships between the government and city inhabitants requires changes in the action of both public and social actors, as well as the private sector. The public administration must turn itself into a platform³⁹, acting as a facilitator that is willing to put in place the connection between different actors and resources. The civic actors – in Turin’s case, the “urban commoners” – are required to adopt a more political and entrepreneurial approach. This would imply that they are ready to manage a certain level of risk and invest time, thus behaving according to a model inspired by the idea of the “civic entrepreneur”. In fact, the first solution would not be consistent with the idea of a city administration’s activity as non-authoritative, as the regulation itself also declares that the collaboration between citizens and the public administration is realized through the adoption of administrative acts of a non-authoritative nature. An option could be to adopt a double framework, in which the sharing of governmental powers through public policy co-design precedes the formation of a public-public partnership⁴⁰ pursuant to the administrative procedure law or pursuant to the public contracts/procurement legislation and in general the EU legislation on the forms of cooperation between public authorities. Actually, city inhabitants sharing the right to co-decide policy and perform some public administrative work places those in a position that is substantially equal to that of traditional governmental administrative units. This would be the only approach that would truly recognize local communities as sovereign, social semi- public authorities (the so-called State-Community) co-governing the city with the State apparatus. The phenomena tackled by the Turin Co-City project, that of collective action for urban commons, is not only a prerogative of the city of Turin or other Italian cities, but it is happening in many cities in the EU and globally. One of the main contributions of the Co-City project could be precisely

³⁸ Christian Iaione, *The Tragedy of Urban Roads: Saving Cities from Choking, Calling on Citizens to Combat Climate Change*, 37 *FORDHAM URB. L.J.* 889 (2010); CHRISTIAN IAIONE, *CITY AS A COMMONS* (2012); Foster & Iaione, *supra* note 21; Christian Iaione & Elena De Nictolis, *Urban Pooling*, 44 *FORDHAM URB. L.J.* 665 (2017); Sheila Foster & Christian Iaione, *Ostrom in the city. Design Principles and Practices for the Urban Commons*, in *ROUTLEDGE HANDBOOK OF THE STUDY OF THE COMMONS* (2019).

³⁹ As opposed to government techniques, governance strategies are characterized by equality, horizontality, and openness towards territorial communities, civil society, and the private sector, and are based on collaborations among various actors (institutional, social, knowledge, and entrepreneurial) to create partnerships dedicated to the shared realization of aims

of general interest. The strategy to which the partnership instrument responds is precisely that of abandoning the logic of the opposition between public and private interest, and between state interests and local interests, to create a network of alliances around public choice; in a word, to apply the principles and governance techniques on the issue of the urban commons addressing urban inequality. MARIA ROSARIA FERRARESE, *LA GOVERNANCE TRAPOLITICA E DIRITTO* 49 (2010). See also Christian Iaione, *La localizzazione delle infrastrutture localmente indesiderate: da soluzioni di government a soluzioni di governance*, *PER GOVERNARE INSIEME: IL FEDERALISMO COME METODO* 203 (2011); Christian Iaione, *La collaborazione civica per l'amministrazione, la governance e l'economia dei beni comuni*, *L'ETÀ DELLA CONDIVISIONE* 78 (2015)

⁴⁰ In a series of scholarly articles, one of the authors of this paper argued for the need to create public-civic or public-community partnerships as a policy and legal tool to ground cooperation between public administrators and social innovators through co-design processes to realize projects of general interest. See Christian Iaione, *Città e beni comuni*, in *L'ITALIA DEI BENI COMUNI* 127 (2012); Christian Iaione, *La città come un bene comune*, *AEDON* 2013, at 31; Christian Iaione, *Governing the Urban Commons*, 7 *ITALIAN J. PUB. L.* 170, 190 (2015); See also Maria Vit Ferroni, *Le forme di collaborazione per la rigenerazione di beni e spazi urbani*, *NOMOS* 2017, at 9.

