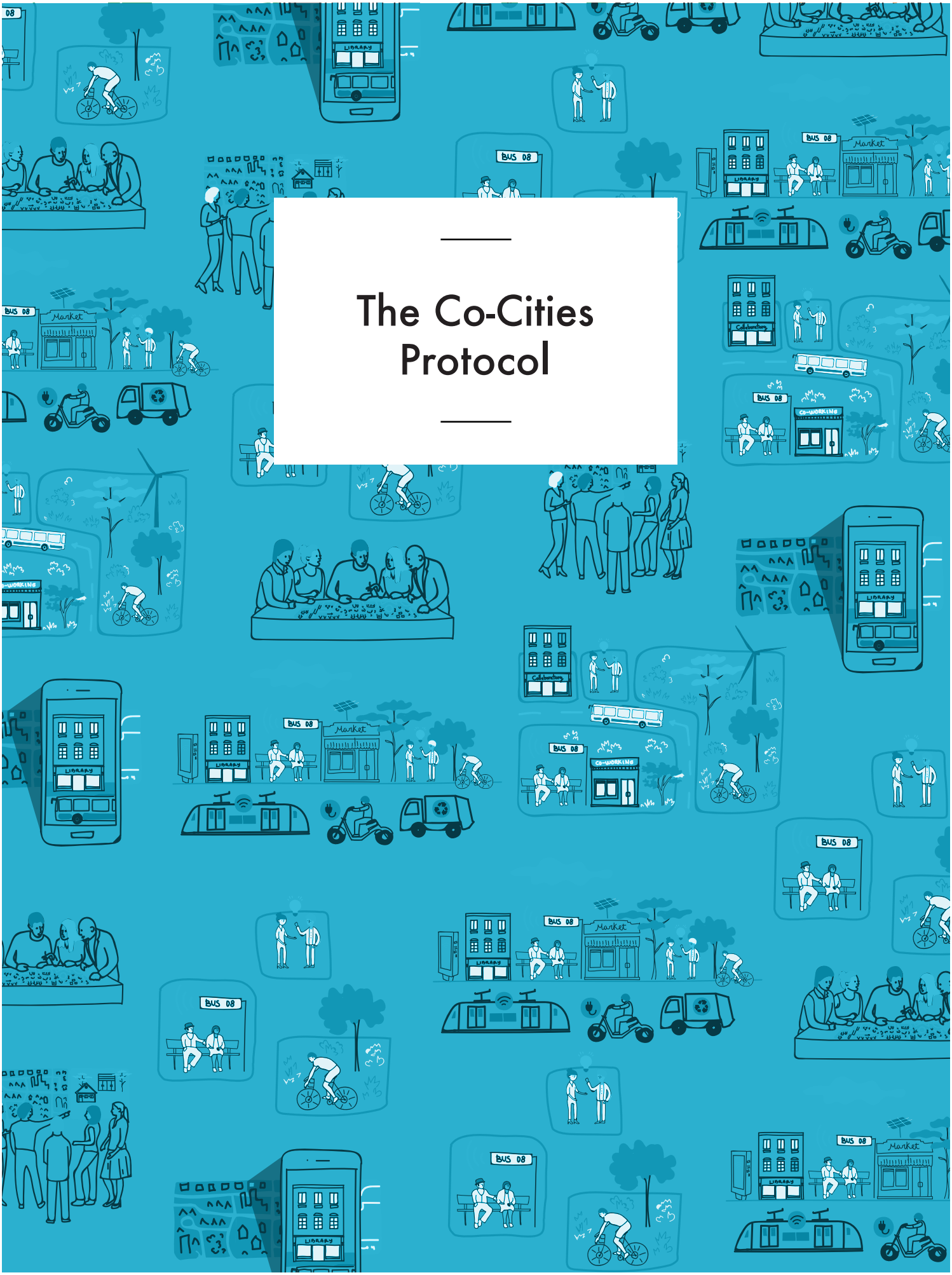


The Co-Cities Protocol

CO W CITIES 2+2=5

LAB GOV.City

LUISS

GEORGETOWN UNIVERSITY

Co-Cities Open Book

Transitioning from the Urban Commons to the City as a Commons[1]

The Co-Cities Project is the result of a 5-year project to investigate and experiment new forms of collaborative city-making that is pushing urban areas towards new frontiers of participatory urban governance, inclusive economic growth and social innovation. The case studies gathered here come from different kinds of cities located all around the world, and include groundbreaking experiments in Bologna (Italy), as well as in other Italian cities (e.g. Reggio Emilia, Rome, Milan, Turin etc.), and global cities such as Seoul (South Korea), San Francisco (California, USA), Barcelona (Spain), and Amsterdam (Netherlands). The project focuses on emerging urban innovations and evolutions which are reshaping urban (and peri-urban) development and land use, urban and local economic patterns, urban welfare systems and democratic and political processes, as well as governmental decision-making and organization. Among the better known recent examples are the FabCity transition plan towards re-localized and distributed manufacturing of Barcelona; the Bologna Regulation on Public-Civic Collaboration for the Urban Commons; the Turin Co-City policy; San Francisco, Seoul and Milan initiatives to transform themselves into "sharing cities"; and Edinburgh as a "cooperative city".

The Co-Cities project is rooted in the conceptual pillars of the urban commons[2]. The concept of the co-city situates the city as an infrastructure enabling sharing and collaboration, participatory decision-making and peer-to-peer production,

1 This report is the result of a wide collaborative effort. It benefited from close collaboration of Sheila Foster, Christian Iaione, Elena De Nictolis with the P2P Foundation; the Transformative Actions Interdisciplinary Laboratory (TrailLab) of the Catholic University of Milan, in particular Professor Ivana Pais and Michela Bolis; the International Association for the Study of the Commons (IASC). Michel Bauwens and Vasilis Niaros contributed to the data selection and collection during the exploratory phase (November 2015 through August 2016). An analysis on the findings from the first 30 relevant case studies provided by Michel Bauwens will be made available on the Co-Cities Open Book, forthcoming on www.commoning.city. Constant supervision and guidance for the theoretical framework and the methodological approach was provided by Sheila Foster and Leonardo Morlino.
For case studies in Latin America we have leaned heavily on direct suggestions from Thamy Pogrebinschi. We also relied upon the invaluable data and analysis collected by her and her research team on LATINNO, Innovations for democracy in Latin America. For case studies on sharing cities worlwide we relied upon the "Shareable Sharing Cities: Activating the Urban Commons" and we are thankful to Neal Gorenflo for his support. We are grateful to Aaron Maniam and the team of Oxford Urbanists for their feedbacks and comments that enriched our work. The contribution of LabGov research associates for building the database and carrying out the empirical analysis was indispensable: Chiara De Angelis coordinated the data production team and provided support as lead research associate (2016/2018) and Cosima Malandrino supported the data analysis and communication strategy of the report, first as a graduate intern and later as research associate. Crucial was the research carried out by Chrystie Swiney, Sumedha Jalote and Zezhou Cai that contributed with data entry, data collection and detailed case studies' analysis in US, India and China under the supervision of Sheila Foster at LabGov Georgetown. Lucia Paz Errandonea provided critical support in data entry and graphic visualization during their curricular internship with the LabGov project (spring/summer 2017); Monica Bernardi provided support with data collection in Seoul and Boston.
We would like to express our deep appreciation to Alessia Palladino, Chiara Prevete, Benedetta Gillio, Anna Berti Suman, Sofia Croso Mazzuco, Alessandro Antonelli for their contribution to the data entry and data collection tasks. The research and papers of graduate and undergradutate students of the course "Urban Law and Policy" in the Department of Political Science at LUISS University have been of help in a variety of ways. A special obligation goes to Gresia Bernardini Marino; Mattia Lupi; Paolo Marro; Serena Ragno; Giulia Balice; Federico Pieri; Elisa del Sordo; Martina Rotolo; Guglielmo Pilutti; Marina Gascòn; Marta Pietro Santi; Greta Bertolucci; Charlotte Poligone; Zita Kučerová. We would like to express our deep appreciation to Alessandra Pirera, Andrea Posada, Eduard Eldman and Danila D'Addazio, the team that designed the visual identity communication and dissemination strategy of the Co-Cities Open Book.
2 The theoretical background and literature of this project, and the conceptual pillars of the Co-city are based on the analytical framework developed in the following publications: Sheila Foster, The City as an Ecological Space: Social Capital and Urban Land Use, 82 NOTRE DAME L. REV. 527 (2006-2007); Sheila Foster, Collective action and the Urban Commons, 58 NOTRE DAME L. REV 57; Christian Iaione, Governing the Urban Commons, 1 IT. J. PUB. L. 170 (2015); Christian Iaione, The CO-city, 75 THE AMERICAN JOURNAL OF ECONOMICS AND SOCIOLOGY, 2 (2016); Sheila Foster & Christian Iaione, The City as a Commons, 34 YALE L. & POL'Y REV 81 (2016); Christian Iaione, The Law and Policy of Pooling in the city, FORDHAM URBAN LAW JOURNAL 34:2 (2016) and Sheila Foster & Christian Iaione, OSTROM IN THE CITY: DESIGN PRINCIPLES FOR THE URBAN COMMONS, The Nature of cities, https:/www.thenatureofcities.com/2017/08/20/ostrom-city-design-principles-urban-commons/. (20 August 2017).

