



# Exploring the strategic communication of the sharing city project through frame analysis: The case of Barcelona sharing city

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## ABSTRACT

The term 'sharing' has become popularized in academic and practitioner circles. Recently, the concept of the sharing city has emerged. However, there is no homogenous global discourse about the sharing city. This could lead to very diverse interpretations of what the sharing city is and how it should be implemented. This study explores how the sharing city project is understood and strategically communicated by the municipality of Barcelona. A frame analysis of 67 documents published in the Barcelona City Council website during 2015–2018 has been used. Additionally, documents about strategies, plans and public policies related with Barcelona Sharing City were taken into account. Municipality's initiatives in relation to the sharing city spread across eleven areas including education, housing, entrepreneurship among others. Using the prognostic, diagnostic and motivational framings, it is found that the municipality aims i) to promote the sharing city as the combination of a top-down approach and citizen participation, ii) to constitute the notion of sharing as an opportunity for the city's future iii) to generate trust towards the local administration presenting it as an agent for the city's change. Also, the notion of sharing and sharing economy are explored in the case of Barcelona sharing city.

## 1. Introduction

Modern cities face various problems of social inequality, affordable housing, traffic difficulties, environmental pollution, among others (Khan & Zaman, 2018; Marchetti et al., 2019). These pathologies invite for changes in city planning and policies (Khan & Zaman, 2018). For instance, the increasingly popular concept of smart cities largely focused on introducing cutting-edge technology in city infrastructures to achieve more efficient and sustainable territories. However, smart cities' overarching focus on a techno-centric understanding of the city, led different authors to argue that the city should be thought not only in terms of efficient management, but also in social and human terms (Muñoz & Cohen, 2016). For many city theorists, the city should be understood as a shared space for all citizens emphasizing the human interaction that takes place and the social capital generated (Agyeman et al., 2013; Calzada & Cobo, 2015; Humet, 2017; Khan & Zaman, 2018). In fact, in a previous critique of the smart city, Calzada and Cobo (2015) argue that the aspects of human interaction, citizenship and community have been ignored in the smart city notion, but are at the forefront of the sharing city concept.

In any case, both city labels, the widely popularized 'smart city' and

the relatively more recent 'sharing city', have quickly become a *leitmotif* in discourse on urban planning and management (Crivello, 2015). These labels aim to represent best practices, but there is no homogeneous global discourse about what these labels mean and into what city practices they should be converted (Joss et al., 2019). In the case of smart cities, the absence of a broadly common framing template led to cities proclaiming themselves as 'smart' evidencing a process of 'smartwashing' (Desdemoustier, Crutzen, & Giffinger, 2019; Hollands, 2008). Also, the smart city project has been appropriated by different actors, companies for instance (Desdemoustier, Crutzen, Cools, & Teller, 2019; Söderström et al., 2014). The same problem could emerge for the far less theorized notion of the sharing city.

The need to further study the sharing city concept is timely especially since public administrations have taken an interest in this concept (see, for instance, [www.sharingcities.eu](http://www.sharingcities.eu)) and international sharing city networks have started to appear (e.g. [www.sharingcitiesalliance.com](http://www.sharingcitiesalliance.com)). Also, local governments are important actors in current debates regarding the sharing economy given that the locus of action of sharing economy is largely urban (Vidal & Fuster, 2018; Vith et al., 2019). Municipalities can adopt different roles either by monitoring and regulating the activity of sharing economy platforms or by actively

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participating, promoting and launching sharing initiatives. However, besides some notable exceptions (see Vith et al., 2019 for example), we still lack an in-depth understanding of how sharing and the sharing economy is interpreted by local governments, how such interpretations affect their governance strategy and finally how the government communicates their ‘sharing-related’ governance strategy to the general public.

