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Policy knowledge exchange in a cities' network: an introduction to the City Protocol

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1 Introduction

The growing urbanization process and the core characteristics of the information society have situated cities and their knowledge management capacities at the center of scientific and policy-making debate. The contribution of knowledge is twofold: it can inform the competitive strategies of local governments interested in exploiting its potentiality as key asset of the current information economy, and at the same time it constitutes a resource to support local governments' policies and practices regarding urban development and governance.

In this context, academic literature has increasingly paid attention to both approaches, even in an intertwined way, expanding theoretical concepts such as knowledge-based city, smart city, learning city, cities' networks, policy transfer, policy learning and policy mobility. The current project embraces the second approach and conceptualizes knowledge as a policy resource. Still reviewing all the conceptual perspectives, the project focuses on the theoretical framework of policy transfer, developed within the domains of political sciences and international relations, and combines it with theoretical insights on knowledge management, developed within the domains of organizational theory and strategic management.

In light of the historic momentum knowledge management and cities are experiencing, specific and formally dedicated cities' networks have been established with the purpose to structure knowledge exchange among urban communities. The current project sets out as research problem the importance of these networks for local governments' interests; it undertakes this endeavor by identifying a recently established cities' network to explore the production of learning and policy knowledge exchange through a specific empirical case: the City Protocol.

The current project is organized as follows:

- The state of the art, by referring to prominent contributions within the urban studies domain, introduces to the important role contemporary cities play with reference to knowledge management as a key component of the information society. This chapter further justifies the project by outlining the current scientific production that has empirically addressed cities' networks devoted to knowledge exchange.
- The theoretical framework bridges the conceptual framework on knowledge management with the one on policy transfer in order to elaborate an analytical perspective to inform the empirical work.
- The fourth chapter introduces to the object of study by reviewing its organizational and communication documents.
- Starting from the abovementioned research problem, an overall research question is formulated with consequent elaboration of two specific research questions, leading to identify six research objectives that will structure the empirical work.

- The chapter on methodologies presents the research design and data gathering and analysis techniques that have been deployed to respond to the research questions.
- The sixth chapter presents the results of the empirical study based on interviews' content analysis.
- The results of the empirical study are discussed, liaising them with the theoretical framework, and proposing several considerations with reference to the relevant research agenda.
- The chapter on conclusions summarizes the research project.
- Lastly, the limitations of the study are outlined, both from a theoretical and methodological point of view.

2 State of the art

In the 90s and even earlier, some authors (for instance: Knoke, 1996; Naisbitt, 1996; Negroponte, 1995) prognosticated the end of the city by claiming that the ongoing fast and dramatic technological innovations, and concretely the improvements in telecommunications, would have created a "space-less world" (Gaspar & Glaeser, 1998). However, we are not only witnessing the end of cities, we are, instead, experiencing the largest trend of urbanization in history.

By 2050 globally 66% of the world's population will live in urban areas; we can clearly understand the magnitude of the urbanization rate if we take into account that in 1950 only 30% of the world's population was living in urban areas. This process is closely intertwined with the current population growth trend - as 2.5 billion people will be added to the world's urban population by 2050 - and is not homogeneous across the planet as almost 90% of the increase will be concentrated in Asia and Africa (UN, 2014).

This quantitative change in the distribution of inhabitants in urban areas is correlated with a qualitative transformation of the city that links with two main contemporary socio-economic transformations: the economic globalization and the rise of the information and communication technologies. The spatial dispersal of the economic activities and particularly its advanced services thanks to the global capital flows, telecommunication and transportation infrastructures, requires at the same time central functions to be concentrated in selected urban centers to manage and control such dispersal (Friedmann, 1995; Sassen, 2003; Sassen, 2010; Matthiessen, Schwarz, & Find, 2010).

Contrary to the prophecies on the end of the urban age, we are experiencing the emergence of a new spatial form. As Hall & Pain (2006) notice, the polycentric megacity regions are separate local places that, integrating pre-existing towns, its territories and discontinuous countryside by transportation and communication infrastructure, integrate a single functional region.

As a wide legacy of projects and initiatives around the world demonstrate, the built environment and, in general terms, the structures of the city are still often prioritized over

the highest capital and advantage of cities, which are its people (Glaeser, 2011). At the same time, the rise of the information technology makes evident the need to provide the cities simultaneously with two interdependent assets: the hard networks, made up of physical and digital infrastructures, and soft networks, made up of relations among people (Malecki, 2002). The emergence of "smart city" initiatives represents in this sense a new approach to urban governance and development, which embraces the need to address both the hard and soft networks; as the momentum and heterogeneity of this phenomenon have brought confusion on the definitions of the concept, Chourabi et al. (2012) have elaborated a framework that identifies 8 components in smart city initiatives – management and organization, technology, governance, policy, people and communities, economy, built infrastructure, natural environment – and identify the economic component as the main driver of smart city initiatives while the technology as the unique "meta-factor" that can affect to the other dimensions that smart city initiatives integrate.

A deeper analysis of the urban policy approaches, however, leads to reflect on the conjunction of technology and individuals and to unfold the key aspects that underpin the success of the city as human connectivity and knowledge site. Precisely on the contrary to the futurologists' view on the death of the city and as Glaeser (2011) notices, the impact of the information technology and electronic communication have made our world more information-intensive increasing the need to learn and master the growing complexity of human knowledge and communication processes through the face-to-face interactions enabled by urban agglomerations. As Sassen (2003) points out, the leading economic sectors need from cities up-to-date information technology infrastructure, but also human resources and a social network infrastructure to boost its connectivity, as there are basically two kinds of information: the first one is accessible from everywhere thanks to technology, while the second is of higher order, possible thanks to a complex mix of resources, and refers to interpretations and inferences drawn by skillful and informed people. As Castells (2010) synthesizes, contemporary cities provide spatial concentrations of possible interpersonal interactions among valuable partners, as face-to-face communication has a much broader bandwidth than digital distant communication; knowledge sites and communication networks, the author continues, are the spatial attractors of the information economy as natural resources sites and power distribution were the spatial attraction of the industrial economy.

A close tie, thus, links cities and knowledge. It should be noticed, however, that cities, across different historical moments, have always been centers of processing and dissemination of information (Mumford, 1961): for example, in his account of the European medieval city as a key moment within the capitalism genesis, Weber (1996) underlines, among other aspects, the importance of cities as marketplace for ideas and goods. At the same time, still throughout history, knowledge and information have deeply underpinned prosperity and hegemony from a political, military, economic and cultural point of view (Castells, 2001). What we are currently experiencing is that, thanks to the technological-based increasing capacity to process information and in parallel to the migration of manufacturing jobs to lower-cost labor markets, economically advanced countries have

conversed its developmental model from an industrial-based economy to a knowledge-based one, structured around the creation, processing and transmission of information (Bates, 2010).

The momentum of knowledge has brought scores of cities to engage in competitive strategies (Malecki, 2002) oriented to foster the cognitive infrastructure of scientific-technical-medical and creative-artistic activities (Stock, 2011). This brings to raise a crucial question: is the knowledge-based developmental model a feasible scenario for all the cities across the world? A swift reply is no. As the network society emerges as a new social structure constituted by the intersection among information technology, globalization and networking as the main organizational social form (Castells, 2002), all those places that are not inserted into specific networks of value creation are excluded (Castells, 2010). Furthermore, and with regard to the new spatial form that is emerging from the urbanization process, it should be observed that, if we consider mega-cities those urban settlements with more than 10 million inhabitants, only around 1 in 8 lives in one of the 28 mega-cities currently spread across the planet (they are projected to increase to 41 by 2030); close to half of the world's urban population actually still dwells in settlements of less than 500,000 inhabitants (UN, 2014). It becomes evident that, without denying the clear importance of selected cities as strategic nodes of the global economy, the urban world is made up of human settlements inserted in a wider and more diversified range of contexts (McCann, 2004).

Beyond economy, there is, however, an additional lens that accounts for the complex relationship between local and global and that covers, throughout an uneven geography, the wide heterogeneity of cities across the world: the circulation of knowledge on policy-making and governance (McCann & Ward, 2013). Knowledge, thus, also brings an opportunity to cities in relationship with the institutions of political representation and management that govern them. Local governments are called to play a crucial role due to the crisis of the traditional nation-state concept and the consequent growing devolution of political power from the national sphere to the regional and local level (Castells, 2009). In the face of the globalization dynamics and consequences, municipal institutions deploy locally a pragmatic approach to governance, as they get closer to the needs of their communities, while at the same time they boost internationally their own agenda showing the transformative impact on urban problems and, consequently, their contribution to global governance (Barber, 2013). Going beyond traditional nation-state divisions of Global North and South, hundreds of cities from across the world are connecting, networking, collaborating and learning from each other around several topics of urban policy and practice that have a clear global impact, such as transportation, environmental sustainability, urban management and water usage (Campbell, 2012).

In light of the growing importance of cities' action at international level and the interrelated momentum knowledge is gaining in this realm, the present research project aims at exploring this link by studying a recently established network specifically dedicated to foster knowledge exchange among cities.

Therefore, this project aims at contributing to the specific current scientific literature that explicitly identifies as empirical cases existing networks of cities that, being its unique mission or not, are formally dedicated to policy knowledge exchange. It should be remarked on this regard that, despite the growing importance of cities' action at the international level and its relevance within the scientific community, the number of empirical studies that address transnational cities' networks specifically as per their policy transfer mission is limited, and the reasons accounting for this gap need to be nuanced.

The mission of transnational cities' networks is traditionally not limited exclusively to policy transfer and learning, and this is equally reflected by the academic literature that focuses on these empirical cases. Bouteligier (2013), for example, starting from networks literature, analyzes the power relations of two transnational municipal networks (TMNs) within the global environmental governance domain, Metropolis-World Association of Major Metropolises and C40-Cities Climate Leadership Group, to notice how inclusive approach and simultaneously uneven North-South divide influence the transfer of best practices, but also other organizations' key functions such as access to financial and human resources, connecting and networking with several actors, and agenda setting. On a similar track, Niederhafner (2013) explores regional similarities and differences between Europe and Asia by analyzing comparatively 9 transnational cities' networks - Association of Cities and Regions for Recycling and Sustainable Resource Management (ACR+), Climate Alliance, Energy Cities, Eurocities, Union of the Baltic Cities, Asian Network of Major Cities 21, Citynet, Clear Air Initiative for Asian Cities, and Kitakyushu Initiative for a Clean Environment – noticing how cities are willing to networking internationally in order to gain knowledge on solutions to similar challenges, but also in order to lobby and gain influence, and access financial means, dealing with environmental, social and economic policy goals. Going further, the study of Betsill & Bulkeley (2004) on ICLEI-Local Governments for Sustainability's Cities for Climate Protection (CCP), a transnational network of cities specialized on climate change mitigation, and its impact in 6 member cities in Australia, UK and USA, shows that information exchange cannot be the sole network driver, as it is complemented by the network's capacity to mobilize financial and political resources, stressing at the same time how the learning process itself is more a matter of discursive struggle among different actors, that want to promote their interpretations, than a rational process where actors simply acquire new knowledge to address a given problem.

At the same time, it is worth pointing out that policy transfer and learning among cities can be approached epistemologically by scientific literature through a range of different empirical approaches that differ from focusing solely on international cities' networks. Campbell (2012), for example, still locating his research at the international scale and, unavoidably, relating to transnational networks, advocates that cities need to develop informal trusted links among the key actors of their urban community to learn, innovate and be smart by focusing on 8 case studies - Amman, Barcelona, Bilbao, Charlotte, Curitiba, Portland, Seattle and Turin – through both quantitative methodologies, such as web-based surveys, and qualitative ones, such as focused observations and in-depth interviews. Although focusing on best practices, that constitute one of the main components of policy transfer and learning -

and that, in this case as well, can proceed from foreign cities and initiatives - Macmillen & Stead (2014) explore this concept locally by carrying out a case study on a UK's policy network on sustainable mobility, devoted specifically to the promotion of walking and cycling, integrated by a transport planner, campaign activists, a public offer, a city manager, an academic researcher and a member of a peer-to-peer professional network.

It is possible, however, to address empirically transnational cities' networks adopting solely the learning process as the main object of study. Lee & van de Meene (2012) conceptualize policy learning as a three-stage process - constituted by information seeking, local adoption, and local policy change – and focus on the first stage by conducting a quantitative social network analysis on C40 to explore how information seeking patterns within a transnational municipal network are influenced by: the local policy leadership and stakeholders' work on climate issues; the presence of cities within same geographical regions, with similar geographical terrains, or similar language; and the presence of cities that are outstanding in their climate policies or that face disaster risks related to climate change.