supported by open data and guided by principles of distributive justice. A co-city is based on urban shared, collaborative, polycentric governance of a variety of urban resources such as environmental, cultural, knowledge and digital goods which are co-managed through contractual or institutionalized public-private-community partnerships. Collaborative, polycentric urban governance involves different forms of resource pooling and cooperation between five possible actors—social innovators (i.e. active citizens, city makers, digital collaboratives, urban regenerators, community gardeners, etc.), public authorities, businesses, civil society organizations, and knowledge institutions (i.e. schools, universities, cultural institutions, museums, academies, etc.). These partnerships give birth to local peer-to-peer experimental, physical, digital and institutional platforms with three main aims: fostering social innovation in urban welfare provision, spurring collaborative economies as a driver of local economic development, and promoting inclusive urban regeneration of blighted areas. Public authorities play an important enabling role in creating and sustaining the co-city. The ultimate goal is the creation of a more just and democratic city.

The Co-Cities Open Book aims to develop a common framework and understanding for "urban (commons) transitions." These transitions include: patterns, processes, practices, and public policies that are community-driven and that position local communities as key political, economic and institutional actors in the delivery of services, production, and management of urban assets or local resources. It seeks to extract from on the ground examples recurrent design principles and common methodological tools employed across the globe and for different urban resources and phenomena. The report is part of the Open book on Urban Commons brings together the contributions of several global thought leaders who have been developing and refining the ideas underlying the conceptual pillars of the Co-City. The book uses case studies to map where urban commons innovations are occurring, analyze the features of each individual case, and present the testimony of leaders or key participants in the case studies. One of the main goals in interviews with participants and leaders is to discern whether the projects captured here represent isolated projects or whether they represent a city that is experiencing a transition toward a Co-city. The ultimate objective of this book is to raise awareness about the commonalities among these case-studies and to serve as guidance for urban policy makers, researchers, urban communities interested in transitioning toward a Co-City.

Abstract 2

Introduction 5

I. The Co-Cities Protocol 6

1.1 The Design Principles: measuring the transition from the Urban Commons to the City as a Commons 6

The design principles 6

1.2 The Co-Cities process (or policy cycle) 9
1.3 The Tools 9
1.4 The experimental phase in Italian cities: the Co-Cities experimentations 11

1.4.1 The Co-Bologna program 11
1.4.2 Co-Mantova – culture as a commons 12
1.4.3 Co-Battipaglia – collaborative urbanism 12
1.4.4 Co-Reggio Emilia – a Collaboratory as an incubator for community-led economic development 12
1.4.5 Collaborative Tuscany – co-creating a public policy on the sharing economy 13
1.4.6 Co-Rome social partnership. Experimenting co-governance at the district level 14

Introduction

The Co-Cities Open Book brings together the work of years of theoretical/conceptual research and urban policy experimentations carried out within the Co-Cities program (www.commoning.city) in order to provide a comprehensive understanding of the challenges and solutions to the implementation of a rights-based approach to the governance of the City.

How did we get to the Co-City model and how can we apply this model to ensure that cities worldwide are inclusive, just and sustainable? Let us start with some definitions.

The concept of the Co-City situates the city as an infrastructure, enabling sharing and collaboration, participatory decision-making, and peer-to-peer production, supported by open data and guided by principles of distributive justice. A Co-city is based on urban shared, collaborative, polycentric governance of a variety of urban resources such as environmental, cultural, knowledge and digital goods, which are co-managed through contractual or institutionalized public-private-community partnerships.

Once we start conceiving the city as an infrastructure on which public, private, knowledge, civic and social sectors (what we define as a "quintuple helix") can collaborate and collectively govern urban resources, and not just as an agglomeration of disconnected and isolated urban commons, we start understanding the potential of implementing the Co-Cities model.

This open book has roots in our conceptualization of the 'City as a Commons,' the emerging academic field of urban commons studies, and the work developed in 5 years of remarkable urban experimentations in Italy and around the world. Structured around three main pillars, the Co-Cities open book will first provide scholars, practitioners and policy-makers with an overview of the theory and methodology of the Co-City and the "Co-Cities Protocol". The Co-Cities Protocol is composed of: a) the design principles of a Co-City b) the Co-City process or cycle c) the Co-City toolkit.

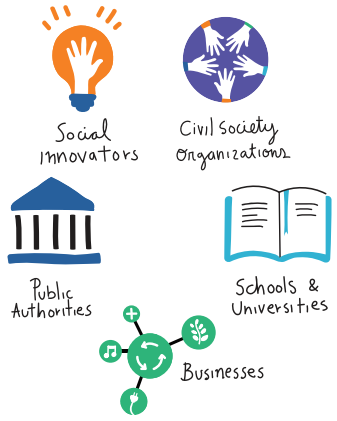
The open book also presents the "Co-Cities report", the results of an extensive research project in which we extracted from, and measured the existence of, Co-City design principles in a database of 400+ case studies in 130+ cities around the world. Ultimately, thanks to the Co-cities report we were able to create the first index able to measure how cities are implementing the right to the city through co-governance. Thus, the Co-Cities index serves as a fundamental tool for the international community in order to measure the implementation of some of the objectives that have been set by the New Urban Agenda.