Cities around the world like Seoul, Milan, Malmö or Amsterdam have already taken on the sharing city project and have designed policies in that respect (Bernardi & Diamantini, 2018). Other cities are in a process of doing exactly that. An example is Barcelona which is the case of study in this paper. Barcelona constitutes an interesting case study for various reasons. First, in Barcelona there is a strong presence of sharing economy platforms (Berrone et al., 2016; Fuster, 2018) and some rapidly growing platforms were founded and have their headquarters in the city (see examples of Glovo, Social Car and Wallapop). Second, the Municipality of Barcelona (MoB from now on) has acted in certain cases as a promoter of the sharing economy (McLaren & Agyeman, 2015), as various sharing economy projects have received their funding from the MoB (Fuster & Espelt, 2019; La Vanguardia, 2018). Third, the latest local government has shown interest in the sharing city project through the participation in international networks such as Sharing Cities Action, the co-signing of the Declaration of principles and commitments of collaborative cities during the 2018 Sharing Cities Summit that took place in Barcelona and the organization of sharing economy events such as the Oui Share Fest for three consecutive years (2015, 2016, 2017). Fourth, the case of Barcelona confirms previous research regarding the potential negative backlash of sharing economy platforms: evading regulations and breaking the law, unfair competition to existing players, labour exploitation, rising housing prices, gentrification inter alia (Martin, 2016; Scholz, 2017; Schor, 2016). The activity of sharing economy platforms has a real impact on cities, so local governments, such as the MoB, often have to take a stand on possible conflicts. For example, as Barcelona is one of the cities that receive most tourists annually [9,09 million in 2019 (Master Card Report, 2019; Observatori del Turisme a Barcelona, 2019)], any debate about the sharing economy is “tied to debates about the negative consequences of tourism” in the city (EU Sharing and Caring COST Action, 2018, p. 57). Recent conflicts in Barcelona involved residents’ protests against Airbnb and the clash of taxi drivers with ride-sharing platforms. All these indicate that the MoB has already acted as monitor, regulator and promoter of the sharing economy in line with its own interpretation and positioning towards sharing and the sharing economy.

Thus, the main research aim of this paper is to explore how the sharing city project is understood, framed and strategically communicated by the municipal administration. Naturally, this involves a prior interpretation and positioning of the municipality with regards the notions of sharing and the sharing economy, which are also explored here. In order to achieve this research aim, we analyzed the 67 news items, press releases and reports, published in the Barcelona City Council website over a four-year period (2015–2018). The timeframe was defined by data availability as the first document found was published in 2015. The analysis was carried out using a frame analysis perspective, previously widely used in the study of social movements (Harlow, 2011; Vicari, 2010) but also in studies of places and communities (Martin, 2003). Frame analysis is based on three frames; the diagnostic, prognostic and motivational framing (Snow & Benford, 1988). We chose to use frame analysis because it permits to see what is “hidden and highlighted” in discourse with the intention to evoke certain interpretations (Vogel, 2012). On one hand, our findings show how the municipal administration of Barcelona understands the sharing city project, e.g. the span of activities and policies, which areas are emphasized or the nexus of the sharing city project with the notion of sharing and the sharing economy. On the other hand, our findings reveal that the sharing city is strategically presented by the municipality as an opportunity, good practice and citizen empowerment. We conclude that the strategic

communication of the sharing city project aims to legitimize both the actions of the MoB and the MoB itself, while responsabilizing citizens for the project’s success.

The article is organized as follows: first, a contrast is made between the smart city and the sharing city in order to be able to position and conceptually define the notion of the sharing city. This distinction is important so as not to generate further confusion between these two labels, due to their conceptual proximity (McLaren & Agyeman, 2015). Also, the role of municipalities in the implementation of these urban projects is discussed. Methodological aspects are then clarified concerning the data collection and analysis. Next, findings are presented along the three framing tasks. Finally, the main conclusions are drawn and a discussion is provided.

## 2. Literature review

Both the notions of smart city and sharing city have been used to represent best practices and city regeneration projects. Nonetheless, we lack a homogeneous global discourse about what these labels mean and into what city practices they should be converted (Joss et al., 2019). Also, in light of the absence of a broadly common framing template or a specific list of procedures/criteria to award the smart or sharing city status, many cities proclaim themselves as ‘smart’ or ‘sharing’ (Desdemoustier, Crutzen, Cools, & Teller, 2019; Hollands, 2008). This may create a bifurcation between the ideal notion of an efficient, high-tech smart city or of a humanised, empowering sharing city and the reality (Hollands, 2008).

Furthermore, the conceptual distinction among the smart city and the sharing city remains unclear. This largely happens because both concepts overlap in some areas (see Table 1). In fact, Bernardi and Diamantini (2018) claim that the sharing city is a derivative of the smart city.

In this section, both concepts are presented and their similarities and differences are highlighted (see Table 1). It is important to clearly delineate them conceptually since each of them represents a distinct field of action for institutions and citizens. In other words, both concepts have performative functions. Söderström et al. (2014, p. 308) explain nicely these implications when they argue that “smart cities, like creative cities, sustainable cities or livable cities are part of contemporary language games around urban management and development. These games involve experts, marketing specialists, consultants, corporations, city officials etc. and frame how cities are understood, conceptualized and planned. [...] shape the imaginaries and practices of a myriad of actors concretely building the city through particular case studies or pilot projects, decisions and everyday action, like creating a new electricity system for a neighborhood.”