Lastly, it should be highlighted that all the empirical works just mentioned refer to networks that are made up of local and/or regional governments. The peculiarity, and source of interest, that underpins the study of the City Protocol is that it is integrated by local governments, but also by other typologies of stakeholders that influence the urban realm.

3 Theoretical framework for the analysis

This theoretical chapter will start by firstly shedding light on the definition of knowledge and the reasons underneath the momentum it has gained in our society, it will consequently delve into a specific kind of knowledge management that is policy transfer, by outlining key components of it, shaping forces and rising actors, and it will then focus on those actors that play a key role in relationship with cities. The last two sections are dedicated to build on this theoretical review to approach the object of study and identify key aspects regarding the functioning of knowledge networks that will be instrumental to inform the empirical work.

3.1 The importance of knowledge

As crucial as hard to grasp, it should be firstly clarified that knowledge as overall concept can be addressed from several epistemological perspectives. In light of the confusion that exists in the differentiation among knowledge, information and data, this research will start by unfolding this issue and referring to the work of Davenport & Prusak (1998): data is a set of objective records about events and facts that does not bring an inherent meaning, or, said in other terms, does not inform about its own importance; information is a message, in the form of a document or an audible/visible communication, shaped by the sender and meant to shape the receiver, whom at the end will decide whether the message he or she gets is real information or not; knowledge is a complex mix of experience, information, values and insights that allows to evaluate and incorporate new experience and information.

Part of the importance of knowledge as concept, and of the relevance it has within the literature focused on competitiveness, is due to its groundbreaking contribution as corporate asset in the framework of the current information economy. As Boisot (1998) argues, knowledge assets, unlike the physical assets of previous developmental models, do not imply a one-to-one correspondence among the efforts necessary to generate them and the wealth of the services they enable. Still in comparison with material assets and building upon the work of Benkler (2006) on information as non-rival public good, knowledge increases with its use as its transfer mechanism can be basically conceptualized as a replication: it is provided to the recipient as at the same time remains with the donor, enabling both to be enriched in terms of circulation of ideas, content and meanings. As Davenport & Prusak (1998) specify by referring to the work of Alan Webber, technology, as a corporate material asset, decreases as it is used and made available to everyone (unless it is embedded in some tradable service), while knowledge can always guarantee to anticipate each technological change by shifting to a higher level of creativity, quality or efficiency, as the number of potential combination of elements that integrate a process or product are virtually infinite; the authors further observe the emergence of five knowledge-based intangible added values to economic activities – innovation, creativity, design, know how, marketing and customer relations – on the basis of three convergent factors: the improved global communication and transportation infrastructures that increase the products and services competitiveness, the migration of manufacturing labor to developing countries and global firms' specialization in knowledge-based activity at home, and the gradual blurring of the traditional division among manufactured objects, services and ideas.

3.2 From knowledge management to policy transfer

As Alavi & Leidner (2001) state, knowledge management is a recurrent topic addressed, among others, by the literatures on organizational theory, strategic management and information systems. Beyond the conceptualization as corporate asset and source of competitive advantage, knowledge can also be understood as a valuable resource for public governance, by adopting an analytical lens that yields promising insights for the empirical case of the present research project, yet requiring previously delving into several theoretical frameworks related to the domains of political science and international relations.

Seen often through a diversity of working definitions, one of the most common terminologies is "policy transfer", defined by Dolowitz & Marsh (2000, p. 5) as "the process by which knowledge about policies, administrative arrangements, institutions and ideas in one political system (past or present) is used in the development of policies, administrative arrangements, institutions and ideas in another political system". The importance of policy transfer is such that Graham, Shipan, & Volden (2013, p. 673) have calculated that "between 1958 and 2008 political science journals published nearly 800 articles about the politics of public policies spreading from one government to another". The dynamics that

imply such growing need for policy transfer, in line with some of the arguments previously introduced with reference to the importance of knowledge management, point to key aspects of the current global information era: the impact of ITC facilitates the exchange processes of ideas and knowledge (Dolowitz & Marsh, 2000), while global economy entails that public policy is basically interdependent, framed both within national boundaries as abroad (Parsons, 1996), even getting to the extreme, Cao & Prakash (2011) notice, that national governments examine foreign policies and compete with each other in order not to be disadvantaged.

This prolific scientific production brings, of course, to a variety of conceptual approaches that go beyond the scope of this theoretical framework. Stone (2012) provides a chronological review in political science and international relations literatures by identifying four different approaches: policy diffusion, policy transfer, policy convergence, and policy translation. For the sake of simplicity, this theoretical framework will deploy the term policy transfer to refer to the wider variety of practices of policy knowledge exchange. The next sections focus on the objects of policy transfer, the forces that shape it, the rise of new actors, and complementary theoretical approaches to comprehend this phenomenon.

3.3 Objects and shaping forces of policy transfer

Building upon the revisited analytical framework developed by Dolowitz & Marsh (2000), the first differentiation we can draw regarding the objects of policy transfer is among policy – that breaks down into policy goals, policy content and policy instruments - and programs, understanding the former as the vision and intention the policy-maker, often backed up by a specific theoretical statement, wants to undertake, while the latter refers to specific actions, once a decision has been taken, to implement a given policy. Stone (2012), whose transfer categorization is slightly different, rightly argues that we can experience a convergence as per the overall policy goals, yet a divergence with reference to the concrete policy instruments adopted.

Still from the literature review of Stone (2012, p. 486), two additional transfer categories are worth mentioning in light of our object of study: "transfer of ideas and ideologies", which feed the policy-development process, which will later result in the transfer modalities previously presented; and "transfer of personnel", when fact-finding trips, task-force establishments, global consultants or office secondments engender possibilities to transfer ideas and practices.

These objects can be transferred through a range of different processes that Dolowitz & Marsh (2000) define as "degrees of transfer": copying, which implies transferring the whole content of the object; emulation, which corresponds with the transmission of the ideas that feed a given program or policy; combination, which refers basically to a compound of different politics; and inspiration, when, still drawing from a concrete example elsewhere, the policy change can yield different results.

One of the crucial considerations to grasp the reality of policy transfer lies in the understanding of the forces that determine this process. In their analytical framework, Dolowitz & Marsh (2000, p. 13) conceive an explanatory continuum that runs, even through overlapping stages, from "perfect rationality" to "direct imposition". The former, exemplified by the concept of lesson-drawing (Rose, 1991), refers to a voluntarily and rational-based search and choice of policy transfer as an action to solve a given problem; as, however, this decision-making process is in any case based on a perception - which might be even influenced by international pressure gearing towards a given policy acceptance - and relies on limited information, Dolowitz & Marsch (2000, p. 13) identify, as consequent stage of this heuristic continuum, the policy transfer that occurs within "bounded rationality"; at the end of the continuum, we have firstly "conditionality" and then "coercive transfer" to point to a plethora of different mechanisms of policy transfer exerted by multilateral institutions.

The implications of these shaping forces are subtle. If we take the coercive end of the continuum just presented, Dolowitz & Marsh (2000) properly notice that if, for example, an international development agency makes a loan, there will probably be coercive policy transfer as conditionality associated with the credit, while if that same institution celebrates a conference or issue a report, it will probably induce a voluntary policy transfer.

3.4 Key rising actors in urban policy transfer

Resonating with critical voices regarding the formal national state-centered approach of the traditional policy transfer literature (McCann, 2011), this scenario is increasingly characterized by a growing number of actors involved in policy transfer.

With reference to the reality of international development agencies mentioned in section 3.3, Ilcan & Phillips (2008, p.717) have noticed that the debate within the development field has evolved from the "carrot and stick" of loans conditionalities to discourses on partnership and participation between North and South. Similarly, Peck & Theodore (2010) identify a change in the World Bank from structural adjustments and policy-based lending to technical development models that are often introduced by a diversity of actors within the field of decentralized governance, labelled as best practices, and consequently circulated globally. Actually, multilateral institutions, such as the Organisation for Economic Co-operation and Development (OECD), are particularly active to set themselves as reference for comparative analysis, problems and practices identification, and policies coordination, by developing outreach activities that spread guidelines with clear regulatory purposes (Stone, 2012).

As a paradigmatic proof of the role private actors play in policy transfer, a parallel emerging mechanism is represented by private regulatory programs, such as the ISO 9000 certification, that, conceived to improve the communication among buyers and sellers, represent a crucial incentive for actors to join voluntarily quality standards and the associated procedures (Cao & Prakash, 2010).

The most significant shift is, however, represented by those non-state actors that, regardless of state structures, deploy their intellectual resources and market expertise to promote specific policies as "best practices" (Stone, 2004, p. 17-18). Among these, Stone (2012) identifies professional and policy networks that host policy communities of negotiation and establishment of global standards, and shaping of common approaches, that, despite a discursive self-representation of free and fluid networks, result in reality from long-term strategies and the co-existence of several agendas. Often related to policy transfer and learning, the concept of best practice refers to those policy endeavors that, deemed successful, can help in practical terms other policy actors engaged in similar initiatives, although unavoidably constrained by the diversity of local contexts in terms of political, economic and socio-cultural determinants, including even the possibility of differing about crucial informal dimensions such as moral codes, conventions or attitudes (Macmillen & Stead, 2014).

Providing evidence-based resources banks for decision-makers and connecting with standardized global systems, the intellectual resources traditionally deployed by professional and policy networks are, however, a "soft" transfer of policy ideas that differentiates from the "hard" transfer of policy instruments and interests that attracts public officers, having the former traditionally difficulties to become institutionalized and concretely endorsed by the latter, as Stone (2012, p. 494-495) summarizes by asserting: "*knowledge* transfer may be more extensive than *policy* transfer".

3.5 Approaching the object of study

The City Protocol Society is a clear example of policy community and network of professionals that, as described earlier in the contextualization of non-state actors, is particularly active in policy transfer. The following step is therefore exploring theoretically if local governments benefit from such engagement.

It might be argued that the overall interest of cities when engaging in communities dedicated to policy transfer is learning (Lee & van de Meene, 2012). Learning, synthetically defined as the acquisition, processing and employ of knowledge to make change (Campbell, 2009), is in fact a notion that has been approached by urban scholars through different perspectives, such as regional competitiveness, economic innovation, organizational learning, and tactical learning (see for example: Camagni, 1995; Campbell, 2012; Grabher, 2004; Kostiainen, 2002; McFarlane, 2011).

It is argued that the relationship between learning and policy transfer in a given community or network can be comprehended thanks to the theoretical study on policy learning in regional networks of Benz & Fürst (2002, p. 24), where they assert that successful learning initiatives rely on both a "cognitive dimension", the capacity to generate and process information adequately, and a "political dimension", that stems from the ability to properly

manage conflicts and cooperation. This specific link between policy transfer and learning is confirmed by Dunlop & Radaelli (2013, p. 601) that elaborate a theoretical systematization of policy learning, sometimes conceptually contradictory among different studies and literatures, by stating that "the fundamental issue at stake, in all the work on learning, concerns how knowledge is used and deployed by political actors to facilitate learning".

3.6 Knowledge networks

As already seen, policy transfer can be conceptualized as a matter of knowledge management. Knowledge can be comprehended as either explicit - easily formalized, systematized in language and shared and communicated in the form of data or symbols - or tacit - mainly individual, context-specific and rooted in action, experience, values and emotions (Nonaka, Toyama, & Konno, 2000); the authors further state that the conversion from tacit to explicit knowledge, and then back again to tacit, can be achieved by following a process integrated by stages of, respectively, socializing, externalizing, combining, and internalizing knowledge.

Among the several aspects that Gupta & Govindarajan (2000) identify for the optimal functioning of knowledge flows, they stress the importance of the motivational disposition to share knowledge from the source and/or to acquire it from the source. On the same track, Davenport & Prusak (1998) state that, as knowledge's utility relies on the decisions and actions to which it leads and it is difficult to track the path between knowledge and action if it takes place in people's individual heads, the willingness to communicate is instrumental as knowledge becomes a valuable asset only if it is accessible, otherwise managers will always have to reinvent the wheel if the knowledge of an already developed solution has not been shared within the organization. Complementarily, in his study on the process of knowledge application, Grant (1996) emphasizes, among several mechanisms, the importance of establishing problem-solving teams to address, when dealing with high degree of complexity, tasks that are highly-interactive and communication-intensive, and imply high costs in the decision-making process due to the difficulty of communicating tacit knowledge.