The last part of the Open Book presents a collection, or annex, of articles of some of the most important researchers and practitioners studying the urban commons. These essays were conceived and offered as part of "The City as a Commons" conference, the first IASC (International Association for the Study of the Commons) conference on urban commons, co-chaired by Christian Iaione and Sheila Foster that took place in Bologna on November 6 and 7, 2015. The conference was a big step forward in understanding and promoting the breadth and depth of research on the urban commons and commons-based urban governance. The turnout of researchers and practitioners was unprecedented, including more than 200 participants. For this reason, we decided to dedicate the last section of this open book to the work presented in this occasion because the conference produced a body of knowledge that continues to guided research and policymaking on the commons in cities.

From a reconstruction of the history of the urban commons, to a legal account of urban commons theory and an institutional analysis of possible enablers of civic imagination and collaboration, experts like Tine De Moor, Sheila Foster, Michel Bauwens, David Bollier, Christian Iaione, and Paola Cannavò present us with the current debates and provide us with an intellectual framework from which to apprehend the complexity of the Co-Cities model.

1. The Co-Cities Protocol

Based on the experiment in Bologna and other experiments conducted in Italian cities, an initial protocol of the Co-City[3] was developed, to be further developed and improved through application to other urban contexts (geographic and otherwise). This protocol also helps to make visible the conditions necessary to transition a city from the presence of particular, perhaps isolated, urban commons institutions to the operation of the city as a commons[4]. This protocol is constituted of three elements: the principles, the processes, and the tools. The protocol is designed to create the most favorable environment for innovation through urban commoning, by adopting the conceptual pillars of the urban commons: sharing, collaboration, and polycentrism. The key is to transform the entire city or some parts of it into a laboratory by creating the proper legal and political ecosystem for the installation of shared, collaborative, polycentric urban governance schemes. The protocol is composed of three elements: the design principles; the cycle; the tools. Those elements will be introduced and briefly described in the following paragraphs.



3 Veronica Olivotto, The beginning of the first Co-City: CO-Bologna, in Critical Turning Points-database, Transformative social innovation theory,http:/www.transitsocialinnovation.eu/sii/ctp/ctp4-the-beginning-of-the-first-co-city-co-bologna. (4 April 2016).
4 The theoretical background of the protocol is based on the research efforts on methodological approaches on the commons combined with research efforts on methodological approaches to analyze and design policies or governance experiments around urban assets, infrastructures and services in cities. See generally Amy Poteete, Marco Jannsen, & Elinor Ostrom Working together: collective action, the commons, and multiple methods in practice. (2010). See also Amy Poteete & Elinor Ostrom, In pursuit of comparable concepts and data about collective action, Agricultural Systems 82 (2004), at 215–232. For an overview on the adapted application of methods developed by the Chicago School of Urban Sociology to contemporary urban research, see May T., Perry B., Patrick Le Galès, Saskia Sassen S. & M. Savage. The Future of Urban Sociology. Sociology. 39 (2005) at 343. See also Wu C. Moving from Urban Sociology to the Sociology of the City The American Sociologist, 47, 1 (2016) at 102–114.

1.1 The Design Principles: measuring the transition from the Urban Commons to the City as a Commons.

The design principles

The design principles are the process dimensions which are able to demonstrate the transition from urban commons projects to the city as a commons. They were extracted from the Co-Bologna experience and from field experimentations in other Italian cities, as previously described. Based on the experience applying the Protocol 1.0 in the Italian context, and the observation of its elements at work in other cities in Europe and elsewhere, we have extracted a very preliminary set of basic design principles, or dimensions, that we believe characterize a "Co-City." They are the following: Collective Governance, the Enabling State, Social and Economic Pooling, Experimentalism, and Technological justice.

A. Co-governance

Co-governance refers to the presence or absence of a self-, shared, collaborative or polycentric organization for the governance of the commons in cities. Scholars refer to co-governance by various names or references. These include collective governance5, shared governance, collaborative governance6 and polycentrism7. Sheila Foster and Christian Iaione have applied these concepts in their work on the city as a commons to demonstrate its application to the urban commons8. As argued already by Christian Iaione, one way to imagine and to

5 Elinor Ostrom, Governing the commons (1990).
6 J. Freeman, Collaborative Governance in the Administrative State, UCLA Law Review 45(1): 1-98, 1997; Chris Ansell & Allison Gash, Collaborative Governance in Theory and Practice, Journal of Public Administration Research and Theory 18(4): 543-571, (2008); see also Lisa B. Bingham, Collaborative Governance: Emerging Practices and the Incomplete Legal Framework for Public and Stakeholder Voice, Journal of Dispute Resolution (2): 269-325, (2009) and Lisa B. Bingham, The next generation of administrative law: building the legal infrastructure for collaborative governance, Wisconsin Law Review, 297, (2010). Jan Kooiman, Governing as governance, SAGE, London (2003).
7 The application of the concept of polycentrism to the urban governance is been first proposed by Vincent Ostrom, Charles Tiebout & Robert Warren, The Organization of Government in Metropolitan Areas, in American Political Science Review 55(4): 831-842, 1961 and later applied to the governance of the shared resources by Elinor Ostrom, Beyond Markets and States: Polycentric Governance of Complex Economic System, American Economic Review 100(3): 641-672, (2010)
8 As argued in S. Foster e C. Iaione, supra note 2.

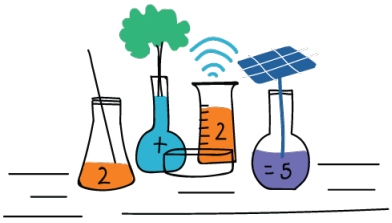
measure the presence of co-governance of a commons is to detect the presence of a quintuple helix system9 of urban innovation. This implies the involvement in urban governance of five actors: 1) active citizens, commoners social innovators, city makers, local communities; 2) public authorities; 3) private actors (national or local businesses; small and medium enterprises; social business) 4) civil society organizations and NGOs; 5) knowledge institutions.

B. Enabling State

Enabling State is the design principle that expresses the role of the public authority or the State[10] in the governance of the commons and identifies the characteristics of an enabling state that facilitates[11] collective actions for the commons. As highlighted by Sheila Foster in her first study on the urban commons, the presence of the State acting as an enabling platform for collective actions might represent a key factor for the success of community projects on the urban commons[12].

C. Social and Economic Pooling

Social and Economic Pooling is the dimension that helps understand the distinction between an urban governance scheme based on co-governance, where different neighborhood actors (i.e. public, private, knowledge, social, civic) share, co-manage, regenerate the urban commons, and an urban governance scheme based on urban pools, where the aforementioned actors coalesce to transform the neighborhoods into social and economic enabling platforms thereby creating self-standing collective institutions based on sustainable, social and solidarity, collaborative, cooperative and circular economic ventures.



D. Experimentalism

Approaches focused on the study of the city as a socio-ecological system have highlighted how the scientific approach to the commons inevitably results applied, experimental and local[13] and suggest the realization of multiple governance experiments that allow the observation of processes and direct work with the subject involved.

E. Tech justice

Finally, Tech Justice[14] highlights the potential of digital infrastructures and access to technology to facilitate collaboration, local development and social cohesion. As observed by Olivier Sylvain,[15] an open digital infrastructure might generate a virtuous cycle: openness generates innovation, that attracts interest from the users and other actors, and this will lead to more investments in technological urban infrastructures bringing benefits to vulnerable groups.