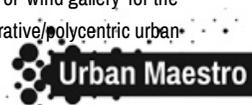
that of building a network of cities that are facing the same challenges through similar policy tools, thus promoting mutual exchange.

This section highlights that, through an empirical and normative observation of urban public policies in cities, we observe a dramatic increase in policy paths and tools to enable legal and administrative innovation for co-governance of urban resources and infrastructures. The above-described project represents the application of the Co-City methodological protocol to the City of Turin. The protocol is the necessary step to create the most favorable environment for innovation through urban commoning, by adopting the design principles of sharing, collaboration, and polycentrism. The key is to transform the entire city, or some parts of it, into a laboratory⁴¹ by creating the proper legal and political ecosystem for the installation of shared, collaborative, polycentric urban governance schemes⁴². The protocol was developed by LabGov within the framework of the Co-Cities project⁴³. The project is designed to test, evaluate, and refine the Co-City methodology through a scientific, multi-year project focused on collecting data on innovative public policies and local projects concerned with shared urban resources from over than 100 cities around the world; it investigates those new forms of collaborative city-making that are leading urban areas towards new forms of participatory urban governance, inclusive economic growth and social innovation. It is rooted on the conceptual pillars of the urban commons, and it comprehends a protocol, a methodology and five design principles that are in the process of being tested in selected European and American cities⁴⁴.

The Collaboration Pacts produced in Turin were analyzed (and their impacts evaluated) through the theoretical lenses of the Co-Cities project (Expert Analysis for the UIA Urban Innovative Actions Initiative⁴⁵). The Turin Co-City project is a unique policy experiment for regulating urban regeneration through collaborative processes because it faces the challenges posed by this policy area from the public procurement standpoint. The path chosen by other cities deals with the issue by granting civic use, or the exclusive concession of use, of city-owned buildings, or turning city administration into a platform enabling collective action for the urban

⁴¹ The idea is that the urban level is the best testing ground for democratic experimentalism. Democratic experimentalism, and the kind of innovations we propose, help to overcome political apathy, reduce the lack of legitimacy, increase political satisfaction and lead to more effective policies. See, e.g., Brigitte Geissel, *Improving the Quality of Democracy at the Local Level: German Experiences* (May 23-24, 2008), http://www.provincia.tn.it/binary/pat/link_home/geissel_Trento_08_final.1211796325.pdf (presented at "Quality of Democracy, Participation and Governance: The Local Perspective" conference at Trento, Italy).

⁴² The protocol works as a sort of 'wind gallery' for the experimentation of the collaborative/polycentric urban



governance scheme. The idea of the 'wind gallery' is inspired by the 'wind tunnel,' the innovative solution introduced by the Wright brothers that allowed them to successfully perform the first controlled flight at the beginning of the twentieth century. See 1901 Wind Tunnel, NAT'L AERONAUTICS & SPACE ADMIN., <http://wright.nasa.gov/airplane/tunnel.html> (last visited June 4, 2016).

⁴³ LabGov released an Open Book, the Co-Cities Report that is available at the following link [HYPERLINK "http://labgov.city/co-city-protocol/the-co-cities-open-book/"](http://labgov.city/co-city-protocol/the-co-cities-open-book/)

⁴⁴ The project is a joint effort of Rome-based LabGov (Luiss University) and Washington DC-based LabGov (LabGov Georgetown at the Georgetown University). See <http://labgov.city/> and https://labgov.georgetown.edu/co-cities_project/

⁴⁵ available at <https://www.uia-initiative.eu/en/uia-cities/turin>

commons by aggregating civic and private resources in the city toward the goal of regenerating and co-managing urban public spaces and buildings.