Pugh & Prusak (2013) define knowledge networks as networks made up of individuals and teams proceeding from different organizational, spatial and disciplinary domains, and that are assembled with the objective to generate and exchange knowledge, often emerging more for common interest and shared purpose, than for contractual obligation. More specifically, Pugh & Prusak (2013) claim that networks basically yield 4 different typologies of outcomes: coordination, by leveraging network members' existing knowledge activities; learning/innovation, where networks collect and disseminate knowledge as general public good or for its member's usage; translation/local adaptation, to define and adapt knowledge to one's own local context; and support of individual members, where individuals collect and adapt knowledge to support their own and their colleagues' work. Among the aspects characterized by Pugh & Prusak (2013) to build effective knowledge networks, it is worth mentioning: properly explaining the leader's theory of change, that is how the network will

have an impact on members and organization; explicitly defining which kind of membership is sought over cognitive, geographical and professional diversity, and, according to the specific networks' goals, avoiding eventual conflicts of interest; and, despite the social media boom, focusing on offline and online real-time human connection to foster trust building and knowledge sharing.

This last observation clearly refers to the critical role information technology plays in knowledge management. Alavi & Leidner (2001), still bearing in mind that two individuals can exchange knowledge only if they have an underlying shared knowledge space, advocate that information technology can increase the knowledge sharing among informal and causal contacts within individuals, and, above all, increase the value of explicit knowledge. Nonaka, Toyama & Konno (2000), resonating with Pugh & Prusak (2013), remark that in socialization and externalization, close physical interaction is essential to share the context and form a common language among participants.

Not surprisingly, many of the theoretical considerations just phrased resonate with observations in theoretical and empirical studies on cities' networks. Benz & Fürst (2002) in the paper mentioned in section 3.5 underline the need for heterogeneity of actors, to bring as much plurality of beliefs and cognitive systems as possible to deal with complexity, while at the same time ensuring hierarchic architectures where change-oriented actors occupy leading position in order to determine the network policies. Lee & van de Meene (2012), in the quantitative social network analysis of C40 mentioned in chapter 2, notice among other aspects the importance of having high-performing cities on climate change policies, that is to say knowledgeable on this topic, as a requisite to have further cities engaging in the network seeking information.

3.7 Summing up the arguments

Summing up and in brief, policy transfer and knowledge management theoretical frameworks can be conceived in a joint and intertwined analytical framework (Alavi & Leidner, 2001; Benz & Fürst, 2002; Davenport & Prusak, 1998; Dolowitz & Marsh, 2000; Grant, 1996; Gupta & Govindarajan, 2000; Lee & van de Meene, 2012; Nonaka, Toyama, & Konno, 2000; Pugh & Prusak, 2013; Stone, 2012).

Local governments engaged in networks devoted to knowledge exchange learn by means of policy transfer. These networks must be approached taking into account that policy learning is integrated by a cognitive learning – that relies on the capacity to generate and process information adequately - and a political learning – that depends on the ability to properly manage conflicts and cooperation.

This circulation of policy knowledge is not fully rational and straightforward, and might be conditioned by perceptual considerations of political and technical officers, as well as by pressures geared towards the policy acceptance of a given idea. This context implies paying special attention to the differentiation of different degrees of transfer – copying, emulation,

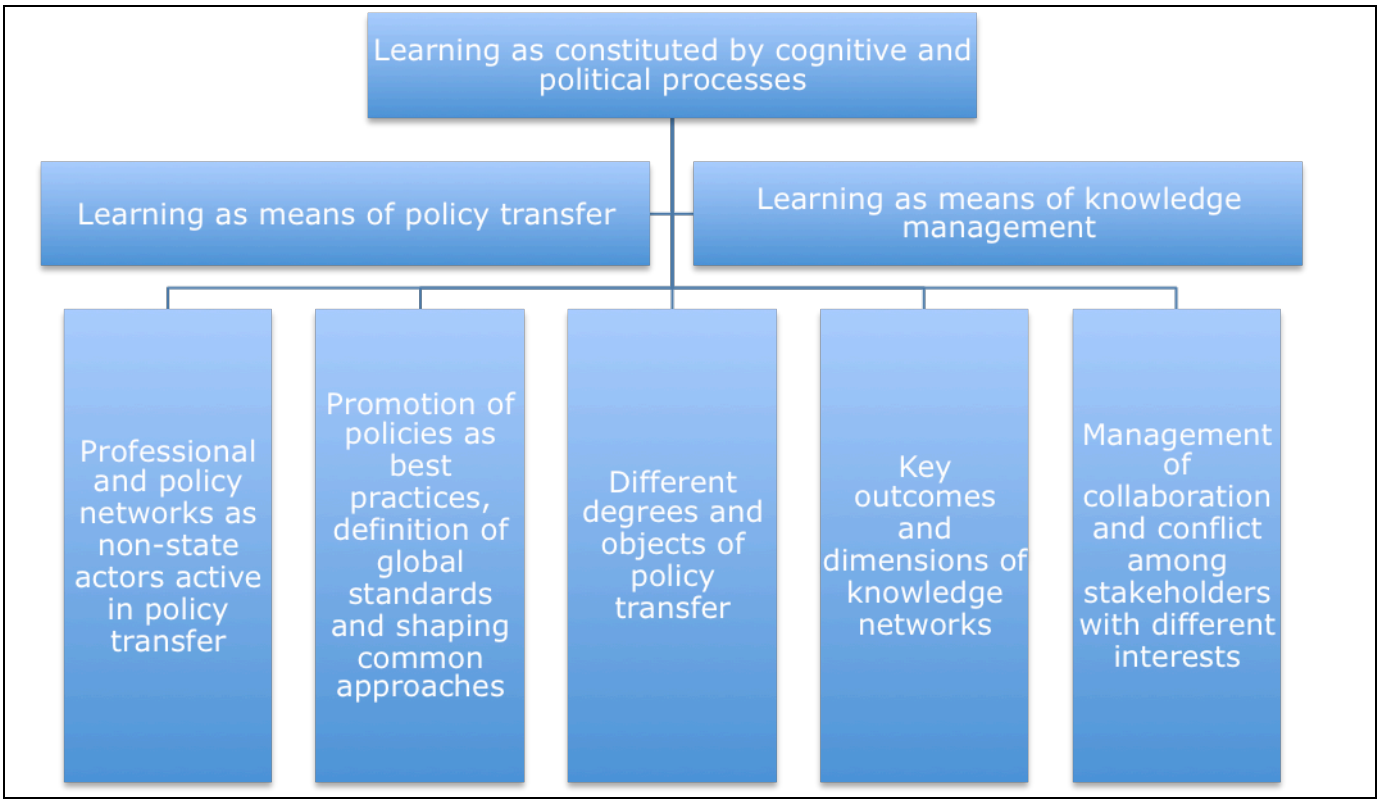
combination, and inspiration – different objects of transfer – policy goals, policy instruments, policy content, and ideologies – and different motivational disposition to share and acquire knowledge.

Among the key rising actors in policy transfer, professional and policy networks play an essential role as communities that establish global standards and shape common approaches. These networks are, however, specialized in "soft" transfer of policy ideas, and have difficulties to capture the attention of officials, which traditionally prioritize the "hard" transfer of policy instruments.

Efficient knowledge networks rely on: the outcomes they yield in terms of coordination, learning, adaptation and capacity-building of individual participants; the existence of shared understanding and joint purpose, and the creation of a common language; the establishment of specific problem-solving teams to deal with thematic complex issues; the leaders' capacity to explain their theory of change; the systematization of explicit knowledge; the membership diversity, yet the supervision of eventual conflicts of interest; and the promotion of trust building.

In a nutshell, the theoretical framework is reproduced in the following diagram.

Graphic 1 ***Diagram of the theoretical framework for the analysis***
Personal elaboration



4 Introduction to the case study

The present introduction is based on online public information on the websites of City Protocol Society (http://www.cityprotocol.org) and City Protocol Task Force (http://www.cptf.cityprotocol.org), and organizational and communication documents made accessible through the abovementioned websites (City Protocol Society, n.d.a; City Protocol Society, n.d.b; City Protocol Society, 2013a; City Protocol Society, 2013b; City Protocol Society, 2013c; City Protocol Society, 2013d; City Protocol Society, 2014a; City Protocol Society, 2014b). When further sources of information are used, they are properly cited.

For the sake of brevity, the introduction to the organization is not exhaustive in scope, but it is rather based on a descriptive, although selective, work that goes over several key aspects of the object of study with a clear purpose: providing as much contextual information as possible to understand the empirical study and, thus, grasp with further depth the social reality represented by the City Protocol. In short, this chapter introduces to the organization as per its founding rationale, historical evolution, governance model and membership, operational functioning, and briefly reviewing its first produced agreement.

4.1 Association, community and agreements

The development of the City Protocol (CP) is the raison d'être of the foundation and mission of the City Protocol Society (CPS). The CP is conceived as a system that, once it has been agreed by the different active stakeholders, organizes and guides the transformation of cities for the benefit of its citizens, by establishing a series of agreement documents and standards. To this end, the CPS backs up the City Protocol Task Force (CPTF), an "open community of experts", who work jointly to research and elaborate "de facto standards" for urban development and governance, and being the experts of the City Protocol Task Force (CPTF) "individuals who volunteer to work together to develop a series of City Protocol Agreements (CPA)". The "Task-and-Finish-Teams (TAFTs) are the activity centers of the CPTF and are organized within Thematic Areas (TAs)".

The CPA, after the initial discussion and evolution of working drafts (CPWD) and consequent review and approval, fall into 3 categories of deliverables - Informational Agreements (CPA-I), Proposed Recommendation Agreements (CPA-PR) and Recommendation Agreements (CPA-R) – spanning as scope from informing about useful concepts, to providing technical and methodological guidelines on particular approaches or on approaches that have already been proved to be deployable in multiple cities and contexts. Due to the importance of the CPA, the process geared to recognize a proposed document as such implies submitting it to several levels of reviews, depending on the category of document, with such process managed by the CPA Editor in consultation with the CPTF Chair and the CP Technical Steering Committee (CPTSC), being this body integrated by the CPTF Chair, CPA Editor, Thematic Areas (TAs) Directors, and CPTF members at large. Guidance and expertise on urban planning and innovation is provided by the City Protocol Chief Architect to both the

CPTSC and City Protocol Board of Directors (CPBD) on all the CPTF deliverables that need to ensure architectural consistency with the City Anatomy framework.

The CPAs are the work result of the collaboration among the different active stakeholders that integrate the CPTF, while at the same time, in order to foster a participation as open as possible, the process that gears towards the publication of the CPAs includes a period of public comment. CPAs are often being developed within one or more TAFTS, being these "typically small, delivery-focused teams with a well defined set of objectives and milestones to address a particular transformational challenge to cities"; each TAFT is integrated within one (or more) of the 8 Thematic Areas (TAs) identified in the City Anatomy framework: Environment, Infrastructure, Built Domain, Public Space, Functions, People, Information Flows and Performance. CPS member organizations may establish a TAFT after submitting a charter to the CPS Secretariat and receiving approval of the CPTSC; at the first CPTF meeting after the submission, the chairs of the proposed TAFT will celebrate a session of Birds of Feather (BoF), being this a "means to conduct ad hoc and informal meetings, and also a useful means to gauge interest in particular topic or idea prior to the establishment of a new TAFT". CPTF individual participants are not expected to attend regularly the CPTF meetings, but to contribute to its mission, by not only engaging in the electronic exchanges on the CPTF TAFTs and TAs, but also by participating in face-to-face sessions. Generally, TAFT Chairs are those that have proposed the establishment of that specific working team; while the TAFT Chair coordinates with the relevant TA Director on a regular basis, participants in TAFTs are volunteers that do not need to report to the chair of team, leading therefore this one to promote a team culture that is progress-oriented, but informal, open and based on consensus. All the activities in the framework of the CPTF, including the TAFT ones, must be carried out in accordance with the specific Intellectual Property Rights Policy of the organization.