9 The model of the quintuple helix system of urban governance is available in Christian Iaione, The Co-city, The American Journal of Economics and Sociology (2016). See generally M. Ranga, H. Etzkowitz, Triple Helix systems: an analytical framework for innovation policy and practice in the Knowledge Society, 27 Industry & Higher Education 3 (2013), at 242. See also E. G. Carayannis, D.F.J. Campbell, Mode 3'and'Quadruple Helix': toward a 21st century fractal innovation ecosystem, International Journal of Technology Management, 46(3), at 201–234. See also V. E.G. Carayannis, T.D. Barth, D. Campbell, The Quintuple Helix innovation model: global warming as a challenge and driver for innovation, 1 Journal of Innovation and Entrepreneurship, 2 (2012).

10 Quentin R. Grafton, Governance of the commons: a new role for the state? In Land Economics, 504–517, (2001).

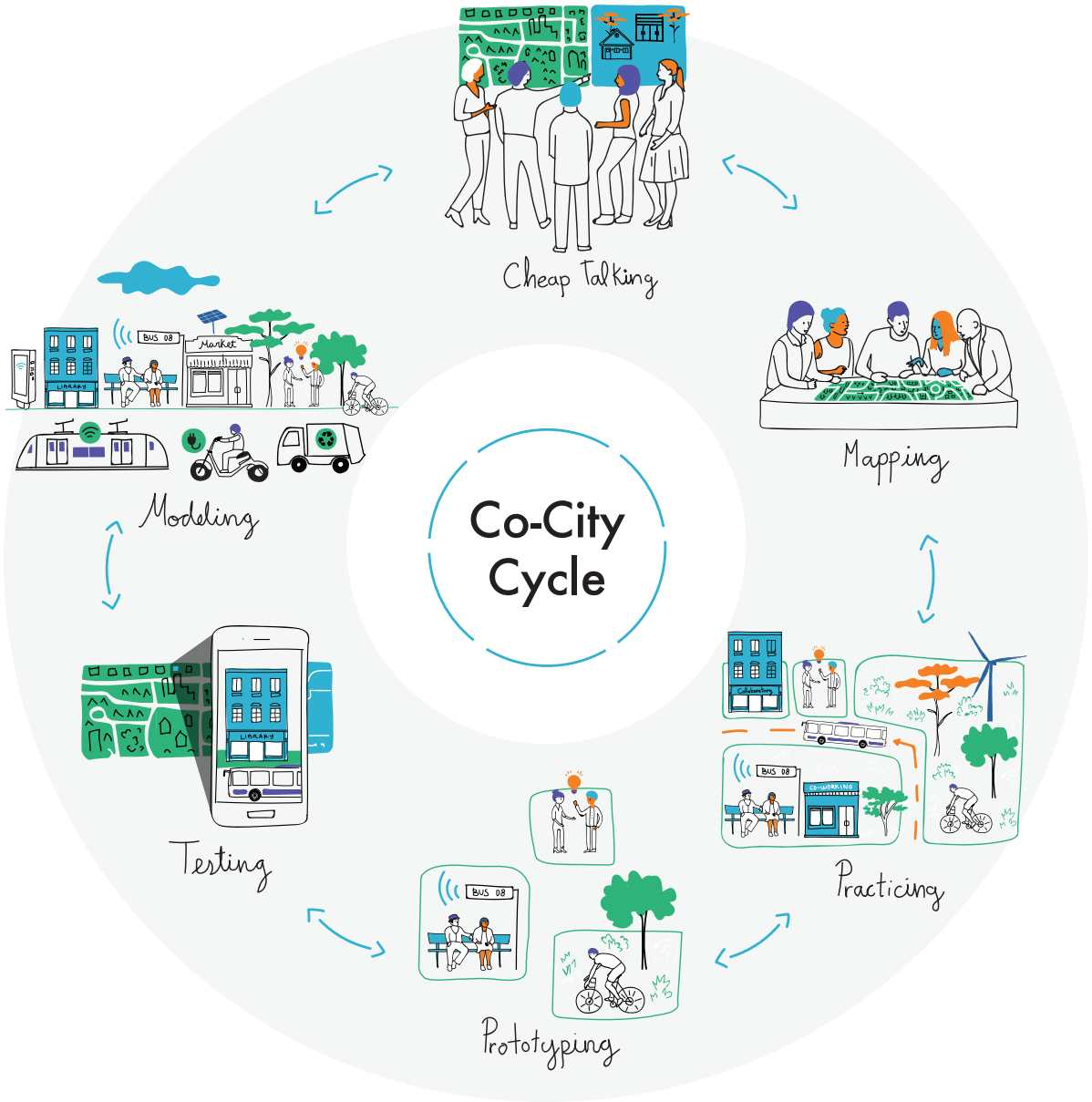
11 Christian Iaione, The platform state, in the Open Book on Urban (Commons) transitions (forthcoming on www.commoning.city).

12 Sheila Foster, Collective action and the Urban Commons, 58 Notre Dame L. Rev 57 (2011)

13 James evans, Resilience, ecology and adaptation in the experimental city, Transactions of the Institute of British Geographers, 230 (2011).

14 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. Under review for The Law & Ethics of Human Rights.

15 Olivier Sylvain, Network Equality, Hastings Law Journal 67:(443) (2016).


Co-City Cycle
Cheap Talking
Mapping
Practicing
Prototyping
Testing
Modeling
BUS 08
Market
Library
Co-working

1.2 **The Co-Cities process (or policy cycle)**

The Co-Cities process (or policy cycle) in its current version, is composed of six phases: cheap talking, mapping, practicing, prototyping, testing and modeling. The first phase of the protocol is the cheap talking phase. Cheap talking first emerged in game theory[16] and was adopted in the research on common pool resources[17]. It consist in organizing informal settings to allow for discussion on the identification of urban commons, existing or potential, in a certain neighborhood or city district. It is aimed at fostering the identification of potential urban commons and the fostering of an active community through dialogues with key interlocutors in the city (scholars, experts, practitioners). The act of listening and acquiring knowledge from local actors is key in this phase.

The secoch is the mapping phase which develops simultaneously in two directions: analog (or offline) and digital (online or e-mapping) . The main tools of this phase include fieldwork activities in the relevant area from which information gleaned in the cheap talking phase is employed to begin to map potential urban commons. This phase might also include the use of tools developed in previous applied and experimental research on the urban commons, such as ethnographic work, as well as active field observation and exploratory interviews or surveys. It can also include the creation of a collaborative digital platform as a tool for disseminating information and engaging the community. The mapping phase provides a visualization of urban commons through relevant civic initiatives and self-organization experiences. The aim of the mapping phase is also in part to understand the characteristics of the specific urban context in order to design and prototype appropriate governance tools later on in the process.

The third phase, the practicing phase, is experimental in nature. At the heart of this phase is a "collaboration camp" where synergies are created between emerging commons projects and local authorities. Collaborative actors are identified from various sectors — city residents, social innovators, knowledge based institutions, nonprofit organizations, small and medium local enterprises or CSR programs, other public authorities, etc. — who are willing to participate in co-working sessions organized to identify possible synergies and alignment between projects and relevant actors. These might culminate in a "collaboration day," which could take the form of placemaking events—e.g., an urban commons civic maintenance festival, temporary utilization of abandoned building or spaces, micro-regeneration interventions, the creation of community gardens, the cleaning, reopening and temporary use of abandoned spaces, micro-regeneration projects, or organization of cultural events. —to test, experiment and coordinate the ideas that arise out of the co-working sessions.