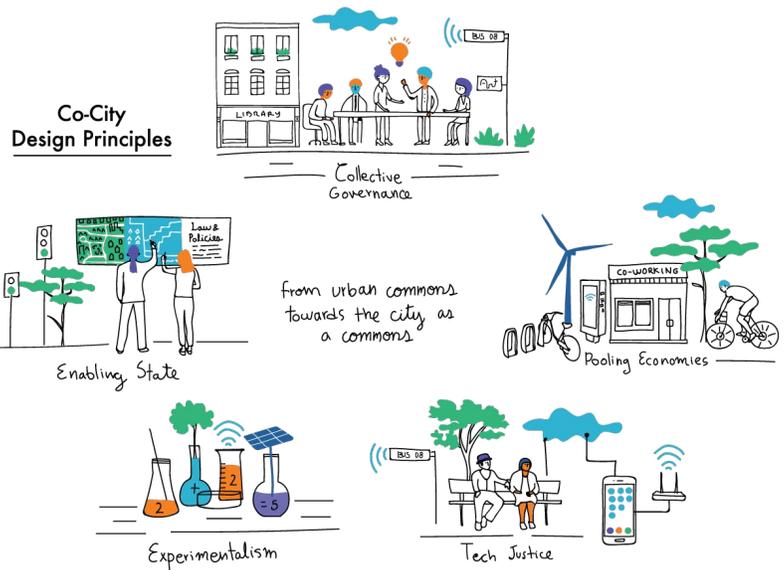


FIGURE 2: The Institutional Design Principles of the Co-Cities project. Credits: LabGov website <http://labgov.city/>

2.2. Naples (Campania, Italy):

Civic uses to regulate public-community governance of city-owned buildings and the URBACT Civic eState transfer network

The experience of Naples regarding urban civic uses is also of key relevance. Naples enabled autonomous civic actions to regenerate city-owned buildings and turn them into platforms for cultural and creative expression, self-organized and self-managed by NGOs and informal groups of citizens.

As anticipated, many experiments in this direction are taking place through innovative urban laws promoted in Italy, as well as other European cities. In some cases, the exemplary case studies of urban co-governance trigger a process of policy learning and mobility⁴⁶, supported by EU programs specifically designed for this, such as the URBACT program.

⁴⁶ Claire Dunlop, Policy Learning and Policy Failure: Definitions, Dimensions and Intersections, 45 POL'Y & POL. 1, 3–18 (2017).

The URBACT transfer network “Civic eState” is made up of Naples, with its urban civic uses policy; Barcelona, which is investing huge efforts in enforcement of the right to housing, autonomous local energy production, and commons-based governance of urban assets and infrastructures⁴⁷; Ghent, which promotes an overall plan to implement urban commons in the city, a “Commons Transition plan”; Amsterdam, which is devoting effort to implement a collaborative digital economy; Gdansk, which is willing to create a co-governance model for a city-owned building, a former college, based on a partnership among the city, NGOs, and city residents to co-create neighborhood services; Presov and Iasi, which need to improve the city residents’ awareness and the institutional capacity⁴⁸ of the cities regarding co-governance⁴⁹. The goal of the network is to extract the legal design principles of urban co-governance from the best practice of Naples’ civic use, provide the adaptation necessary to transfer them into different urban contexts and different policy domains, and develop a sustainability mechanism that sees an important role of finance and thus build an experimental civic heritage policy.

These projects teach that horizontal relationships between city administration and inhabitants require change in the actions of the actors involved⁵⁰. The switch toward a “platform state” and a form of civic entrepreneurship allows for the creation of innovative governance schemes that consist of “enabling the collective action and active citizenship of city inhabitants as a new way to govern, not just manage urban assets, services, infrastructure”⁵¹. It is therefore important to understand the connections that exist among different urban actors and analyze the role that new institutional mechanisms have in bringing them together to foster innovation. Among the instruments forged by the Civic eState Network, we can mention the Open Call for proposals that was replicated by the City of Ghent, Gdansk, and the City of Presov. In Presov, this call was the first creative design competition for the general public, aiming to re-imagine the “City Oasis”, a green area near the city center left to abandon.

⁴⁷ Ugo Mattei & Alessandra Quarta, Right to the City or Urban Commoning: Thoughts on the Generative Transformation of Property Law, 1 ITALIAN L.J. 303, 326 (2015).