Furthermore, the global-scale approach of the CPS is meant to be held and complemented locally by the establishment of Local Chapters. Mindful of the importance of cities' engagement for the success and mission of the CPS initiative, these chapters should involve the participation of cities and, ideally, in leading roles. Created at the proposal of a CPS organization member, "chapters are ideal venues for individual (citizens, entrepreneurs, social leaders and activists) involvement in CPS, providing a mechanism for involvement in CPS for those without the means or availability to participate in the global organization".

The governing bodies of the City Protocol Society are the General Assembly and the Board of Directors (CPBD). The former integrates representatives from all the members of the CPS and has several duties regarding the annual fees, elections, amendments, internal operating procedures or any other motion, being all of them proposed by the CPBD. The Board directs the legal and fiduciary affairs of the CPS and, in order to secure wide representativeness of the organization's stakeholders, has as objective being composed in the following way by the 4 categories of organizational members: by at least 50% of Directors from City Governments (cities and regional bodies), at least 25% from Commercial Organizations, and with the remaining seats by Academia and/or Research Institution and by Non-Profit

Organizations; among other duties, the CPBD appoints the CPTF Chair and Chief Architect, elaborates standard intellectual property and copyright notices to include in the CPA, provides strategic inputs to the CPTF Chair and CPTSC, or prepares frames to guide common tasks such as proposing TAFTs, Local Chapters and developing CPAs. The admission of new members to CPS is based on the signature of a Membership Agreement, approval by the CPBD, and payment of an annual membership fee, whose structure is based on the four-category organizational membership and, for Cities and Regional Bodies and Commercial Organizations, classified internally as per the number of inhabitants or amount of total revenue, respectively.

Both the TAFTs and Local Chapters are designed around the establishment of a contract, defined as chapter, to work, respectively, on specific identified topics or in the development of the CPS and increased participation of its membership. Both charters integrate descriptive components, as the definition of purposes or deliverables/activities, and administrative components, such as defining Chair(s) and a Secretary, working through mailing lists and being provided with an online site in the framework of the CPS and CPTF websites. In general, both CPS and CPTF members are provided from their correspondent institutional websites with several platforms to host and increase in an organized pattern their online exchanges.

Furthermore, TAFTs are provided with non-compulsory guidelines to bring out some of the procedures, characteristics, deliverables, and knowledge-management considerations, CPS projects should take into account in its deployment in the framework of the CPTF. TAFTs should encourage the participation of member and non-member cities active in the CTPF in order to guarantee the participation of political and professional leaders and that CPS projects fulfill city needs; cities should also play a leading role by allocating resources, defining priorities and how to monitor outcomes; the 4 typologies of organizational members should co-lead projects in order to generate content within a specific topic and increase the transformational impact in the city. In order to stress the collaborative-based approach of the organization, and its differentiation from institutions that are exclusively oriented to, or based on, specific geographical regions, domains or policy-networks, CPS projects need to emphasize its cross-sector and cross-cutting, both political and professional, identity, by delivering quality-based, transformational and complex-oriented works based on the project ownership of those individuals that have demonstrated their commitment and contribution, and on a clear definition of responsibilities. In order to ensure the diffusion of CPS products to cities at world scale, the knowledge management activities of the organization, such as educative, knowledge-management and collaborative tools, should be in line with knowledge and e-learning initiatives initiated by globally-recognized institutions such as the UN or World Bank.

In this regard, the City Protocol has undertaken an important evolution in the last months by elaborating a new deliverables scheme – integrated by 7 typologies: problem statement, definition, field feedback, use case, data model, indicator, and solution description – aiming at having TAFT's work on documents moving from focusing on silos to relate to each other through a common global approach (cityprotocol, 2015).

4.2 From the creation of Internet to nowadays

The philosophy behind the establishment of the organization is clearly and synthetically captured by Manel Sanromà, current Chair of the Board of Directors of City Protocol Society: "We want to copy what has worked for the Internet for the past 40 years" (Flint, 2012). Still mindful of the evident complexity that differentiates the organization of Internet with the management of cities, CPS takes inspiration by the Internet Society's successful experience and enables an open and global space of collaboration among different yet interconnected urban stakeholders and cities, by leveraging the role Information and Communication Technologies (ICTs) play in the planning and management of urban services (Ajuntament de Barcelona, n.d.).

As Abbate (2000) describes, the genesis of Internet could count firstly on military's investments and objectives and, later on, through the academic scientists that worked in the design of the networks of the Advanced Research Project Agency of the US Department of Defense (ARPA), in a collegial and open approach to information exchange processes, opting for inclusive rather than authoritative management styles, and counting on the feedback of a diversity of committed users that helped the network architecture to be as flexible as possible. More specifically and as per how this story relates to the current object of study, one of the most important decisions taken by the Internet Engineering Task Force (IETF) - founded in 1986 to organize the technological standards for Internet and from 1993 associated to the Internet Society (ISoc), which provided a legal and financial framework for its activities - was the creation of a consistent communication model, that allowed to organize the packaging and transmission of data throughout the network to destination, by establishing the Transmission Control Protocol (TCP) and Internet Protocol (IP) (Castells, 2009).

This is, quite shortly, the successful story that lays the foundation of the CPS and that is acknowledged in the relevant organizational documents that clearly refer to the work of the IETF and its publication Request for Comments (RFC) on Internet standards, procedures and agreements when providing document guidelines about content, format, publication and availability for the CPAs (Postel, 1993; Bradner, 1996; Bradner, 1998). As the Chief Architect of CPS Vicente Guallart (2014) sums up in his book: "Internet has changed our lives but it has hasn't changed our cities, yet".

The foundational stone of CPS was laid in July 2012 with a workshop hosted by the City of Barcelona, with the support of Cisco and GDF Suez and the collaboration of over 90 institutions among cities, companies, organizations and universities (Ajuntament de Barcelona, 2012); the event counted with the participation of over 200 participants, in representation of 33 cities, 20 companies, 14 universities and 20 other organizations, that signed the Barcelona Declaration to commission an Interim Steering Committee (ISC) to lead the constitutive process of the CPS. Since then, the organization has evolved and become fully operational since 2013: it has actively participated in key events such as the Smart City Expo World Congress or Meeting of the Minds Conference; it has held a Workshop

on City Transformational Projects in March 2014 in London, an Annual Meeting in November 2014 in Amsterdam, and a CPTF Workshop in February 2015 in Dubai; it has supported the Modern Paradigm for Standards, promoted by OpenStand, a community, initiated among others by the IETF and ISoc, adhering to 5 fundamental principles in technology standards development – due process, broad consensus, transparency, balance, and openness (Lebeck, 2014a; Open Stand, 2015); it has established partnerships: with conference organizers on sustainable cities and the convergence of technology, sustainability and businesses such as Smart City Expo World Congress, Meetings of the Minds and GreenBiz VERGE, with an environmental portal, i-ambiente, on a US initiative for private sector voluntary standardization system, American National Standards Institute (ANSI), and with the Smart Cities Council, an advisor specialized in advocacy and actions on market acceleration to leverage technology and design to create smart and sustainable cities.

Legally established and with an office in the San Francisco Bay Area, California, and its Secretariat in Barcelona, the CPS has currently 13 members as city organizations, 12 members as commercial organizations, 9 members as universities and/or research institutions, and 5 members as non-profit organizations; among these, the followings are members of the Board of Directors: Amsterdam, Barcelona, Dubai, Dublin, Genova and Quito for the cities, Cisco, GDF Suez, Microsoft and Schneider Electric for the commercial organizations, Computation Institute-The University of Chicago for the universities and/or research institutions, and New York Academy of Science for the non-profit organization. In addition to the CPTF Chair, the Emeritus Chair and the CP Editor, the CP Technical Steering Committee (CPTSC) is composed of representatives from the following member organizations: the City of Barcelona as Chief Architect, the City of Amsterdam as CPTF Vice-Chair and Director of the Society Thematic Area, GDF Suez as Director of the Structure Thematic Area, and Microsoft as Director of the Interactions Thematic Area. Currently, 4 TAFTs have already been approved and are active in the elaboration of the abovementioned deliverables: Anatomy of City Habitat (ANCHA), with team leadership from the City of Barcelona and the City of Genova; Data Interoperability and City Indicators (DICI), with team leadership the city of Barcelona; Open Sensors Platforms (OSP), with team leadership the city of Barcelona; and Urban Metabolism Information System (UMIS), with team leadership the Consensus Institute and the CPS Director of Society Affairs. A 5th TAFT should be added to the list of active work teams as it its chapter has been approved during this research period: City Resilience and Security Use Cases (CRSUC).

4.3 The first CPA: City Anatomy

After an online public comment period of over one month, the first City Protocol Agreement (CPA) has been accepted on 5 February 2015: City Anatomy-A Framework to support City Governance, Evaluation and Transformed, developed by the TAFT ancha.

City Anatomy is seen as the foundation to establish the collaborative platform and tools required by cities to support three main activities in the urban realm: governance, evaluation and transformation. It is conceived as a framework that allows City Protocol to

develop protocols in benefit of its citizens: firstly, it helps cities and innovators to meet to provide and deploy, respectively, cross-sectorial solutions, providing to the former reduced risks and costs, solutions choice, learning and collaboration, while for the latter a flourishing market; secondly, it aims at increasing the interconnection among cities and, through this technological approach focused on protocols, creating the Internet of Cities.

City Anatomy is, hence, described as a common language that enhances the communication within a city and among cities by conceiving the city as an ecosystem, integrated by three system elements – "a set of physical structures (Structure); the living entities that make up a city's society (Society); and the flow of interactions between them (Interactions)" – that are, respectively, integrated by several layers the following ones, resembling partially the CP Thematic Areas (TA) previously presented: Environment, Infrastructure, Built Domain; Functions, Economy, Culture, Information; Civil Society, Government.

Beyond providing a specific approach to the city as ecosystem, City Anatomy also plays an organizing structural role within the City Protocol as it sets the common base that the TAFTs will have to relate to when developing their work, elaborating their agreements and deliverables on a specific topic that, through one of more TAs, falls into one or more of the abovementioned layers, and engaging on collaborative practices among different cities and stakeholders. At the same time, as per the universal representativeness that the framework pretends to capture, City Anatomy is conceived to be "timeless, a-cultural, scalable and generic", allowing cities, or human settlements in general, to be understood beyond any particular connotation in terms of historic time, cultural context, geographic scale and typology of settlement.

Going through the description of each of the layers that integrate the City Anatomy, a few specific considerations are worth mentioning as per our research problem. In the third layer of the Structure system, Built Domain, Objects are identified as the structure with the smallest scale – this and the forthcoming structures are ordered as per the approximate number of people that they can locate: House, Building, Block, Neighborhood, District, City, Metropolis – and its own functional identity in the global network of the Internet of Things (IoT). In the third layer of the Interactions system, Culture, the CPA recognizes the difference between tacit and explicit knowledge, when the former needs interaction, shared understanding and trust building among individuals of a community and the latter implies a crystallization of this through specific practices, skills or organizational behaviors. In the following layer, Information, the CPA, mindful of the generation and impact information flows within the cities play and the different speeds that data-based actions require, details 5 specific components to allow the information exchange through a platform in order to have performance-based information that can guide the tasks of evaluation and transformation: City Ontology, to enable the inter-operability among city components; City Operating System (City OS), to design protocols that enhance information transfer and knowledge acquisition; City Performance Indicators; Tools and Applications for data analysis; and Information Portal for learning protocols.

The CPA on City Anatomy sums up emphasizing the need to understand the interdependent relations between the systems of a city, leverage the information flows among them and "cross silos" by referring to a common language framework. As Sue Lebeck (2014b), Chair of the CPTF, says, the goal of the Internet of Cities, beyond the mere application of the IoT to cities, must be understood as a network-based concept of components working together in an holistic urban system, of cities learning together through competitive and cooperative approaches, and of city-centered groups that share an interoperable framework; the aim, the author goes one, is building a community of practice and at the same time a market driver, by establishing a constructive collaborative dialogue among cities and the private sector.

5 Research objective

The present project intends to study empirically the City Protocol Society (CPS): "a non-profit organization formed by a trusted community of cities or any regional body related to a city government, commercial organizations, academic or research institutions, and nonprofit organizations that leverages knowledge and experience in cities worldwide to accelerate city transformation, by offering curated guidance and collaborative research and development (R&D) opportunities for cities" (http://www.cityprotocol.org).