The fourth phase, the prototyping phase, focuses on governance innovation. In this phase, participants and policymakers reflect on the mapping and practicing phases to extract the specific characteristics and needs of the community served. Only then can participants undertake the co-design and / or implementation of governance or policy. The goal is to verify the conditions that promote the establishment of trust links within the community and with external actors. Finally, the hypothesis provided for the realization of co-design pathways, with the support of external expert professionals, to follow and accompany the self-organization processes for the construction of governance schemes for urban commons.

The penultimate phase is the testing phase. In this phase, the governance/policy prototype is tested through implementation. Implementation is monitored and objectively evaluated[18]. The evaluation has both qualitative and quantitative metrics to assess whether implementation of the policy is consistent with the design principles and objectives identified throughout the process by the different participants. Of course, evaluation methods cannot be copied and pasted uncritically. It is important to adopt the evaluation methods and techniques to the local conditions and the peculiarities of policy tools for urban co-governance.

Finally, the modeling phase, where the governance output prototyped and evaluated in light of the first implementation adapted to the legal and institutional framework of the city in order to ensure the balance with the institutional and legal urban ecosystem. This phase is realized through the study of urban norms and relevant regulations and administrative acts and through dialogue with civil servants and policy makers. This is very experimental phase involving perhaps the suspension of previous regulatory rules, the altering of bureaucratic processes, and the drafting of new policies which might also have a sunset clause and then re-evaluation period. It can also involve the establishment of external or internal offices or support infrastructure in the city to support the policies and the "commoning" across the city.

1.3 **The Tools**

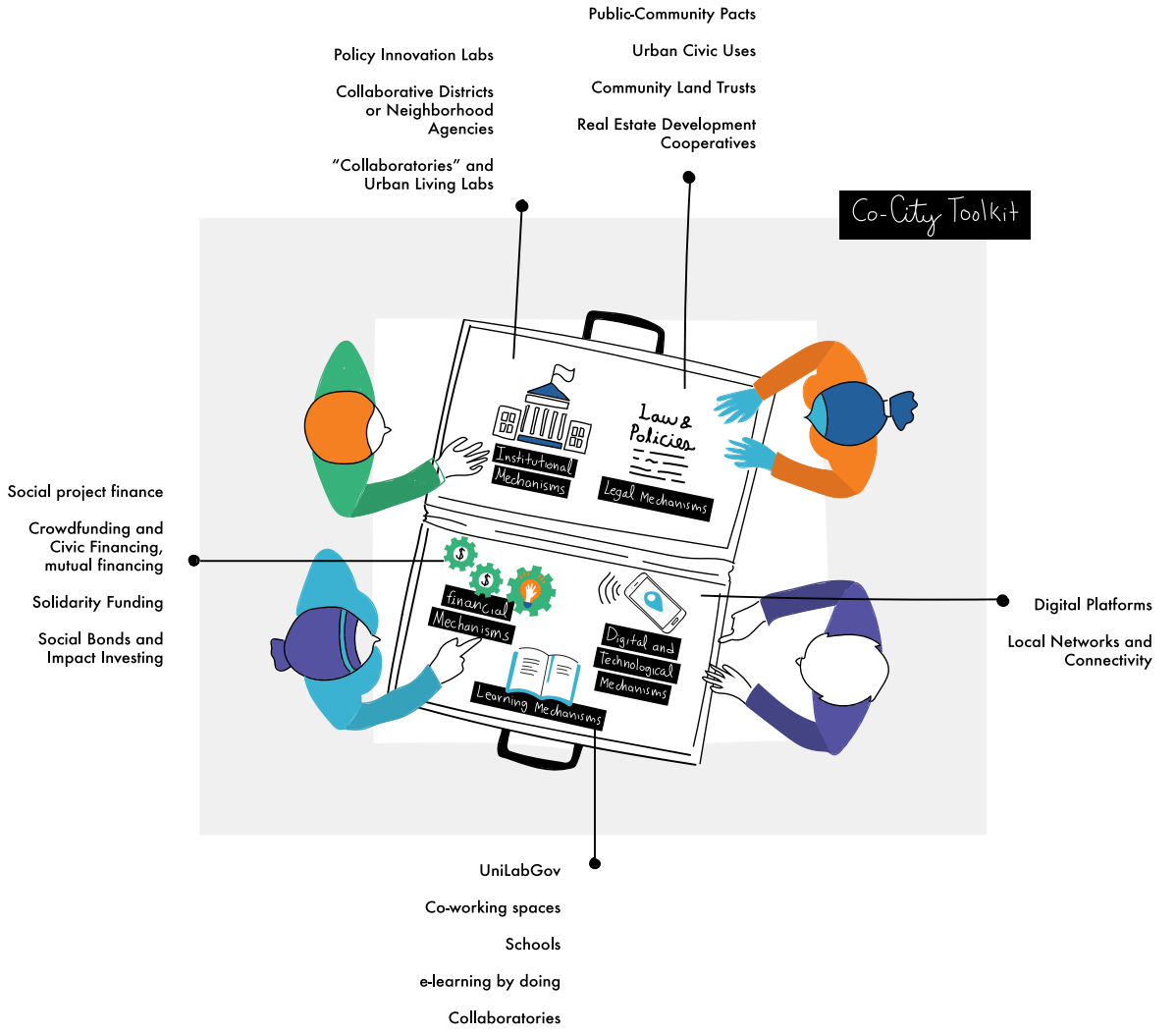
This paragraph will summarize the recurring institutional, legal, learning, and financial mechanisms or tools that are employed to construct, govern, and sustain a variety of shared urban resources consistent with the principles above.

a. Institutional Tools

The meaning of the word commons goes beyond the idea of a shared resource, or the related community. The commons is the institutional arrangement that allows the coordination and sharing of those resources, and helps to ensure their accessibility and sustainability for a wide variety of users. Our empirical research has demonstrated that the institutional ecosystem of a co-city involves several forms of co-governance at different scales. Institutional tools are those physical and virtual spaces arranged within the city administration or in key areas for the City such as facilities, spaces, laboratories created to generate environments that facilitate co-creation of co-governance of different kinds of shared urban resources, assets and services. Examples of such institutional arrangements are Policy Innovation

16 J. Farrell, M. Rabin, Cheap Talk, 10 The Journal of Economic Perspectives, 3 103-118, (1996).
17 Amy Poteete, Marco Janssen & Elinor Ostrom, Working together: collective action, the commons, and multiple methods in practice, 29, (2010).

18 MICHAEL P. HOWLETT, SCOTT FRITZEN, M. RAMESH, XUN WU, THE PUBLIC POLICY PRIMER: MANAGING THE POLICY PROCESS, ROUTLEDGE, NEW YORK (2010).