For Snow, Døjbak, & Obel (2016, p. 92), a smart city “can be understood as a community in which citizens, business firms, knowledge institutions, and municipal agencies collaborate with one another to achieve systems integration and efficiency, citizen engagement, and a continually improving quality of life”. Ahvenniemi et al. (2017) stress that, in addition to sustainability and quality of life, technology is the greatest differential aspect to guide the structure of a smart city. For example, several authors explain that smart cities use specialized technologies and big data analysis to achieve effective management of the city, but also to tackle problems related to mobility, energy efficiency or housing in an urban environment (Ahvenniemi et al., 2017; Allam & Dhunny, 2019; Fernández-Añez et al., 2018; Maalsen, 2019). These are in line with the sustainable development goals, thus allowing a reduction in costs and the management of resources while promoting environmental awareness (Sikora-Fernández, 2018; Zvolška et al., 2019).

Govers (2018) claims that another characteristic of smart cities is precisely how they rethink the role of the citizen as an active promoter of change, becoming a permanent player in the place-making process thanks to a “collaborative spirit”. In a similar line, Snow et al. (2016, p. 102) have argued that “... organizing a smart city initiative requires

**Table 1**

Main characteristics of smart and sharing cities.

Characteristics	Smart cities	Sharing cities	Commonalities
Social change	Boosting links through information technology.	Boosting environments that promote social links and collaboration.	Active participation of citizens
Citizen empowerment	This model visualizes the user as an intelligent citizen who adapts to the strategies.	The value of the community is redefined as co-creative power. Commons guide the individual and collective efforts.	Citizen is central in the change process.
Technological innovation	Technology is operationally the basis of interaction and transformation processes.	Technology complements the processes of interaction and transformation	Technological platforms mediate change and boost the new paradigm. They facilitate results measurement.
Urban intervention	Renewal of existing infrastructure and proactive attitude for the future.	Regeneration and reactivation through placemaking and participatory urbanism. Open innovation.	Space and all its dimensions are used for communication and social innovation.
Environmental impact	Sustainability is the path towards the improvement of the city and its preparation for future challenges.	Holistic understanding of the city in ecological terms. Importance of environmental education.	The new urban models guarantee the quality of natural landscapes and new constructions.

Source: authors' own elaboration.

consensus about its overall philosophy as well as the broad organizing principles that support the philosophy". Govers (2018) and Snow et al. (2016) talk about citizen engagement suggesting that the establishment of communities and local networks is one of the major challenges for the attainment of the smart city project. In most cases, collaboration and cooperation becomes possible through the use of technological platforms (Almirall et al., 2017). Nevertheless, other authors criticize the smart city notion for being too technocratic, for evangelizing digitalisation while ignoring human interaction, social capital and the role of citizenship in the implementation of the smart city (Calzada & Cobo, 2015; Vanolo, 2016; Yigitcanlar et al., 2018). Vanolo (2016, p. 35) for instance concludes that "what seems to lack in utopian imaginaries of the smart city is the idea of citizens' empowerment, and precisely the idea that smart cities will be also sort of huge agora in which every citizen will have the possibility of having a voice".

The sharing city is another, more recent city label that has emerged to conceptualize an ideal city (Khan & Zaman, 2018). As Table 1 shows, the smart and sharing city share commonalities (Ahvenniemi et al., 2017; McLaren & Agyeman, 2015; Snow et al., 2016). To name a few, they share fundamentals such as improving quality of life and promoting an efficient use of resources whereas sustainability is a concern in both (Dril et al., 2016; Khan & Zaman, 2018). Technology is present in the sharing city project, but its use aims to facilitate social purposes, while it is not as prominent and central as in the smart city notion. So, while the sharing city is also described as efficient and innovative enjoying technological infrastructures, it clearly places much more focus on the human dimension of the city, on co-creation, participation and social justice, or else a human-centric focus that the smart city project lacked (Bernardi & Diamantini, 2018; McLaren & Agyeman, 2015).