⁴⁸ Xun Wu, et al., Policy Capacity: A Conceptual Framework for Understanding Policy Competences and Capabilities, 34 POL’Y & SOC’Y 165 (2015)

⁴⁹ Christian Iaione, Pooling Urban Commons: The Civic eState, URBACT (July 16 2019), <https://urbact.eu/urban-commons-civic-estate>.

⁵⁰ Iaione, supra note 38.

⁵¹ Christian Iaione, The Platform State, in CO-CITIES OPEN BOOK (2018). Christian Iaione, The Platform State, in Co-Cities Open Book, <http://commoning.city/the-co-cities-open-book/> (last visited Feb. 14, 2021).

2.3. Reggio Emilia (Emilia Romagna, Italy):

A policy framework enabling Urban labs, Collaboratories, and a City Science Office acting an innovation procurement broker empowering co-governance of urban infrastructures. The example of the Coviolo Community wi-fi.

The city of Reggio Emilia put in place a policy strategy aimed at developing an inclusive, collaborative, creative city by relying on the enabling features of digital tools and infrastructures, coupled with urban renewal processes, cultural heritage preservation, and improvement of urban services. This approach is based on the promotion of co-creation and, ultimately, social-digital innovation. The city has put in place a wide variety of urban experimentations, both in the historical center and in the outskirts. Through the renovation of historical building complexes such as the “Chiostrì di San Pietro” (Saint Peter Cloister), the local community has co-designed an open laboratory that will serve as a social innovation hub, a center for dialogue and creation, where technological culture and open access to digital tools will facilitate knowledge production, sharing, and innovation. The project was carried out within an urban policy framework composed by policies such as the Regulation for Citizenship Agreements and the Reggio Emilia Collaboratory⁵², aimed at promoting civic collaboration and public-community partnerships for the co-governance of urban resources, services, and infrastructures.

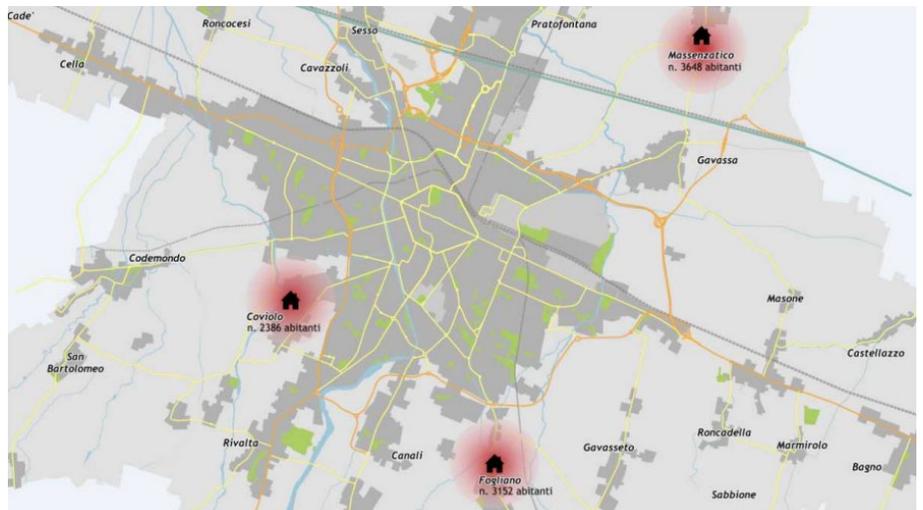


FIGURE 3: Social centers in the City of Reggio Emilia act as wireless connection' brokers and providers. Credits: Istitutional website of the City of Reggio Emilia
<https://www.comune.re.it/retecivica/urp/retecivi.nsf/PESDocumentID/D8CF7E0E9FFE9A32C12580060030E13D?opendocument>

⁵² The Reggio Emilia Collaboratory is a process promoted by the municipality of Reggio Emilia in collaboration with the University of Modena and Reggio Emilia and with the

scientific, strategic, and organizational support of LabGov. city and the social enterprise Kilowatt. Collaboratorio Reggio, COLLABORATORE REGGIO, <https://co-reggioemilia.commoning.city/> (last visited Feb. 14, 2021).