Labs and Collaborative Working Hubs, Neighborhood Agencies and "Collaboratories" or Urban Living Labs, that operate as a catalyst to foster mutual learning and co-creation (Ostrom & Hess, 2007, 13, 327).

b. Legal Tools

There are a wide range of legal instruments available to implement an urban co-governance scheme and to support the kinds of institutional tools showed above. The tools are designed to ensure that shared resources meet the needs of local communities, and often are focused on making those resources more available, accessible and affordable to a broader range of urban residents. Legal tools for governing the commons came into focus with the well-known Bologna Regulation on Collaboration for the Care and Regeneration of the Urban Commons. Other Examples of successful legal tools adopted by cities are urban Civic Uses and Community Land Trusts.

c. Economic and Financial Tools

There are also economic and financial tools that enable social and pooling economies and are created by attracting funding from different urban actors. These pooled sources of funding form around the collaborative economy and support the efforts of those city residents who partner with various stakeholders from other sectors to cooperate for the general interest. Some financial tools rely heavily on civic financing and crowdfunding, or solidarity funding through cooperative institutions. Social project finance tools, such as impact investing and social bonds, or the use of blended capital, are economic and financial strategies aimed at developing a social and community-based economy to support regeneration of blighted urban areas through economic development.

d. Digital and Technological Tools

Technological and digital tools can be both the ends and means of urban co-governance strategies. Access to technological infrastructures can be a means to social justice because many services and income opportunities depend on acces to high speed or broadband connection. In order to guarantee access to the technological and digital infrastructures in underserved areas, communities can self-organize for autonomous access, such through wireless community networks. Similarly in the energy area, many communities are beginning to self-produce or contribute to the management of energy distribution through tech innovations, such as microgrids or by creating energy communities.

1.4 The experimental phase in Italian cities: the Co-Cities experimentations

The principles and tools presented above have served as a conceptual background for the design of a process-based protocol for "collaborative cities" or "co-cities". The protocol was first applied and implemented in 2014 in the Italian cities of Mantua (the Co-Mantova project) and Bologna (the Co-Bologna project). Then Battipaglia (Co-Battipaglia), Reggio Emilia (Co-Reggio Emilia), Toscana (Collaborative Tuscany) and Roma (Co-Rome). The following section provides a brief overview of the experimental fieldwork conducted in Italian cities in which the main concepts and theories outlined above have been applied.

1.4.1 The Co-Bologna program

Co-Bologna (https:/co-bologna.it/) was the first Co-Cities experimentation carried out by LabGov. It is the first applied research project aimed at applying, testing and adapting to the urban environment the design principles for the governance of the commons developed by Elinor Ostrom. The Co-Bologna program was developed within the context of a policy strategy carried out by the City of Bologna to implement a policy ecosystem supporting civic collaboration. In 2011, the City of Bologna initiated a policy process to introduce collaboration as a method for governing the city and many of its urban resources. After two years of field experimentation in three city neighborhoods, and in the context of the "City as a Commons" project supported by the Fondazione del Monte di Bologna and Ravenna[19], in February 2014 the City of Bologna adopted a regulatory framework, the Bologna Regulation on Civic Collaboration for the Urban Commons.

The central regulatory tool of the Bologna Regulation is the "pact of collaboration," through which city government and local residents and other actors (informal groups, NGO's, private entities) agree on interventions of care and regeneration of urban commons across the city (green space, abandoned buildings, squares, etc.). Since the approval of the Regulation, more than 400 pacts of collaboration have been signed[20]. The City of Bologna has been internationally recognized for this regulation and the successful implementation of these pacts to govern urban commons throughout the City.

The Co-Bologna project, initiated in 2015, aimed to apply the same design principles animating governance of the urban commons to other local public policies. Co-Bologna is an open pact of collaboration between the City of Bologna and the Foundation Del Monte of Bologna and Ravenna and operated under the scientific coordination of LabGov. The second phase involves the experimentation of co-designed governance institutions in three fieldwork sites which correspond to three city areas that characterize three main pillars of the Co-City. The neighborhoods each represent one of these pillars: Pilastro (making together, urban commons) Bolognina (living together, social innovation) and Croce del Biacco (growing together, collaborative economy district).

Another core aspect of the Co-Bologna process is the establishment of an Office for Civic Imagination. The Office for Civic Imagination is a policy innovation lab, structured as a co-working area internal to the municipal administration through which civil servants can work together in order to find innovative solutions to common urban problems and to implement those solutions in accordance with the principle of civic collaboration.

Finally, the Co-Bologna process also includes the evaluation of the Bologna Regulation, in order to understand the impact of the public policy on urban democracy and on the urban commons. This evaluation is one of the crucial phases of the Co-cities "protocol," which describes the process of creating or designing a collaborative public policy to implement the city as a commons. The evaluation process is conceived as an intermediate phase between prototyping and modeling, intended to enrich the understanding of the evolving policy process and to introduce appropriate corrections.

The evaluation process consisted, in the first phase, of a qualitative desk analysis of the 280 collaboration pacts generated as a result of the Regulation, in order to verify what are the conditions in the city fostering collaboration between different actors and the choice of the objectives (micro-regeneration, management of a physical space, etc). The second phase consisted of a survey submitted to all the signers of the pacts, to gain deeper knowledge of the impact of the process. This methodology is coherent with the principles of experimentation and adaptation as crucial characteristic of an innovative collaborative policy making at the urban level.

The Co-Bologna process has helped us to conceive of, implement, and model the Co-Cities protocol, as well as to extract the design principles guiding the research and analysis in contained in this open book. The experience of the Co-Cities protocol has guided further experimentation and testing in other Co-City sites around Italy: Co-Mantua, Co-Battipaglia, Co-Reggio Emilia, Collaborative Tuscany, Co-Rome.

1.4.2 Co-Mantova – culture as a commons

After the launch of the Co-Bologna project, Co-Mantova[21] was born. Like Bologna, this project began as an "institutional prototype" focused on the collaborative care and regeneration of cultural commons and included also collaboration pacts to activate local collaborative governance in the city. As in Bologna, the pacts are an institutional tool to promote and collect the energies of the 5 actors of the quintuple helix.

The first step of the process in the City of Mantova was "seeding social innovation" through a collaborative

19 Elinor Ostrom & Charlotte Hess (eds) Understanding knowledge as a commons, Cambridge, The MIT Press (2007) 13, 327.

20 The City of Bologna created a section of the City Institutional Platform dedicated exclusively to the implementation of the Regulation. On the Comunità_Iperbole Platform you will find the pacts' of collaboration proposals, the final text approved, news and updated about the Regulation and the public notice for pacts proposals and public discussions on the urban commons. Available at: http:/partecipa.comune.bologna.it/beni-comuni.

21 Co-Bologna materials are available at: http:/co-bologna.it/

call for ideas regarding "Culture as a Commons" and to bring forth social innovators. This call was promoted by the Province of Mantova, which identified 7 main projects by young people under the age of 29 years concerning the collective, shared management of cultural commons. In Mantova, both culture and cultural heritage involve material and immaterial resources and are considered the cornerstone on which to build local alliances among all local actors willing to interpret "culture as a commons." Cultural heritage became the driving force for a community-led, commons-oriented new development paradigm for the territory of Mantova as a way to revitalize Mantova by harnessing social innovation, creativity and digitalization.

The second step of the process was establishing the co-design laboratory, "Entrepreneurs for the Commons," which was promoted by the "Cooperatives and Civil Economy Entrepreneurs Group" – established within the Chamber of Commerce of Mantova—as an ideas camp where the seven projects from the call were cultivated and synergies created between projects and with the city. The Lab approach is based on the direct involvement of the actors of the project who participate in co-design and co-working. The Mantova Lab's goal was the development of innovative solutions for the shared management of cultural commons, supported by the use of ICT.