Local and regional government organizations trace back to the 20th century, and, through a variety of policy focuses and geographical scales, have had a rich and diverse historic evolution, succeeding often in the last decades to play an importance role in their respective arenas. These institutions and a brand-new generation of organizations, characterized by heterogeneity of stakeholders and interests, have recently emerged in the specific domain of policy transfer and share as common denominator the key role that local governments are to play, as target, promoters, members or clients; a quick glance to some of the most recent examples testifies the richness and diversity of these global endeavors: platforms facilitated by local government associations such as the Metropolis platform on Integrated Urban Governance and Policy Transfer, philanthropic initiatives such as the 100 Resilient Cities promoted by the Rockefeller Foundation, social enterprises such as Citymart, government-supported urban innovation centers such as Future Cities Catapult, international standards organizations such as the ISO-based World Council on City Data, and multi-stakeholders communities such as the City Protocol Society.

In light of the novelty of this phenomenon, the project has a clear exploratory purpose and, in view of the research agenda, strives to validate the feasibility of developing a more extensive and explanatory research on this same empirical case (Babbie, 2011).

The typologies of organizations previously exemplified have all as primary goal serving local governments to leverage their governance and planning practices in the benefit of their citizens. Being the City Protocol Society integrated by four typologies of stakeholders, local governments, corporations, research centers and universities and non-profit organizations, I aim at focusing on the first typology of stakeholder. As it has been discussed in the

theoretical framework, the engagement of local governments in these initiatives gears towards the policy transfer, both to learn or spread practices; hence, the specific research objective that I have, in relationship with a network such as the City Protocol Society, is exploring how local governments interact among each other in terms of policy transfer and, at the same time, with reference to the other organization's members, with stakeholders carrying a diversity of interests.

Thus, the overall research question is framed in the following terms:

How local governments learn in the City Protocol Society?

The overall query is consequently structured into 2 specific research questions:

1. Which kind of policies do local governments transfer through the City Protocol Society?

Local governments can learn a wide range of typologies of policies through a community such as City Protocol Society. It will be important to know what these actors state and which policy transfer and knowledge management mechanisms they consider essential for this cognitive process.

2. How do local governments address collaboration with each other and other actors in a community made up of stakeholders such as the City Protocol Society?

The diversity of stakeholders with different interests on a same object (i.e. the government of a city) brings a huge opportunity to innovate as it obliges to break silos and find synergies; though at the same time it requires the network organizers to pay special attention to the capacity of managing conflicting and capitalizing collaboration.

These questions are meant to contribute to respond to the overall research question. It is worth clarifying that the abovementioned specific questions could have been replaced by many other possible queries related to the research problem geared towards, for example, understanding the concrete content of the policies eventually transferred through the City Protocol Society, grasping the power relations that shape the exchange among local governments and with other stakeholders, or focusing on the local adaptation and implementation of the policies transferred through the organization. The selection of the current research questions must be first contextualized as a heuristic approach of a time-limited exploratory project, and on the basis of the theoretical-based analytical perspective, properly presented in chapter 3, that envisions learning in a network made up of cities as a process constituted simultaneously by a cognitive learning, addressed by the first question, and a political learning, addressed by the second question.

The specific research questions will be addressed by pursuing, through a simultaneous and iterative approach rather than a chronological sequence, the following research objectives:

a) Outlining the most common objects of policy transfer that take place within the collaborative platform enabled by the City Protocol Society, the City Protocol Taskforce, and the correspondent variety of objects among the different thematic work teams that integrate the City Protocol Taskforce;
b) Exploring the degrees of policy transfer that take place within the City Protocol Taskforce;
c) Detecting if this policy transfer is initiated upon the engagement of a given city in the City Protocol or it builds on a preexistent relationship and, in such case, determining if the interaction in the network has modified such practice;
d) Grasping the rationality and interest of local governments to participate in the work of the City Protocol;
e) Inquiring how the interviewed local government's representatives judge the contribution and participation of the most active local governments within the network;
f) Exploring the local government's perception on the advantages and disadvantages of participating in a policy transfer organization with several stakeholders and different interests.

6 Methodology

RESEARCH DESIGN

The present project is based on a qualitative research design (Vayreda & Ardèvol, n.d.): the case study. Creswell (2002, p. 61) states: "A case study is a problem to be studied, which will reveal an in-depth understanding of a 'case' or bounded system, which involves understanding an event, activity, process or one or more individuals".

The choice of the case study as research method is rooted on different considerations commonly associated with the suitability of this approach (Vayreda & Ardèvol, n.d.): the research unit is small enough to ensure an accurate in-depth analysis; prior to the data gathering stage, the context of the object of study has been bounded both in terms of space and time dimension and by clearly outlining which elements of the social phenomenon constitute the research problem and which do not; the research begins with a theoretical-based analytical perspective that informs the empirical work and helps to save time in data gathering and to orient the interpretation in data analysis; this theoretical-based analytical perspective can, however, potentially change as per the evidence transmitted by the empirical data; the second research question is clearly geared towards a qualitative dimension of the object of study; it provides a highly descriptive report that is, however, closely related to the social phenomenon object of study and prioritizes, thus, an idiographic interpretation, stuck to the data collection and analysis context, than a nomothetic explanation, capable to draw global generalizations from particular aspects; and the object of study is a contemporary phenomenon inserted into a real context.

As just anticipated in relationship with the bounded object of study, in line with the research purpose presented in chapter 5 and taking into account the time limitation of the project,

the study will focus solely on one of the four typologies of actors that integrate the organization, still taking into account obviously how the other three influence the research problem: local governments. This decision has clear methodological consequences as per the data gathering technique and its sampling.

Lastly, through the novelty of this specific empirical case, the current research project aims at contributing, in a discrete but tangible way, to knowledge, by improving the analysis and evidence of this the phenomenon of cities' networks formally devoted to policy transfer (Davis & Parker, 1997).

DATA GATHERING

Data gathering and analysis techniques are based on a qualitative approach too. As per the data gathering stage, semi-structured interviews have been conducted with representatives of the organization and with local government members actively participating in the City Protocol Society and City Protocol Taskforce. The semi-structured interview has been considered the most suitable data collection technique taking into account the time limitation of the project, the reduced time availability of the research participants, as well as the existence of hypothetical theoretical-based considerations on the research problem and object of study (Ardèvol & Vayreda, n.d.).

The identification of the interviewees has followed a non-probability sampling process (Babbie, 2011) initiated by locating a gatekeeper in the organization that has ensured my access to the field (Taylor & Bogdan, 1984). Bearing in mind the small size of the unit of analysis, the qualitative sampling has integrated a purposive sampling, where I have contacted selected interviewees within the City Protocol Society and City Protocol Taskforce as per my previous knowledge on their organizational function and possible time availability (Babbie, 2011), and, once trust was built, asking the gatekeeper to kindly inform the further representatives of the local governments active in the organization that I could interview.

DATA ANALYSIS

The interviews' raw data have been submitted to content analysis with AtlasTI as computer-aided qualitative data analysis system (CAQDAS): transcripts have been codified in order to identify and isolate specific textual elements that are consequently related to each other to elaborate the main concepts of the empirical framework (Andréu, 2001); this codification has been guided by a mixed strategy: both inductively – identifying in the social interaction concepts' properties and dimensions that appear more relevant – and deductively – applying pre-established properties and dimensions to the social interaction (Andréu, 2001; Ruíz Olabuénaga, 2012).

It should be also clarified that both the purposive sampling in the data gathering as well as the deductive strategy in the data analysis have been possible thanks to an exhaustive review of the online documents issued by and on the object of study, as well as by the

possibility to carry on observation, although in a non-participant way, in some of the meetings held by the organization.

7 Results of the empirical study

Prior to the presentation of the results of the empirical study, a brief introduction to the organization is provided to allow a better understanding of the content exposed by the interviewees. In this regard, a deeper contextualization on the organization object of study has been provided in the fourth chapter by presenting a review of the organizational and communication documents.

The results of the empirical study presented hereafter are based on the content analysis of 3 face-to-face semi-structured interviews - that lasted 25, 30 and 40 minutes respectively - and 5 interviews by email – whose script is presented in the Annex 1. All the research participants are representatives of local governments that are actively participating in several work teams, defined as Task-and-Finish-Teams (TAFTs), of the City Protocol Taskforce (CPTF) and, in certain cases, also in the City Protocol Society (CPS).

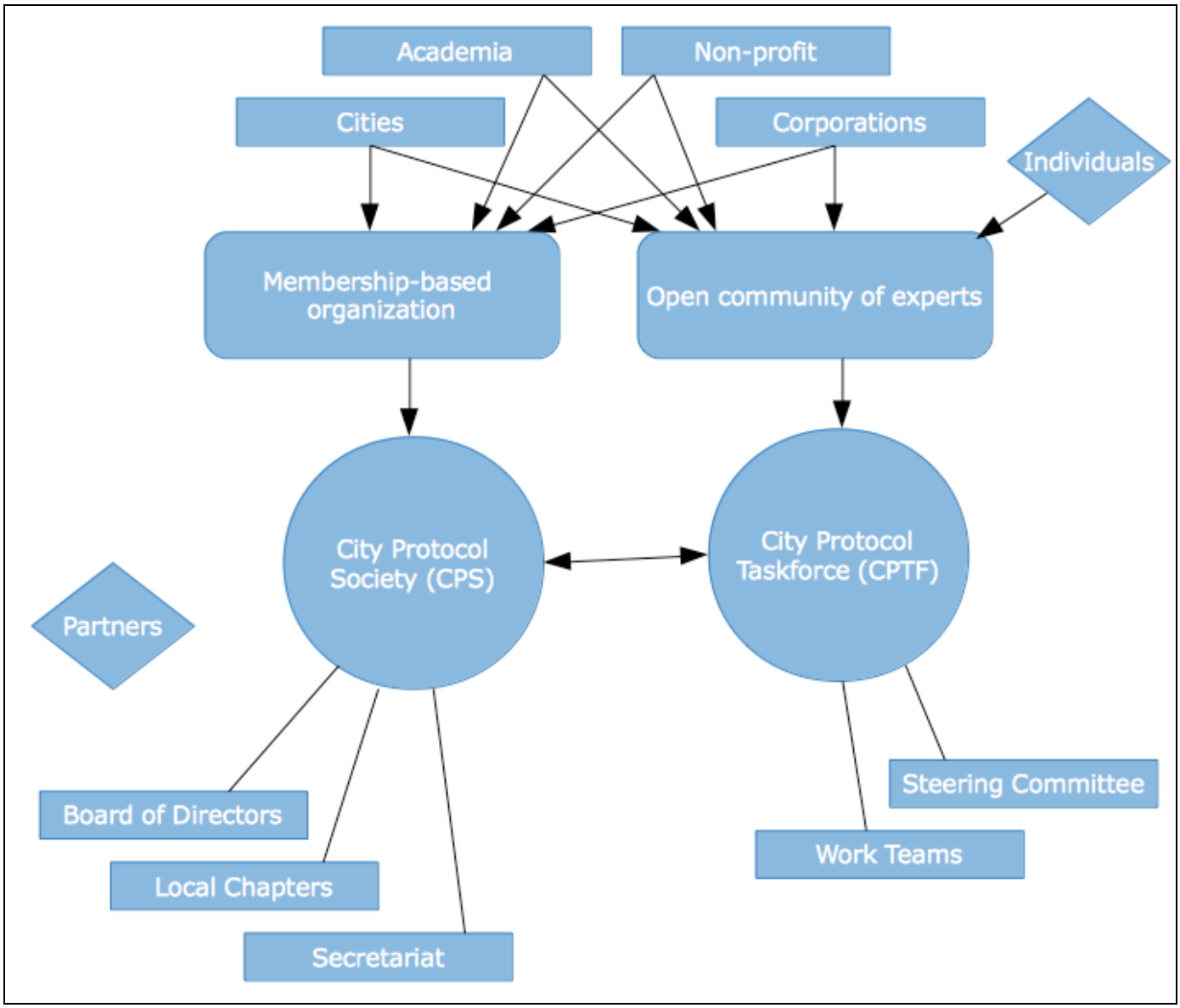
7.1 At a glance introduction to the organization

The present brief introduction is based on online public information on the websites of City Protocol Society (http://www.cityprotocol.org) and City Protocol Task Force (http://www.cptf.cityprotocol.org).

The City Protocol Society is a "nonprofit membership-based association of cities, corporations, research and nonprofits that aims at fostering an open community devoted to creating the 'Internet of Cities'. The Internet of Cities will provide common solutions and solution platforms, crossing the silos within and between cities, and building a more self-sufficient future".