Similarly, the Coviolo Wireless Initiative⁵³, winner of the 2017 European Broadband Awards, has successfully developed Wi-Fi infrastructure in complex neighborhoods, extending Internet access to city inhabitants in underserved areas and providing social and economic development opportunities by turning the neighborhood community centers into hotspots and managers of the digital infrastructure.

These projects epitomize how a city's policies work toward the development of a technologically just city. Investing in access, participation, co-management, and/or co-ownership of technological and digital urban infrastructure and data, Reggio Emilia seeks to affirm the key role that digital tools play as drivers of cooperation and co-creation of urban commons⁵⁴.

Continuing in this direction, Reggio Emilia designed the ambitious plan of setting up a city-wide collaborative project to be managed by an Urban Science Office, that will act at the same time as a CSO, an innovation broker, and an innovation procurement broker. Its goal will be to involve quintuple helix actors – actors belonging to different categories (public local authorities and agencies, businesses and local entrepreneurs, NGOs and social actors, city residents and informal groups of social innovators, and knowledge actors such as schools and universities), pooling their resources and cooperating to carry out projects to improve the cities' services and infrastructures – to generate new neighborhood-based digital and social innovation solutions enabling free and fair access to management and co-ownership of social, economic, data, and digital infrastructures⁵⁵. The proposed solution is centered on the evolution of the local communities into active protagonists of the social-digital transition process at the neighborhood level. The bottom-up drivers of this transition will be the Neighbourhood Social Centres (NSCs), social and public facilities managed by NGOs that would operate at the neighborhood scale, thus building social hubs for digital transition and innovation (SDI)⁵⁶. The main expected result is the creation of an innovative network of SDIs that act as decentralized nodes, able to facilitate through specialized knowledge, training processes, continuous learning,

⁵³ Good Broadband Practice: Coviolo Wireless, Italy, EUR. COMM'N (Mar. 5, 2018), <https://ec.europa.eu/digital-single-market/en/news/good-broadband-practice-coviolo-wireless-italy>. See also Progetto Coviolo Wireless, COMUNE DI REGGIO EMILIA (Apr. 8, 2016), www.comune.re.it/retecivica/urp/retecivi.nsf/PESDocumentID/D8CF7E0E9FFE9A32C12580060030E13D?opendocument.

⁵⁴ Christian Iaione, et al., LAW AND ETHICS OF HUMAN RIGHTS).

⁵⁵ Elias Carayannis & David Campbell, Triple Helix, Quadruple Helix and Quintuple Helix and How do Knowledge, Innovation

and the Environment Relate to Each Other? A Proposed Framework for a Trans-disciplinary Analysis of Sustainable Development and Social Ecology, INTERNATIONAL JOURNAL OF SOCIAL ECOLOGY AND SUSTAINABLE DEVELOPMENT 1(1), 41–69 (2010); Thorsten Barth, The Idea of a Green new Deal in a Quintuple Helix Model of Knowledge, Know-how and Innovation, INTERNATIONAL JOURNAL OF SOCIAL ECOLOGY AND SUSTAINABLE DEVELOPMENT 1(2), 1–14 (2011); Julia Lane, Big Data for Public Policy: The Quadruple Helix, 35 JOURNAL OF POLICY ANALYSIS AND MANAGEMENT 3, 708–15 (2016).

⁵⁶ The neighborhood social centers are distributed across all neighborhoods in Reggio Emilia and are run by local NGOs and organize social and cultural activities and offer urban welfare services (wi-fi connection; care and management of green areas; community doorman). www.comune.re.it/retecivica/urp/retecivi.nsf/PESDocumentID/3DCDC814B444A3BAC1258488002BB62E?opendocument&FROM=Iprcss (last visited Jan. 25, 2021).

and constant supervision or valorization of the transition to the co-creation, co-management, or co-ownership of tech and digital services.