Another aspect of the Co-Mantova project was the digitalization of cultural heritage, a crucial element for the development of cultural economy, through fab labs. These fab labs are the incubators of the third industrial revolution, training for social innovation. The Mantova lab applies the method of co-design, participatory design, collaborative communication as a means to prototype and test practices involving the shared care of cultural commons. Project activities require testing of a living lab and Fab Lab and the creation of an incubator for cultural and creative enterprises and cooperative placemaking. The end result is the care and regeneration of the cultural heritage of Mantova, which can be cultivated, improved and finally become the engine of a "collaborative cultural and creative community interest enterprise". According to the project, local businesses and entrepreneurs play an essential role in the shared management of cultural commons, functioning as an intersection point among public administration, non-profit sector and citizens, following the idea of sharing resources and competences of each one to reach a common aim.

The third phase was the governance camp, a collaborative exercise in prototyping aimed at creating a long-term, sustainable form of commons management. This phase gave birth to Co-Mantova and led to the drafting of the Co-Mantova Collaborative Governance Pact, the Collaboration Toolkit and the Sustainability Plan, which was presented to the public during the Festival of Cooperation on November 27th 2015.

1.4.3 Co-Battipaglia – collaborative urbanism

Co-Battipaglia (https:/co-battipaglia.commoning.city/) is the result of a co-design/co-planning Laboratory "Organized legality," which is open and collaborative. It has become a nursery of civic energy for growing the future of the territory. The Prefect, appointed in Battipaglia in 2014, after the dissolution of the Municipal Council due to Mafia infiltrations, commissioned a study from both architectural firm Alvisi-Kirimoto and LabGov in order to develop the strategic guidelines for the Municipal City Plan (PUC). The team strove to produce the guidelines for the realization of a collaborative territorial/local Pact for the care and regeneration of local commons. The Pact would create a stable public, private, community partnership, to be technically validated and shared between citizens and local institutions.

From February to March 2015 the team interacted with associations, active citizens, social innovators, enterprises, public administrations and city schools. The meetings have been held in the ex-Scuola De Amicis of Battipaglia. From the participatory process emerged four main themes, that served as the base for the definition of a urban collaborative strategy for the regeneration and redevelopment of the city:

1. Public Battipaglia: recovery and reuse of abandoned public spaces (green areas, meeting places, etc.);
2. Regenerated Battipaglia: reactivation of old industrial areas, masserie and cascine (typical farmhouses), and seized mafia assets as source of potential economic development;
3. Ecological Battipaglia: tackling geological risk and groundwater pollution, setting land use regulations (quarries and greenhouses), protecting coastline and redesigning urban transport;
4. Creative Battipaglia: turning sites such as the ex-Scuola De Amicis, the Castelluccio, and the Tabacchificio into culture, research, and science hubs

1.4.4 Co-Reggio Emilia – a Collaboratory as an incubator for community-led economic development.

Co-Reggio Emilia is a process promoted by the City of Reggio Emilia in collaboration with the University of Modena and Reggio Emilia and the strategic support of Kilowatt, a social innovation platform based in Bologna. The Co-Reggio Emilia process began with CollaboratorioRe, a co-design process leading to the creation of the Open Laboratory of Reggio Emilia. #CollaboratorioRe aims at creating the first incubator of sharing and pooling economy of Reggio Emilia, a new urban actor which will revolutionize the way we think about the city and will emphasize the role that civic collaboration should play in the care and management of the urban commons.

The first phase, which came to conclusion in the beginning of November 2016, consisted of launching a public call to allow all the actors to express their interest in participating in the co-design process and to propose their ideas. Along with this, a series of thematic

workshops and presentations took place and involved the participation of hundreds of citizens. This step ended with two co-design sessions where the participants analyzed numerous projects (more than 60) that had already been proposed and tried to define together how to make their collaborative energies converge towards tangible actions.

The first phase saw the emergence of themes, values and suggestions to identify those elements that could become the foundations of the open laboratory. They included the creation of a cultural and creative enterprises, the construction of community cooperatives, new forms of welfare, the creation of programs to spread a form of "urban pedagogy" (starting from the already famous Reggio Approach), and the formation of a "community observatory" to measure and monitor the impact of the new initiatives.

Following the co-design sessions, a second phase began which involved the transformation of Reggio Emilia into a field of experimentation for collaboration. In this phase, multiple realities converged to prompt participants to work together to produce immediate solutions to the needs that had been identified. During the early winter months the participants organized into four different communities and worked on the development of four different prototypes:

1. a cultural and creative enterprise, as a model to design the governance of the collective enterprise that will have task to manage the cultural and archeological heritage site "Chiostri di San Pietro" in Reggio Emilia;

2. a community cooperative, as a tool to create a public-private-community partnership using new technologies and spurring innovative forms of community welfare provision;

3. an observatory on the measurement of environmental, social, economic and cultural impacts and monitoring of the integration of services to the community

4. an urban pedagogy clinic to extend the "Reggio Approach" to the entire city as a way to spread a culture of collaboration and cooperativism and to foster the exchange of skills among inhabitants.

Building on what emerged from the whole process, in the third phase it was possible to define the guidelines for the Open Laboratory and to design the identity, the methods and the form of governance of the future actor.

The Open Laboratory has thus been imagined as a key instrument for the development of innovative socio-economic solutions for individual and community needs, through new forms of collaborative economy. The 'commons' will be at the center of the activity of the laboratory, highlighting how the shared and participatory governance of these resources can lead to generate social and economic benefits for the whole community.

Digital tools and technology will also serve as key enhancing factors for the development of innovative services, products, and innovative public policy solutions, further allowing the lab to become a true incubator of new ideas and sustainable projects, able to open up job opportunities and to link young generations to the job market.

1.4.5 Collaborative Tuscany – co-creating a public policy on the sharing economy.

CollaboraToscana or Collaborative Tuscany (Co-Tuscany) is a process activated by Presidency of the Tuscany Region (which holds the mandate to encourage innovation and participation) with the aim of creating a "Collaborative Tuscany Green Book", which is a policy paper outlining the Agenda for a regional policy on sharing and collaborative economy. The process is curated in terms of its methodology by other partners, including Sociolab with the support of Collaboriamo, a network of collaborative economy experiences in Italy. The green book on sharing and collaborative economy will contain a map of the regional public policies that need to be put into synergy and a proposition of goals, actions and measures, identified through the co-design process, that will have to be applied on different levels to maximize the opportunities while limiting the risks involved in the new practices that will develop in this field.

#CollaboraToscana represents a first experience on the regional, national and international level in terms of the co-creation of a public policy on the sharing economy through the involvement of local actors. The process is inspired by the principles and methods used in 2011-2014 for the development of the Bologna Regulation and by the experience with the drafting process of the Opinion on the local and regional dimension of the Sharing Economy produced by the Committee of the Regions of the European Union. #CollaboraToscana builds on the knowledge acquired through these previous experiences but also develops its peculiar features. First, it is important to take note of the choice to define the project around the four pillars of the local public economy: local infrastructures, common goods, collaborative services and local public governance. Particularly innovative is the governance aspect, as it implies the willingness to question and to rethink the role of the public sector. Another element of innovation lies in the choice of the green book as the outcome of the process. Such choice reflects an experimentalist and European approach, as the green book is an instrument that belongs to the European legislative practice and is not common in the Italian one.

The process of #CollaboraToscana opened with a first phase envisioning a series of thematic workshops and co-design sessions that took place between June and November 2016. These workshops saw the involvement of different components of the regional structure and of stakeholders coming from multiple realities (enterprises, start-ups, third sector, active citizenship). The process aimed at building a complete understanding of the concept of collaboration (meaning, opportunities and risks), at deepening the reflection on the themes around which the discourse on collaboration can be articulated (infrastructures, services, goods and governance) and at developing instruments (digital, political, regulative, etc) that could possibly build a policy on sharing and collaboration.