For Agyeman et al. (2013) the sharing city is ideally an urban project where shared interests become prioritized, novel forms of sharing are enabled and promoted, and the city is seen as a shared space for all citizens. Furthermore, the sharing city is presented as an alternative to the increasing privatization and commercialization of public space (Gabriel, 2013). So, another aspect of sharing cities projects is how the space is shaped to serve shared interests. They seek to take advantage of what already exists and recover unused areas, in order to achieve urban regeneration (Franqueira, 2010). Moreover, in sharing cities, according to the World Economic Forum (2017), collaboration among people facilitates trust and increases social inclusion. Sharing, in its different expressions, aims to consolidate the sense of community. Building from the definition of Belk (2010, p. 717) the idea of sharing in sharing cities is of a "communal act that links us to other people" creating feelings of bonding and solidarity. Different initiatives that take place in cities, e.g. sharing food and/or kitchen appliances, sharing a transport vehicle, participating in timebanks or sharing the workspace may generate social capital particularly when there is human interaction involved (Chan & Zhang, 2018). Another interesting aspect of sharing cities, as proposed by Agyeman et al. (2013), is its focus on citizen empowerment and

participation. As a revival of the ancient greek polis, the sharing city could ideally foster citizens' collaboration and active engagement for the issues of concern for the city encouraging values such as equality, democracy, solidarity and ethics.

Some authors (e.g. Agyeman et al., 2013; Longhurst et al., 2016) present empirical cases where the implementation of the sharing city embraces new modes of economic exchange dynamics organized around peer-to-peer principles. Sustainability is sought through the promotion of technological platforms and other networks that enable access versus ownership and the reuse, recycling and redistribution of products (Longhurst et al., 2016).

But while in some empirical cases of sharing city projects partnerships with sharing economy platforms are involved, like Portland and Airbnb in 2014, others cities approach with caution or even oppose to certain corporate sharing economy platforms (Bernardi & Diamantini, 2018; Chan & Zhang, 2018). Thus, one of the main differences among sharing city projects around the world is how the urban project is positioned regarding the notion of sharing and the sharing economy. Previously, Martin (2016) identified both positive and negative framings of the sharing economy: as an economic opportunity, as a path towards sustainability, as a field for incoherent innovation and as part of the neoliberal model that creates unregulated marketplaces. Other authors have openly criticized that the concepts of sharing and the sharing economy have been conflated and misleading (Eckhardt & Bardhi, 2016; John, 2013; Skågeby, 2015). For example, Skågeby (2015) argues that the notion of sharing has been co-opted by the sharing economy and that sharing in the sharing economy is often no more than a business model disguised "under the guise of collective resource sharing" when it is basically a "short-term individualist money-exchange". Similarly, for Belk (2014) much of the contemporary sharing economy is pseudosharing. He explains that sharing platforms differ in terms of the reciprocity expected from users, their ethos, logic and orientation. So, whereas the open learning platform studied by Carfagna (2018) and the timebanks in Papaoikonomou and Valor (2016) are governed by an ethos of communalism, cooperativism or even activism, Zipcar offers mainly economic benefits, rather than social (Bardhi & Eckhardt, 2012). As a result, Eckhardt and Bardhi (2016) propose that many of the so-called 'sharing economy' platforms should be instead called access-based platforms. Certainly, the overuse of the word sharing has not been coincidental, as it holds "positive connotations of equality, selflessness and giving" in the sense of "sharing and caring" (John, 2013, p. 176). To all that, we should add the potential negative backlash of sharing economy platforms on cities and its residents, e.g. unfair competition to existing players, labour exploitation, rising housing prices, gentrification inter alia (Martin, 2016; Scholz, 2017; Schor, 2016). For instance, the phenomenon of Airbnb-induced gentrification and the loss of rental housing have already been raised as concerns for cities (Wachsmuth & Weisler, 2018).

Although, the sharing that takes place in the city goes far beyond the

corporate sharing economy, e.g. shared use of infrastructures, services and environmental resources with the emergence of cooperatives, transport schemes based on sharing, community gardens, etc. (Agyeman et al., 2013; Chan & Zhang, 2018; Cohen & Muñoz, 2016), the implementation of the sharing city project requires municipalities to adopt certain positioning with regards sharing economy platforms. First, because as aforementioned, the activity of sharing platforms has real effects on cities and may create conflicts. Second, because if ideally the sharing city aims for human interaction and citizen empowerment and participation, then some sharing economy platforms may fulfill, or not, these purposes as previous empirical evidence shows. For instance, for Arvidsson (2019, p. 13) sharing platforms may even “de-socialize practices of sharing”.