This threefold nature of the Reggio Emilia City Science Office is central, as it implies investing in collaborative dialogue processes matching digital and social innovators with the scientific world and innovation industry. A proper framework of legal tools, as well as an adequate level of economic resources, will derive from the adoption of innovation procurement strategies according to the EU directives on public procurement.

At present, the City of Reggio Emilia hosts a series of neighborhood Laboratories, together with the local actors of the Quintuple Helix, from which it will develop guidelines to allow the redesign of the regulation for citizenship agreement as a Climate Contract Law. Through this, the City of Reggio Emilia will equip its local communities and administration with concrete tools to achieve climate neutrality by enhancing proximity and social/solidarity economy within the City. The Administration is basing part of its policies on the needs that emerge from the different local labs and on the objectives set by the EU, in particular through the European Green Deal.



FIGURE 4: A functional division of the City of Reggio Emilia. Each cluster is co-designing solutions towards the climate neutrality of the city. Credits: Institutional website of the City of Reggio Emilia <https://www.comune.re.it/siamoqua>

2.4. Rome (Lazio, Italy):

Resource ecosystems and cultural heritage as a commons.

In the EU context, it is currently possible to observe the rise of radical democratic innovations at the political level. Social movements have started to propose a “rebel city” approach. In Rome, for instance, collectives have started a drafting exercise to produce a “Charter of Common Rome” identifying ten fundamental principles: 1) the inalienability of State-owned assets; 2) the introduction of the right to the “common use” of such assets; 3) the distinction between legality and legitimacy in order to filter cases that are grounded in urban informal, social and solidarity practices; 4) the direct reference to the constitutional principles that can protect this approach such as Articles 2, 4, 42, 43, 45 and 118 of the Italian Constitution; 5) the recognition that law can be produced by society; 6) the recognition of the right to autonomy as a right to self-organize and self-regulate but with the possibility to keep the door open to relations with others; 7) the need for a different bureaucratic approach towards experiences of self-management and solidarity that should be considered as social institutions; 8) the recognition of the urban commons (social spaces, virtuous associations, cultural centers, industrial reconverted assets and new forms of cooperative work) through a specific regulatory tool; 9) the recognition of the urban commons as functional to fundamental rights according to the findings of the Rodotà commission; 10) the recognition of the right to co-manage the urban commons and participate in decision-making processes related to them. As we have seen cities like Naples (or Barcelona) that declare themselves moving in the direction of dramatic change, in line with the right to the city tenets, this radical approach to the urban commons and the realization of the rebel city model has been transformed into a policy action.

The city of Rome is famous worldwide for its cultural heritage. By contrast, the social capital of the city is not so well known. Comparing Rome to the above analyzed cases is not easy, especially in terms of its size: single neighborhoods of the city are much bigger, in terms of numbers of inhabitants, than the whole city of Reggio Emilia, to give a measure of comparison. A great example of social capital and civic entrepreneurship comes from the most complex areas of the city. Three neighborhoods (Alessandrino, Centocelle, Torre Spaccata, from which the acronym ACT was derived) are experimenting with the management of local urban commons. Local civic energies were coalized towards the common goal of valorizing and preserving the cultural and natural commons constituted by the Archaeological Park of Centocelle. Through the application of the Co-City methodological protocol developed by Luiss LabGov⁵⁷ and the support to the R&I activities given by Italian

⁵⁷ See <http://labgov.city/> and <https://commoning.city/>

national agencies such as ENEA (the National Agency for New Technologies, Energy and Sustainable Economic Development, a public body aimed at research, technological innovation and the provision of advanced services to enterprises, public administration and citizens in the sectors of energy, the environment and sustainable economic development), or by the EU itself through the funding of the Open Heritage project (funded under the Horizon 2020 program), these actors were able to be recognized by the Council of Europe as a Faro Community⁵⁸. From this first step, they were able to broaden the scope of their activities, and have now created a Coop that provides neighborhood-based services and that is creating new local economies starting from the care of the urban commons. Another is represented by the NGO Agenda Tevere, which through the application of the Co-City protocol is now creating the first River Contract for the Tiber (the main River of Rome), an innovative governance scheme and model, and will further experiment thanks to the creation of a Participatory Foundation that is sponsored by the Regional government of the Region. In fact, through the Article 20 of the Regional Law n. 194 of 31 October 2019, the Lazio Region has decided to upscale the approach proposed by Agenda Tevere.