Having its foundational stone in a workshop hosted by the City of Barcelona in 2012, the City Protocol Society is nowadays a fully-established organization that is constantly growing and leveraging its impact. The next graphics aim at introducing to this reality by firstly presenting the institutional architecture of the City Protocol and then the membership list of the City Protocol Society, taking into account that this list might have already changed as it refers to the information publicly available on May 2015.

Graphic 2 ***Organizational architecture of the City Protocol at a glance***
Personal elaboration. Source: City Protocol website



Graphic 3 ***City Protocol Society membership list by chronological order and type***
Personal elaboration. Source: City Protocol website

Cities	Corporations	Academia	Non-profit organizations
Amsterdam	Abertis Telecom Terrestre	Cardus	Consensus Institute Inc.
Barcelona	Aigues de Barcelona	Computation Institute – The University of Chicago	Ecocity Builders
Béziers	Bism@art	FUNITEC La Salle	New York Academy of Sciences

Cities	Corporations	Academia	Non-profit organizations
Charlotte	Cast-info	Global Cities Institute – University of Toronto	TICE.PT
Dubai	CISCO	IESE Business School	Turkiye Bilism Vakfi
Dublin	CityZenith	Institute for Advanced Architecture of Catalonia (IAAC)	
Gaziantep	GDF Suez	IUT Béziers	
Genova	Microsoft	Universitat Autonoma de Barcelona	
Moscow	OptiCitis	Universitat Rovira i Virgili	
Oviedo	Ingeniería Urbana		
Quito	Schneider Electric		
Sant Feliu de Llobregat	Turkcell		
Vilanova i la Geltrù	Yachay EP		

7.2 Results of the case study

This section aims at addressing the research objectives by analyzing the content of the conducted interviews.

Connecting with the justification provided in the fifth chapter on methodologies regarding the choice on data gathering technique, the semi-structured interviews have allowed me to optimize the usage of the little time available to get as close as possible to the research question framed within this project. As such, I have analyzed the organizational and communication documents of the organization, presented in the fourth chapter, and, simultaneously and iteratively, the first interviews conducted face-to-face in Barcelona in order to outline some preliminary considerations to guide my forthcoming interviews by email with local governments' representatives actively participating in the TAFTs.

Prior to delving into the results of the empirical work, a last methodological point needs to be made on the interviews by email. After having the gatekeeper informing the several local governments' representatives active in the TAFTs of the CPTF about my research project, I have personally contacted each of them kindly asking to respond to an interview by email: 15 contacts, in representation of 11 cities and throughout the 5 different active TAFTs that integrate the CPTF, have received my request, having 5 contacts from 5 different cities responding to the full interview. The identity and contact details of the 15 local governments' representatives have been extracted by the documents on the TAFTs publicly available on the CPTF website.

Building on the 6 research objectives detailed in the fourth chapter, the content analysis of the interviewees is organized around themes that partially liaise with the research objectives and at the same time emerge from both the empirical data and its dialogue with the theoretical framework presented in the third chapter.

7.2.1 Objects of policy transfer and variety within the work teams

A wide range of objects of policy transfer is exchanged through the CPTF. They vary according to the different TAFTs that integrate the CPTF, but at the same also as per the interpretation and importance research participants attach to them. This heterogeneity clearly accounts for the richness of the learning experiences facilitated by the City Protocol. It can be argued, however, that some actors clearly conceive the importance of exchanging policy visions and ideas, while other prioritize learning on tangible policy instruments and experiences above any other transfer.

Several definitions are rendered by the research participants regarding the objects of policy transfer that take place within the relations engendered by the TAFTs of the CPTF: instruments, practices, technologies, solutions, objectives, lessons and contents. This heterogeneity of definitions does not clearly refer to just one object of policy transfer seen through different conceptualizations, bur rather to a myriad of exchanges that take place among the cities and other actors of the CPTF.

The objects of policy transfer that are exchanged through the CPTF clearly vary due to the wide range of scopes addressed by the work teams facilitated within the TAFTs. In a nutshell, the specific foci of the work teams can be summarized as such:

- Anatomy of City Habitat (ANCHA), who has already completed its mandate and issued the first City Protocol Agreement, sets the organizational framework for the organization, its deliverables and coordination among different TAFTs, by agreeing on a common understanding of the city, its systemic components and flows;
- Data Interoperability and City Indicators (DICI), building on the framework of the City Anatomy Agreement, agrees and sets indicators, protocols and standards that allow to measure, share and analyze data on and among cities;
- Urban Metabolism Information System (UMIS) aims at elaborating protocols to manage information on the flows identified within the City Anatomy Agreement and testing them, for consequent feedback, in pilot cities;
- Open Sensors Platform (OSP) agrees and defines a model to collect and respond to data on cities through sensors, thus contributing to the Information subsystem identified within the City Anatomy Agreement, by testing a concrete tool in cities with advanced ICT infrastructures and reporting back on the lessons learnt;
- City Resilience and Security Use Cases (CRSUC), whose charter has been approved while working on this research project, aims at identifying city cases on resilience, safety and security in cities and align them according to the structure outlined in the City Anatomy.

There is not a clear division among the exchange of objects of policy transfer such as instruments, practices and objectives. Other interviewees, on the contrary, do see a differentiation and recognize the importance of building among cities common policy visions, while other clearly prioritize the relevance of sharing real experiences and the ways leading to concrete decisions taken on specific topics over discussing on common concerns with unavoidable different political perspectives.

Resonating with this last consideration, policy objectives are determined by needs at local level as, taking into account the current stage of the TAFT's work, "instruments are developed along the way…according to the needs"[1].

As mentioned earlier, objects of policy transfer clearly vary within the CPTF according to the mission of each TAFT. A clear example of practical approach phrased in the previous paragraph is the work being done in the OSP around the deploy among different cities of a common tool – the open sensors' platform Sentilo – and the consequent opportunity this provides to share different, although related, experiences around a same instrument. On the contrary and rather focusing on exchanging policy visions, the DICI work team is not interested in the implementation of a concrete solution, but, building on the work already carried out within the ISO certification, on agreeing, defining and extending the set of indicators that cities themselves conceive to measure urban variables. This endeavor, similar to the one that has culminated in the deliverable elaborated by the ANCHA work team, City Anatomy, is not geared towards a concrete learning process, but rather aims at shaping, among different actors, a common approach that can benefit the communication process on the city and among cities.

7.2.2 Degrees of policy transfer

Despite the City Protocol is an actor of policy transfer that pays particular attention to the contribution enabled by the exchange of best practices, the majority of research participants call, in this regard, to remind the importance of local translation and prefer highlighting the relevance of inspiration as degree of policy transfer.

Recognizing that, solely in the case of exchange of a concrete technological tool, it can be argued that a direct copying in policy transfer takes place, many interviewees stress the importance to pay special attention to the local adaptation and translation of best practices from somewhere else; the specificity of real needs at local level is such that a same project among different cities can yield ultimately a local solution that, studied in global terms, is actually different.

There is a clear recognition of the inspirational power that policy transfer and exchange relations taking place within the City Protocol can yield. An interviewee, reflecting on the importance to bear in mind the different situations that cities face in political, financial,

[1] The quotations from the interviewees that appear throughout section 7.2 are translated to English when required.

demographic and geographical terms and thinking on the effects resulting from the exchanges' relations, emphasizes "in that way we hope that other cities are less afraid to start projects of just reconsider projects".

However, from the perspective of a growing city, global benchmarking and best practices play a different and transcendent role, as a city officer states that their "strategy is therefore to deploy solutions and policies that exist elsewhere, while creating local adaptations when required".

7.2.3 Development of city-to-city relationships within the City Protocol

All the interviewed cities have established collaboration relationships with other cities prior to the engagement in the City Protocol. The perspectives portrayed on this regard are mainly complementary to each other: city-to-city relationships can be strengthened, overlay an already existing platform, help to evolve from a competitive- to a collaborative-based and more profound way of interacting, constitute a source of legitimization, or even emerge around a concrete theme precisely as a consequence of joining the organization. This diversity of characterizations is related to the added value the given city attaches to both the City Protocol and the global role it plays as cities' network, as per its regional, national or international scale.

In the case of existing ties related to a geographical proximity, such relationships have not changed due to the City Protocol, but are strengthened and have greater tangibility thanks to the emergence of concrete actions, while recognizing that this coordination of activities had been ensured so far by another thematic network; similarly, it is also said that, while the existing relationships have also been strengthened, new ones, thanks to the City Protocol's framework, have been established and are fruitful.

In a different scale, observing the many relationships developed with several cities in the past few years, sometimes through a EU-grant procedure, and its characterization as temporary strategic alliance around a specific topic, City Protocol can provide a deeper and more holistic collaboration that, rather than focusing on solutions, aims at the core of cities, enabling less competition and an environment that is more open to share information. In the same vein, another officer declares that "by joining the City Protocol it has engendered a sort of peer-to-peer legitimization".

Lastly, a city, despite being engaged with several cities around several topics, has started to address the themes dealt within the correspondent TAFT only after joining the City Protocol's work. Building on this case, it might be argued that, regardless of the specific object of policy transfer that is afterwards exchanged, City Protocol also provides the opportunity for certain cities to address new policy-making fronts on urban governance and development.

7.2.4 Interest to participate in the City Protocol

Reasons to participate in the City Protocol account for a variety of motivations. It should be first noted that, due to the clear different mandate of both bodies, joining the City Protocol Society implies a different contribution and role with respect to joining the City Protocol Taskforce; however the contribution of cities needs to be contextualized on the consideration that, still being devoted to either governance or operational dimensions respectively, the City Protocol Society and City Protocol Taskforce are mutually dependent.

Furthermore, and resonating with results already encountered through the study, local governments envision two co-existing degrees of impact of the organization: sharing and learning with regard to the smart city initiatives and in collaboration with different stakeholders, and striving to shape both a common collaborative-based understanding among cities and more profound comparative exchange.

For an interviewee, the possibility to share experiences around the deploy of a concrete tool - as it is the case of Sentilo - is sufficient reason for participating in the City Protocol, even more when already having experience on sharing knowledge and tools with other cities and cities' networks, and collaborating, among other actors, with the private sector.

Another representative, whose city is member of the City Protocol Taskforce (CPTF), but not of the City Protocol Society (CPS), envisions these two bodies as characterized by two different yet complementary missions, being the former more operational and the latter more executive-oriented or institutional. Along the same lines, the CPS is seen as the body where affiliated members decide the governance model of the organization, while the CPTF, "that has its own life", is open to everyone, to members' representatives and individuals, without the requirement of paying a membership fee, and hosts a collaborative platform.

Still confirming this view, an additional dimension is introduced on this regard: the CPS and CPTF need to grow side by side and their development is mutually dependent. The City Protocol is firmly interested in "not being a highly bureaucratic organization with a strong membership base and little concrete activities taking place", and, for this reason, its Taskforce is conceived as the main reason for members to join as "it engenders a place where agreements, knowledge exchange and networking take place and are produced". At the same time, however, still being a non-profit association that reinvests the profit from membership fees in the organization and depends, to carry on the workload, on voluntary contributions from network's individuals, the City Protocol needs its Society to grow in order to ensure the financial sustainability of the organization, as the development and coordination of the Taskforce do require fixed costs that need to be covered.

The interest to participate in the City Protocol accounts for a broad understanding of the joint work cities need to deploy. On one level, cities are interested in both learning and sharing experiences in light of the current convergence where cities, companies and universities tackle common issues related to the smart city. In a deeper level - somehow

connecting with what exposed about the degree of policy transfer as inspirational power, the object of policy transfer as ideas and visions that shape a common understanding among cities, and the emergence of city relationships that are less competitive-oriented – the cities are engaged in City Protocol mindful of the urgency to put in motion a new way of interaction, where cities are no longer isolated and rather participate in a profound comparative exchange in order not to compete but to collaborate and learn from each other. Similarly, it is stressed the importance of joining the foundational effort geared towards the establishment of the City Protocol and contributing to it by offering the uniqueness and complexity of the social fabric and specific dynamics of one's city.

Lastly, it is also remarked that, "although the participation in a work team is individual and on a voluntary base, there is always an institution that supports you and is interested in your participation in this work team, should it be for your knowledge or in order to reach an agreement around that topic with other cities".