Drawing from the values, ideas and suggestions that have emerged from the workshops, the co-design community of #CollaboraToscana will proceed to define, together with members of the regional administration, the principles and the administrative, regulatory and public policy instrument needed to enable collective action and to improve local collective democracy. Through the process of #CollaboraToscana it will be possible to produce a green book on sharing and pooling economy that will present a map of regional public policies together with a proposal of objectives and measures to apply at different levels in order to maximize the opportunities of the newly emerging sharing and pooling practices.

1.4.6 Co-Rome social partnership. Experimenting co-governance at the district level.

During the academic year 2015/2016, the applied research and teaching platform run by LabGov at LUISS University of Rome started an applied research and experimentation process on co-governance at the district – level in a metropolitan city. The process was aimed at experimenting the Co-City protocol, applying the first four phases (knowing, mapping, practicing, prototyping) at the district-level in the biggest city in Italy, the City of Rome. The project started through a process that involved university students and local actors active in the field of the urban commons in the city of Rome: local associations, institutions, entrepreneurs and professionals.

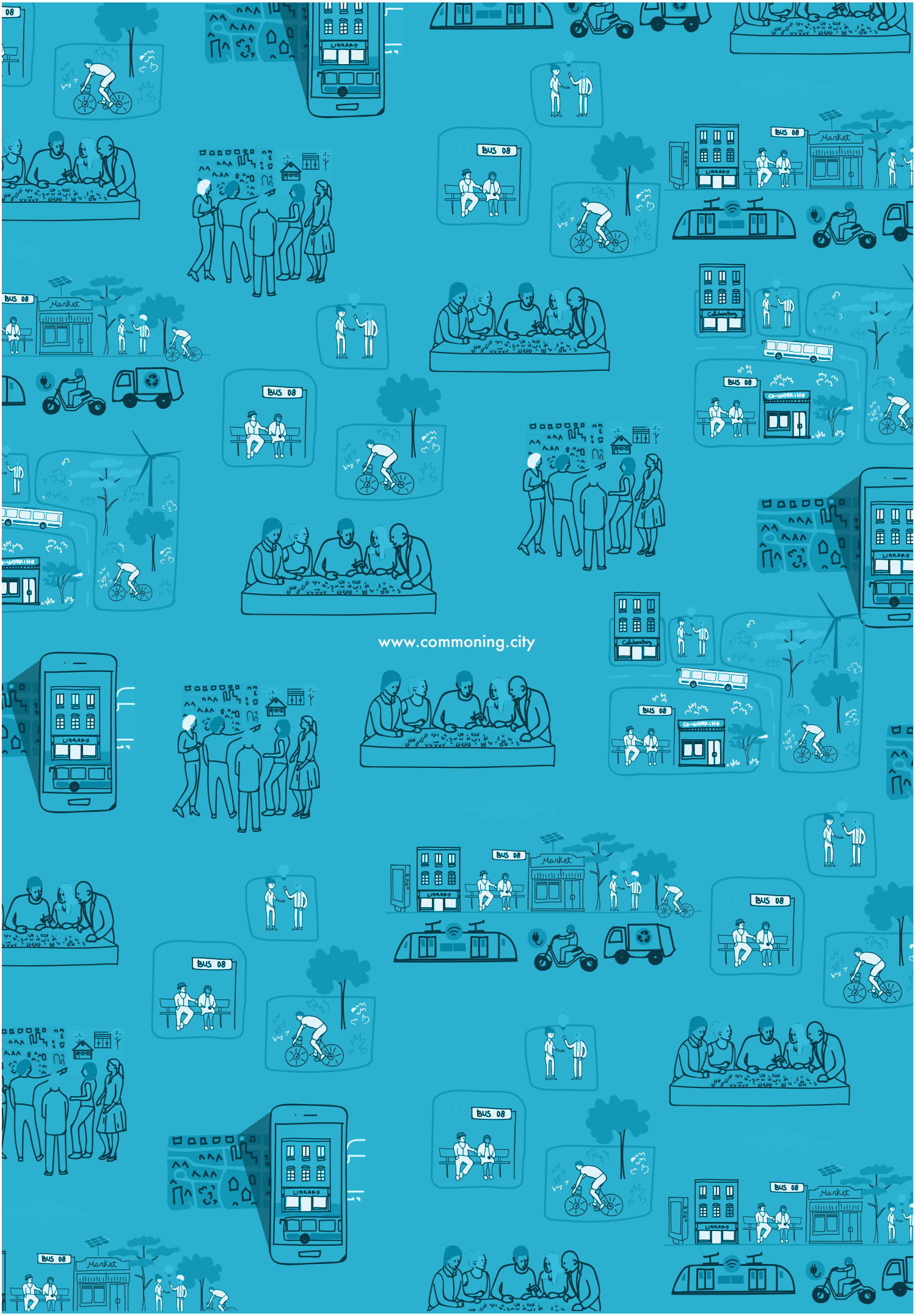
In the first phase, cheap talking, there were a series of preparatory meetings and discussions involving scholars, practitioners, experts and activist working on urban co-governance and representatives of collaborative communities active on the Roman territory. A mapping phase followed, consisting in activities in both analogue and digital mapping. As such, on-the-field explorations and dialogues with local actors were conducted alongside with the development of a digital platform (the Co-Roma platform) allowing for a collaborative and open discovery of the territory. The mapping phase allowed the location of different fields suitable for the activation of an experimental process, and a further assessment of the suitability of these areas a series of micro-experimentations were developed on the ground.

The knowing, mapping and practicing processes led to the identification of a "co-district" as the most suitable area in the city to experiment with urban co-governance. The co-district is composed of specific neighborhoods (Centocelle; Alessandrino; Torre Spaccata; Tor Sapienza) representing the lowest Human Development Index in the City of Rome as demonstrated by the presence of high or very high social and economic vulnerability indicators. At the same time, it is characterized by the presence of different actors that are active or are interested in being involved in a process to contribute to the care of the commons in the area, or to start up a project of urban co-governance of the commons.

Having identified the experimentation field within the City, the project has entered in the practicing and prototyping phase, and a co-design process was activated. One key objective of the prototyping phase was the creation of a local working group, which is collaboratively managed and committed to working together. During this phase, through several co-design workshops[22], it was possible to locate and bring together all the relevant stakeholders and to collectively define the future actions for the recovery of the Archeological Park. Using co-design techniques and instruments, the workshops guided the community in a complex process which, starting from self-reflection and from the identification of the group's strengths and objectives and of the community needs, allowed for the identification of priorities and of possible future actions.

The co-design path led to the creation of a community association (Comunità per il Parco Pubblico di Centocelle) for the care and regeneration of commons area. Since its creation the community has promoted several actions, facilitated and supported with technical expertise within the Co-Rome process. The kind of activities that the CPPC community carries out ranging from the opening of passages for pedestrians to the planting of trees, with the aim of making the park more accessible and livable, while at the same time creating the basis for further collaboration within the community and outside of it, with the local stakeholders and the municipality.

22 The digital storytelling of the fieldwork in the "Co-district" in Rome is available here: http://co-roma.it/co-roma-2/cantiere-co-distretto-roma-sud-est/.


www.commoning.city