The experimentations were conducted through a methodological process centered on the implementation of the above-mentioned Co-city protocol, deeply grounded in the local context. This means that the standardization involved the process and the method, not the tools/instruments/output applied in the specific context. This represents a theoretical framework for the conceptualization of the pooling city, and suggests the main trajectories for the definition of the pooling city as a rights-based urban model/vision. A proposal to study/develop/adapt/test/measure should build on three main components: 1) the design principles to bring the Commons into the City and transform the City into a Commons, and their gradient; 2) the process to bring the Commons into the City and transform the City into a Commons. The local-experimental approach requires the necessity of a methodological tool that guides the action of local institutional actors for the development of an appropriate urban co-governance strategy; 3) the tools for pooling the city. The creation of a toolbox and/or a certifying voluntary standard-setting institution like those that work in the networked information economy (3GPP, Wifi Alliance, ETSI, WRC, IEEE, IETF and other standard setting bodies).

⁵⁸ The Faro Convention emphasizes the important aspects of heritage as they relate to human rights and democracy. It promotes a wider understanding of heritage and its relationship to communities and society. The Convention

encourages us to recognize that objects and places are not, in themselves, what is important about cultural heritage. They are important because of the meanings and uses that people attach to them and the values they represent.

3. CONCLUDING REMARKS

The previous paragraphs illustrate how forms of institutionally-enabled co-governance at the city level might result in the creation of multi-stakeholder partnerships to co-manage a building, provide a service or develop infrastructures for co-governance. While PPPs have by now become a common solution for public sector risk aversion and for its lack of resources, it is clear that sustainable innovation and smart city infrastructures require new types of partnerships, overcoming the public-private binary usually adopted to create partnerships, in order to experiment with and prototype tech-based or nature-based solutions for planning climate adaptation in cities⁵⁹. Especially when it comes to the inclusion of urban citizens and civic associations, innovative procurement practices hold the potential to experiment with new regulatory and governance solutions for the co-design, collaborative management, and implementation of urban regeneration projects, as well as service delivery. Finding the proper ways, methodologies, and rules to foster multi-actor cooperation such as public-private-community or public-private-people partnerships requires attention, competences, skills, time, and resources. Organization and process are essential. The literature on PPPs shows that the public sector lacks the skills, incentives, and resources to experiment and change its traditional system of service delivery through partnership with citizens and other civil society actors⁶⁰. Effective innovation requires risk-takers in public administrations who overcome barriers to change, curate new partnerships with different actors, develop new ideas for service delivery, and test innovative solutions coming from external actors. In many cases, especially at the city level, such public open innovation processes are supported by what we can generally call urban laboratories. “Collaboratories,” “Urban Innovation Labs,” or “Living Labs,” these environments generally act as intermediaries between public authorities, private actors, knowledge institutions, civic society actors, and citizens⁶¹. Innovation brokers therefore play an important role, not only because they produce knowledge and innovative solutions to local challenges. They often allow for the meeting and networking of multi-actors; they set up collaborative processes of design and implementation; they foster learning and skills development; and they provide the infrastructure necessary for the participation of civic society actors or citizens, through organization of meetings,

⁵⁹ Oliveira Cruz & Joaquim Miranda Sarmiento, Public-Private Partnerships and Smart Cities, 19 NETWORK INDUSTRIES Q. 3 (2017): “Regulatory Challenges for Smart Cities”; Ben P. Harman, et al., Urban Partnerships and Climate Adaptation: Challenges and Opportunities, SUSTAINABILITY GOVERNANCE AND TRANSFORMATION 12, 74–77 (2015).