7.2.5 Involvement of the most active cities within the City Protocol

Following the analysis of the communication and organizational documents, non-participant observation in some meetings of the organization, and the first semi-structured interviews, I have alleged that a few cities, referring as examples to Barcelona, Amsterdam and Dubai, are currently playing an outstanding role in the initial stage of the organization to promote and develop the City Protocol, asking to the interviewees how they understand this aspect and if they envision further cities playing a similar role to push the organization's collective mission. Among the several considerations that have brought me to this statement, I could quickly mention: the number of TAFTs currently co-chaired by Barcelona, the number of TAFTs where Amsterdam and Dubai are members, the leading role played by Barcelona and Amsterdam in the Presidency, Board of Directors, Steering Committee and Taskforce, and the contribution provided by Dubai, Amsterdam and Barcelona in hosting recent key events (see fourth chapter for further details).

The responses provided to this item portray quite a remarkable diversity of perspectives. Certain actors acknowledge a balanced and decentralized structure, stress the key contribution provided by a plurality of cities in the establishment of the initiative, and trust this diversity will increase in the nearly future in terms of leadership. Conversely, other cities account for differentiated roles within the organization and portray a different scenario in terms of opportunities.

As the organization's management is geographically located between Barcelona and California and both the Steering Committee and Board of Directors are integrated by representatives proceeding from different cities and institutions active in the platform, it is stressed how the organization's leadership is interested in a real decentralizing effort. On the contrary, the City of Barcelona is seen as a member that is undertaking a management cost that is higher than the one covered by the other network's members, but that this might, however, benefit the role the Catalan capital city is playing within a wider context; in the

same vein, it is not envisaged that further cities will play such an outstanding role in promoting the organization's collective mission.

Clearly against this last perspective, it is remarked how several cities have clearly contributed to the foundational process of the organization, are deeply committed and trust further cities already play a key role and will certainly do in the future in the framework of the local/regional chapters (see fourth chapter for further details on this body).

Bringing an additional dimension to this item, a research participant, thinking from his/her personal perspective, considers that "medium-sized cities should be heard to a greater extent in order to ensure long-term outcomes". On this same aspect, specific big cities are seen as members that carry on the effort to promote City Protocol as it responds to their mission, providing medium- and small-sized cities with geographical proximity to a big active city with the opportunity to join the initiative, still mindful of the existence of other networks and communities that can benefit these small- and medium-sized cities.

7.2.6 Integration of different stakeholders within a same community

The integration of stakeholders with different interests and added values is one of the key components of the City Protocol's mission. This specificity is materialized through the agreement, definition, development and circulation of frameworks, standards and protocols that put in place and enable the communication flows among such heterogeneity of different stakeholders and cities.

This process is, however, characterized by the coexistence of different, and sometimes even conflicting, perspectives on the same social reality. The essence of this diversity of opinions relates to the different ways the translation of interests is interpreted particularly with reference to the relationship both among key outstanding cities and other active local governments, and between the public and private sector. On one side, public-private collaboration is indispensable, the integration of different stakeholders enables innovation, and commercial interests are not necessarily channeled exclusively through the City Protocol. On the other side, not all the private actors contribute in the same transparent way, small players have little floor to contribute, and City Protocol projects should be defined building on the needs of a "critical mass" of cities and not according to the interests of other actors.

As per the most critical dimension of the relationship among the public and private sector, the City Protocol has a clear policy on the way to address it. It does not interfere among the business agreements reached among local governments and companies, yet it watches over the working process to gather as much knowledge as possible on the availability of solutions, and in global terms, knowledge, available within the community, and present it in "an agnostic way".

As an interviewee states, the added value, and complexity, of the organization lies in enabling a meeting place "among actors that are interdependent, but that often do not talk to each other and whose communication is not as smoothly as it should". As channeled through the elaboration of the City Anatomy, the first step taken within this communicational endeavor has consisted in the elaboration of "a reference framework where we all talk the same language".

According to another city officer, being the city an ecosystem that does not refer solely to its local government and is integrated by the variety of actors that live in it, this organizational mission implies a constant effort to attract as many urban stakeholders as possible in order to have an unbiased perspective on the dynamics taking place in the city.

This effort is clearly portrayed in the way TAFTs' work on deliverables is approached. As these documents, in order to be as practical-oriented as possible, might refer to experiences around the usage of a concrete tool, offered by a company that might be actively participating in the same work team, their editing process welcomes references to these products and services, as well as in general terms to all the knowledge hosted by the community on that specific topic. This consideration is reinforced by the fact that, being the City Protocol Taskforce an open community, any party has the chance to join the network and present its work: the academia and NGOs also provide key contributions, competing companies can join the same TAFT, and companies, academia and NGOs can also lead TAFTs. In this context, the City Protocol watches over the editing process to ensure that, whenever possible, the deliverable need to present as many products and services, and in general terms experiences and insights, as possible in the same agreement; in the case of the OSP TAFT, for example, the work team has been requested during the editing process to search for additional implementation solutions, beyond the already-mentioned Sentilo, and should not other tools be located, clearly mention this searching process in the deliverable.

Conceiving the interaction among public and private sector evolving from a consumer-vendor relationship to a partnership, enabling a meeting place among public and private actors implies that special attention needs to be paid to recall that the City Protocol does not interfere with any eventual business agreement signed between a given city and a given company, as this relates solely to the interests, strategy, legal requirements, negotiation process and internal implementation decisions of both the local government and enterprise. As an interviewee states regarding the deliverable editing process and the way this is cautiously taken, the main interest of the City Protocol lies in collecting, systematizing and sharing as much knowledge as possible in "an agnostic way" in order to secure the validity of their studies.

In this sense, the case of Sentilo is explanatory. Among other aspects, this tool has been selected in light of its open-source software license, which responds to both an internal business strategy of the producing company and at the same time reduces the local governments' dependency on a given technology fixed product, as it provides the city with the possibility, still in partnership with the company, to adapt with flexibility the tool, should

new needs, that use to change continuously in urban management in the medium- and long-term, emerge. As an interviewed city officer clarifies, this relationship between the local government and company might have been totally different, pursued other objectives and develop towards other implementation solutions; resonating with this, another interviewee declares that Sentilo is just one of the many available tools to develop sensors' platforms.

Even acknowledging having a long-lasting collaboration experience with the private sector, it is stated that "not all the private actors contribute to the overall interest in the same way and there is not enough transparency and balance of interests to ensure an optimal development of the organization", as actors play their role to varying degrees and the most powerful actors drag the interests and opportunities of the small players, who, instead, have little floor to take decisions and contribute.

According to another city officer, "participating in such a global project, and with the costs this implies, can only be possible through public-private collaboration" and the involvement of all the stakeholders is essential to ensure that the innovation process, although with a pre-established focus, is permeable to ideas and knowledge from different sources, laying, thus, the foundations for new products, services and approaches to come out.

Two further interviewees fully agree on the importance of gathering stakeholders. The first one thinks that each actor has his/her own special role within the projects and that, as sometimes solutions can be found within the stakeholders group due to commercial interests, while other times they might emerge from actors that are not members of the City Protocol. The other interviewee reasons that, while there might be conflicts of priorities, the stakeholders can only gain from this collaboration and this is essential to contribute to city development as each party brings its unique advantages: the real-life governance experience of local governments, the innovation and competitive drive of companies, the in-depth capacity to explore themes of universities and research centers, and the special focus brought by non-profit organizations.

In a different light, real advantages with reference to the integration of stakeholders with different interests are seen not to depend on the number or variety of existing actors, but rather emerge when "the dialogue is inspired by sincere respect and will to learn from the difficulties encountered by the other".

Lastly, another city officer, contextualizing the current early stages of the City Protocol, thinks that synergies with the private sector and other stakeholders are truly promising if this work is grounded in the real needs of cities and not the other way round, according, for example, to the commercial interest of a given private sector representative that aims at placing his/her product; to guarantee that, "cities need to be fully involved in the definition of the needs to be addressed as this is the main driver of any project", and at the same time count on a "critical mass of cities that actively contributes to this process".

7.2.7 Lessons on wrong practices, and synergies

After presenting the empirical results as per the research objectives detailed in the fourth chapter, I consider appropriate to introduce an additional conceptual relationship identified throughout the interviews, as I deem it could help to advance in the effort geared towards responding to the research question.

The learning process clearly appears as a two-directions dynamic, it depends on the capacity to systematize existing knowledge and requires face-to-face exchanges. The most valuable aspect of sharing and learning from best practices stems from studying what went wrong in one's respective experience. This modality of transfer is however leveraged when associated to, or even superseded by, an even more tangible typology of exchange: the identification of synergies among different stakeholders, and particularly cities, around a specific and concrete project.

A city representative clearly says that his/her city is specially interested, further to best practices, in "lessons learned on why some projects failed or how we would have done things differently". This consideration obviously connects with the inspirational power the policy transfer enabled by the City Protocol yields, but also to the building of that collaborative-based common approach among cities phrased earlier as example of a policy transfer interested also in exchanging ideas and visions.

Many research participants think that during the learning process one is often both sharing and receiving knowledge at the same time. In this sense, by reflecting on the exchanges on different experiences around the deploy of a same tool, Sentilo, it is pointed out how in a first moment a city provides to another city its knowledge about the tool, while in a second moment when the latter decides to test that tool at home, the recipient city provides knowledge to the former, as it is highly likely that the second city has used that same tool in different ways or to different fields, providing thus the opportunity for the first donor city to continue learning. Interestingly, these exchanges are often strengthened, particularly in their early stage, when face-to-face meetings take place, providing the opportunity to exchange the highest possible amount of information and building trust among officers.

More precisely, when several cities deploy the same tool and make the same mistakes, all this information needs to be gathered and systematized in order to generate knowledge to be used later on by further eventual cities with the same objective and, thus, avoiding making again that same mistake. On this regard, an interviewee says from his/her personal perspective that, rather than always meeting to share how successfully we dealt with a given topic, we should also focus on "wrong practices", although recognizing that this knowledge exchange modality might be more complex to handle.

Reflecting on how both successful practices and mistakes need to be borne in mind has brought me to understand the contribution that an organization such as City Protocol can ensure to avoid the common error of reinventing the wheel, by systematizing existing

knowledge, in order not to lose information, store and re-use it later on. This consideration is further reinforced by the fact that, not only the recipient is benefitted, but also the donor, taking into account that, as another interviewee notes, when you share your knowledge you are provided with the opportunity to assess your own situation.

The widely recognized importance by the research participants of sharing best practices has, however, been marked by a rectification that, through different extents, I have noticed in more than one interview.

A city officer claims that best practices yield positive outcomes only as exportable conceptual models, as, in concrete operational terms, it's highly likely that cities work in different ways; in this regard, he/she ironizes that cities' networks mainly focused on best practices sometimes provide mainly a meeting place of peers that, "as in a therapeutic session, listen to each other and accompany each other", while what is truly needed is generating synergies where, when several cities notice, beyond their contextual difference, having a same objective, all these cities put in place and share resources around a common project, to be deployed locally in different cities, in order to learn from each other and avoid duplicating efforts.

Partially resonating with this perspective, two city officers think that City Protocol aims at this specific kind of exchange as it provides the opportunity to go beyond the traditional fact-finding trips and one-time delegations visiting one city towards a more stable, profound and long-term collaboration around a specific interest and project. One more time, this approach is deeply related to the mission to foster a collaborative-based common approach among cities.

8 Discussion

After presenting the empirical study, it is possible to build on its results and extract some considerations by liaising the empirical study with the theoretical framework developed in the third chapter.

In a nutshell, the articulation of conceptual frameworks proceeding from different literature domains, policy transfer and knowledge management respectively, to approach analytically the City Protocol has proved suitable and, even more interestingly, shed light on different theoretical convergences.

The City Protocol Taskforce (CPTF) constitutes the meeting place of the different urban stakeholders and cities that constitute the community engendered by the City Protocol. As such, it has been argued that the City Protocol is an example, within the international relations and political science literature, of the professional and policy network identified in section 3.4 by Stone (2012) as a non-state actor playing a crucial role in policy transfer processes. At the same time, connecting with the discourse framed in section 3.6, it has also been argued that the City Protocol is an example, within the organizational theory and

strategic management literatures, of a knowledge network as depicted by Pugh & Prusak (2013). These two theoretical approaches have been deployed jointly building upon the consideration, portrayed in section 3.5, of Benz & Fürst (2002) on the necessity to conceptualize learning as being integrated simultaneously by political learning, therefore closer to the theoretical apparatus of Stone (2012), and cognitive learning, therefore closer to the theoretical apparatus of Pugh & Prusak (2013).

As per the knowledge management's perspective, the City Protocol clearly responds to the 4 typologies of outcomes Pugh & Prusak (2013) present for knowledge networks: it provides coordination of knowledge activities, learning/innovation, local translation/adaptation and support to individual members. Furthermore, the TAFTs can be conceived as an application of the conceptualization introduced by Grant (1996) on problems-solving complex teams, while the importance of trust building (Pugh & Prusak, 2013), creating a common language (Nonaka, Toyama & Konno, 2000), and making knowledge accessible to avoid reinventing the wheel (Davenport & Prusak, 1998) are also confirmed by the results of the empirical study.

As per the policy transfer's perspective, the City Protocol is, as conceptualized by Stone (2012), a professional and policy network that promotes best practices, shapes common approaches and is characterized by the co-existence of different agendas at the same time. Furthermore, the organization is active in circulating a range of different several objects of policy transfer: instruments, experiences, objectives, and visions (Dolowitz & Marsh, 2000; Stone, 2012).

An additional consideration is worth mentioning as per the approach to the object of study. As explained in the fourth chapter and textually reflected in the organizational and communication document, the Task-and-Finish-Teams (TAFTs) are the centers that engender the activity of the CPTF. It has therefore been argued that the learning contribution of a network such as the City Protocol for local governments implies exploring the internal dynamics of the TAFTs that integrate the CPTF. TAFTs, presented also by the City Protocol's website as "work teams", constitute the space to encounter other cities and stakeholders and work jointly towards the definition of a given deliverable. The presentation in the fourth chapter of the City Anatomy served, hence, the purpose not only to describe the first agreement produced by the City Protocol, but also to provide a contextual information as all the work of the TAFTs is conceived to relate to the City Anatomy as its organizing framework as well as to other TAFTs' deliverables. The empirical study and its different stages have brought me to understand that TAFTs can represent quite a wide and diverse reality in terms of policy transfer practices, actors involved and missions. This heterogeneity of perspectives and experiences should further be studied in order to identify additional patterns of relationships and convergent trends that can help to better grasp this cities' network.

As it will be outlined in the tenth chapter, this project is constrained by several theoretical and methodological limitations. I consider that a further research on City Protocol, and

eventually other cities' networks devoted to the same mission and characterized by a mechanism of knowledge exchange, could benefit analytically by engaging in closer terms with the literature on the smart city, in both a constructive and critical way, and the theoretical framework of the urban policy mobility. Such endeavor might be leveraged by the deploy of qualitative methodologies such as critical discourse analysis, for example when engaging with the concept of smart city, or in-depth interview and participant observation to observe the circulation of the policies enacted throughout the City Protocol. In this regard, I think that these last two qualitative methods could yield particular interesting results to focus analytically on the local translation of the protocols and standards agreed and elaborated by the City Protocol in several specific cities active in the network, as a heuristic tool to grasp how this initiative concretely pursues the objectives and practices framed within the smart city.

There are, however, additional observations that I would like to share as I think they could further help to liaise this exploratory study with the research agenda.

The empirical study has provided a wide range of different results with regard to two different research objectives. Research participants have shared diverse, and sometimes even conflicting, perspectives regarding the role played by certain big cities, in comparison to other local governments also active in the City Protocol, with reference to the promotion and development of the organization's mission and work. Similarly, the collaboration with different stakeholders and particularly with the private sector is deemed in quite different ways among the interviewed local government officers.

Being the relevance of the smart city concept, both as internal policy and component of an international strategy of a city, and the key role specific companies are called to play within this domain, I think that addressing the heterogeneity and integration of different actors with different interests on a same object, the city, throughout a platform that aims at crossing silos, can clearly yield interesting results. In this regard, theoretical frameworks focused on, for example, networks and power relations (Castells, 2009), translation of interests and creation of socio-technical networks (Callon, 1986), knowledge creation (Nonaka & Takeuchi, 1995), and leadership in social networks (Cross & Thomas, 2009), can provide constructive analytical approaches.

9 Conclusion

The conceptual articulation of the theoretical frameworks on policy transfer and knowledge management as a heuristic way to understand the learning processes has provided a suitable analytical approach for the City Protocol. Complementary perspectives on the smart city and urban policy mobility can also, however, provide the opportunity to approach the object of study in fruitful, yet different, ways.

Conceptualizing the City Protocol as both a non-state actor of policy transfer and knowledge network has allowed to shed light on the growing integration of different actors and

correspondent interests that takes place in the city and among cities through dedicated networks, the correspondent importance public-private collaboration is gaining, and particularly with reference to technology-based initiatives such as the smart city. This approach has further highlighted the relevance acquired by learning processes, and how these can be constituted by the coexistence of different endeavors, such as the exchange of experiences around concrete policy instruments or the shaping of a more complex common understanding among cities that lays on, and at the same time gears towards, the definition of a set of policy visions and ideas. All these observations need to be contextualized in the framework of a social reality that can only be grasped by paying attention to the existing dynamics related to the translation of interests.

Lastly, I sincerely consider that my study has not been able to fully respond to the overall research question and its 2 specific research questions. More precisely, and still bearing in mind the exploratory purpose of the study, despite having successfully achieved the 6 research objectives, I argue that epistemologically an object of study such as the City Protocol can only be grasped if the perspectives of the different stakeholders that integrate the platform, and not only of the local governments, are properly taken into account in the empirical study.

10 Limitations of the study

After discussing the results of the empirical study and presenting the concluding remarks, it is necessary to expose the limitations of this study both from a theoretical and methodological point of view.

THEORETICAL LIMITATIONS

This project has embraced policy transfer as key component, jointly with knowledge management, of the theoretical framework. As stated in the third chapter, the traditional policy transfer literature has, however, showed certain prevalence for a formal national state-centered approach to the detriment of a perspective that can shed light on the changing reality of policy transfer, and its emerging heterogeneity of practices carried out by non-state actors. As the City Protocol is a clear example of non-state actor playing a role in policy transfer, I have decided to embrace this theoretical framework from the work of Stone (2004; 2008; 2012) as one of the authors that has most significantly reviewed the traditional policy transfer literature and explored the emergence of non-state actors in this domain.

It should be remarked, however, that there is a theoretical framework from the geographical perspective that also reviews the traditional approach of policy transfer literature but, in this case within the urban realm, additionally proposes an alternative analytical lens: urban policy mobility (see McCann, 2011; McCann & Ward, 2013; Peck & Theodore, 2010). In short, this approach stresses that policies' transfers are not fixed contents, that they rather

change, and at the same time shape, as they travel across the world, and are socially constructed, being closely related to institutional contexts, policy communities and networks, and power relations (McCann, 2011). From this perspective, for instance, Peck & Theodore (2010, p. 170), by clearly referring to the example of the "Barcelona model", address the concept of policy models, highlighting how they need as much a "demand-side" audience of cities, that want to emulate a specific policy innovation, as a "supply" of cities that are interested in building on their success by promoting credible, fashioned, pragmatic, and representative policies, while in reality are clearly context-specific and differ from the institutional and political contextual specificities of the "demand-side" city. It is, in short, a perspective that engages in a critical dialogue with its object of study and can shed light on the power-laden dynamics that often sustain the policy transfer relations among cities.

This theoretical-based perspective has not been embraced for two different reasons. Following the thinking of McCann (2011), I have considered that the policy mobility lens can yield interesting insights when sustained methodologically also by ethnographic observation, as a way to approach simultaneously the places where policy transfer takes place as research sites (e.g. the coffee break of an international conference of a community of policy actors) and the relation among these sites; due to the time-bound process of the current thesis project, I have therefore discarded this methodological approach and consequently its theoretical-based analysis. There is, however, a second more subtle reason behind the choice of policy transfer as theoretical framework for the analysis. Being an exploratory research and on a concrete object of study that has so far received little attention within the academic production, I have deemed more appropriate to focus on a limited unit of analysis, the CPTF and its TAFTs, and, in order to do so, to pay special attention to a limited number of dimensions – the objects of transfer and the relationships within different cities and stakeholders in the framework of a non-state professional and policy network – that are actually properly addressed within the most updated policy transfer literature and, at the same time, present a high degree of synergy with the conceptual apparatus on knowledge management deployed to inform the analytical work.

A second theoretical limitation of the study refers to the lack of depth when addressing the concept of the smart city. Such constraint relates both to a constructive and critical engagement with this specific approach to urban governance and development. Both analytical endeavors have been discarded both in light of the tight time limitation of the research project and the suitability instead of focusing on an exploratory work that can better inform future explanatory and in-depth studies.

Not only, as quickly seen in the second chapter on the state of the art, technology is the crucial factor that can leverage the transformational impact of smart city initiatives (Chourabi et al., 2012); furthermore, as Caragliu et al. (2011) claim through their operational definition, smart city initiatives can bring sustainable economic development, higher quality of life and natural resources' efficient management by combining, through participatory governance, investments in human and social capital, and ITC and transport infrastructures, recalling the need raised by Malecki (2002) to address simultaneously the

urban assets of hard and soft networks, integrated respectively by digital and physical infrastructures, and people. Taking into account that both technology and the human and social capital intertwined to that deeply inform the practices, instruments and objectives promoted within the TAFTs' work, and at the same time that the CPTF enhances the integration of, and communication among, diverse urban stakeholders, deploying such an analytical lens would certainly benefit to understand the local impact that participating in a professional and policy network such as the City Protocol implies.

Complementarily, and not necessarily in conflict with the analytical focus phrased above, my project could have engaged in a more critical way with the object of study. On one side, Hollands (2008) states that smart city initiatives can often be closer to corporate interests than to the social, environmental and cultural needs of the related citizens, resonating with the claim of Söderström et al. (2014) on the corporate-based discursive essence of the concept of the smart city; on the other, March & Ribera-Fumaz (2014) address, among other aspects, the concept of "self-sufficient city" - deployed by the Chief Architect of both the City of Barcelona and City Protocol Society and crucial in the thinking of the organizational framework of the platform, City Anatomy, presented in the fourth chapter – and how the City of Barcelona has decided to become an international benchmark reference for smart city initiatives. My study could have, thus, assembled these literature references to investigate how the interests of both the smart city companies and the City of Barcelona, both remarkably active in the organization, are translated in both the open community of experts and membership-based organization that the City Protocol Society and City Protocol Taskforce respectively engender.

METHODOLOGICAL LIMITATIONS

Lastly, a third main limitation applies to the methodological constraints of my data gathering sampling. Should the research period be longer and my access to the field more grounded, I could have had a higher level of responsiveness within the requests of interview by email, counting, hence, on a wider spectrum of subjective perspectives on the object of study. Similarly, although I think to a lesser extent, I could have conducted further face-to-face interviews and focused more on observation work in meetings of the organization should that be feasible.

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12 Annex 1 – Script of the interview by email

- When interacting with other local governments through the Task-and-Finish-Teams (TAFTs), would you say that you are receiving and sharing knowledge at the same time? Or one is more preponderant than the other?

- In case of receiving knowledge from other cities, do you think it is more a matter of replicating somewhere else's best practice or of getting inspired by some other city and developing a totally different policy in your local context?

- According to your experience, what is the main object of exchange among cities: Concrete instruments? Practices on a specific issue? Or goals that afterwards can result in a myriad of different instruments and practices to achieve that goal?

- Through the TAFT or several TAFTs you are currently participating, you are probably exchanging with several cities on specific themes. Before joining the City Protocol, were you already collaborating with these cities on the same themes? If that's the case, do you think these interactions have now changed as they take place through City Protocol? And if yes, how?

- What is your interest in participating in the CPTF? In case you are also member of the CPS, what is the interest of your city in joining the CPS?

- Certain local governments, such as, for example, the city of Barcelona, Amsterdam or Dubai, are currently playing a crucial role to promote and develop the City Protocol in this initial stage of the organization. Do you think further local governments will, or already do, play such a role and push collectively the organization's mission? And if yes, how?

- The City Protocol has a clear groundbreaking innovative component as it gathers stakeholders with different interests such as local governments, private sector, academia and non-profit organizations. Which advantages do you see in terms of collaboration among actors with different interests? And which disadvantages do you see in terms of conflicts among stakeholders with different interests?

- The interview is over. Should you want to add any comment that comes to your mind and that you do not see reflected in the previous items, please feel free to do so.

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