⁶⁰ Shafiul Azam Ahmed & Syed Mansoor Ali, People as Partners: Facilitating People’s Participation in Public-Private Partnerships for Solid Waste Management, 30 HABITAT INT’L 781, 781–96 (2006).

⁶¹ Mila Gascó, Living Labs: Implementing Open Innovation in the Public Sector, 34 GOV’T INFO. Q. 90, 90–98 (2017).

assemblies, and workshops⁶². Collaboratories might be specifically valuable for smaller and medium-sized cities, or neighborhoods in large cities, and can complement ongoing city-wide or EU wide initiatives⁶³. When speaking of innovation in public procurement and social innovation, it is important to address the rise of new financing instruments aimed at investing in projects with a social impact: “Social Finance (SF) defines the set of alternative lending and investment approaches for financing projects and ventures, requiring to generate both positive impacts on society, the environment, or sustainable development, along with financial returns”⁶⁴. SF instruments are key tools for the development of the social innovation sector in general, and for urban co-governance projects in particular. Especially when it comes to addressing issues such as urban poverty, digital infrastructure, circular economy, renewable energy, and cultural heritage sectors, SF solutions might provide a partnership model that is able to have a real impact on local communities, bringing together local associations, citizens, and private and public actors. Finally, we can identify in these experiences a common pattern that is represented by the active role played by Universities and Research Centers as brokers of urban co-governance.

⁶² Shafiul Azam Ahmed & Syed Mansoor Ali, *People as Partners: Facilitating People's Participation in Public-Private Partnerships for Solid Waste Management*, 30 HABITAT INT'L 781, 781–96 (2006).

⁶³ *Urban Agenda for the EU: Pact of Amsterdam*, at 52, EUR. COMM'N (2016), https://ec.europa.eu/regional_policy/sources/policy/themes/urban-development/agenda/pact-of-amsterdam.pdf.

⁶⁴ Francesco Rizzi, et al., *The Structuring of Social Finance: Emerging Approaches for Supporting Environmentally and Socially Impactful Projects*, 170 J. CLEANER PRODUCTION 805, 805 (2018).

All rights reserved

United Nations Human Settlements Programme (UN-Habitat)

P.O. Box 30030 00100 Nairobi GPO KENYA

www.unhabitat.org

URBAN MAESTRO

This paper was drafted as an external contribution to the Coordination and Support Action “URBAN DESIGN GOVERNANCE - Exploring formal and informal means of improving spatial quality in cities across Europe and beyond”, also known as “Urban Maestro”. The Action was funded by European Union’s Horizon 2020 research and innovation programme under grant agreement No. 831704 and implemented from 2019 to 2021 by a consortium comprising the University College London, Brussels Bouwmeester Maître Architecte and UN-Habitat.

www.urbanmaestro.org

DISCLAIMER

The designations employed and the presentation of material in this publication do not imply the expression of any opinion whatsoever on the part of the secretariat of the United Nations concerning the legal status of any country, territory, city or area or its authorities, or concerning the delimitation of its frontiers or boundaries regarding its economic system or degree of development. Excerpts may be reproduced without authorization, on condition that the source is indicated. Views expressed in this publication do not necessarily reflect those of the United Nations Human Settlements Programme, the United Nations and its member states.

ACKNOWLEDGEMENTS

Principal authors: Alessandro Antonelli - Teaching Assistant Law and Policy of Innovation and Sustainability, Governance of Innovation and Sustainability, Department of Law; Assistant to the Chair of Urban Law and Policy, Department of Political Science; Smart Cities, Department of Law; Research fellow of LabGov.City

Elena De Nictolis - Post-doctoral Researcher; Department of Political Science; Research fellow of LabGov.City

Christian Iaione - Professor of Regulatory Innovation, Land Use, Urban Law & Policy; Director of the MSc in Law, Digital innovation and Sustainability; Co-Director of LabGov.City; Deputy Director of Luiss BILL

Design and layout: Kidnap Your Designer, Brussels Bouwmeester Maître Architecte (BMA)