Finally, the way the sharing city project is implemented varies. Previous empirical evidence shows both bottom-up and top-down approaches of sharing city projects. Examples of the bottom-up approach can be found in Belgrade and Berlin with initiatives such as the Urban Hub (Belgrade) and Urban Hacking (Berlin) aiming to improve the common public space and to allow citizens to “share sociability...to share relaxation... to share information” (Krasny, 2019, p. 132). In the specific case of Berlin, local administrations have placed little interest in pursuing a sharing city project (Zvolska et al., 2019). In other bottom-up initiatives, the local government enables and supports them, but they are still initiated and carried out by the local community. For example, Share Sydney is a collective for sharing in Sydney that created *The Sharing Map*, an interactive tool to connect with others, participate and use technologies for urban commons ([www.thesharingmap.com](http://www.thesharingmap.com); Santala & McGuirk, 2019). Through this tool, communities can locate resources e.g. bikes, co-working spaces, community kitchens, community gardens, transport, etc. In other cases the role of the government is much stronger, e.g. in Copenhagen and Seoul, as local governments embrace sharing in their city planning. For instance, the Resident’s Participatory Budgeting System in Seoul allows citizens to decide democratically which projects should be funded (Bernardi & Diamantini, 2018; McLaren & Agyeman, 2015). Also, Seoul’s local government promotes collaborative economy and social entrepreneurship projects, and finances sharing networks. Local governments can create a productive and participatory environment for its inhabitants, its governing authorities, investors etc. (McLaren & Agyeman, 2015) holding a leading role or a supportive role by enabling a bottom-up initiatives.

In any case, even if citizens can create sharing projects without any government intervention, often citizens’ active engagement in the decision making regarding the city’s problems implies that the local government would allow this to happen. For example, local governments are the ones in charge of drafting and executing public budgets. Even if citizens want to participate in this process, they are not able to, unless allowed. In the end, the sharing city project could be a combination of top-down and bottom-up approaches (Camboim et al., 2019). This means that the role of municipalities is critical in the implementation of these urban projects (Desdemoustier, Crutzen, & Giffinger, 2019). Municipalities can act as enablers, active supporters, monitors and regulators (Vidal & Fuster, 2018; Vith et al., 2019). Their role and their posture depends on their interpretation of sharing, the sharing economy and the sharing city. Furthermore, it is worth remembering that the smart city or the sharing city are also types of city branding (Hollands, 2008). The management of the city brand and the administration of official messages tend to be centralized in local governments or institutions linked to them with the aim of positioning the city as an attractive destination (Andersson & James, 2018). In other words, municipalities may decide on communication strategies to achieve differentiation and claim superiority imbuing the city with positive meanings (Johansson, 2012). Also, municipalities execute and facilitate conceptual, strategic and operational aspects of city branding. The type of city branding chosen by municipalities allows to “train the spot light on particular priority urban planning issues, offering ways to deal with them effectively” (Khan & Zaman, 2018, p. 223). After all, the city brand

perception has an indirect impact on the municipalities’ image. In other words, city brands may become reputational assets for municipalities (Noguera, 2012).

Previous literature lacks a clear understanding first, about how municipalities define sharing and the sharing economy and second, about how the sharing city project is strategically communicated by them. This precisely calls for further research in order to delve deeper into the ‘sharing’ vision of city management and to understand the initiatives (the hows and whats) that articulate the sharing city project.

### 3. Methodology

#### 3.1. Data gathering and analysis

This study focused on documents found in the Barcelona City Council website ([www.barcelona.cat](http://www.barcelona.cat)). All data was publicly available. To limit the search only to documents related to the sharing city project, the following keywords were used: “sharing city”, “sharing cities”, “collaborative city”, “collaborative cities” in Catalan, Spanish and English (the languages used on the council website). The first article posted dated in 2015, so a timeframe of four years was established (2015–2018). The final sample was made up of 67 thematic units (Krippendorff, 2019) which consists of news items, press releases and reports (see Appendix).

First, all documents were downloaded. All of them were read at least once prior to their analysis. Also, other documents, not included in the final data set of analysis, were looked up in order to gain a more holistic understanding of the city governance approach. These were:

- Barcelona Municipal Action Plan (PAM)
- Programme to promote urban green infrastructure
- Barcelona green and biodiversity plan 2012–2020 (Cat)
- +Sustainable Barcelona map (video)
- Plan to promote the social and solidarity-based economy 2016–2019
- Plan to promote high-quality youth employment
- Citizen Participation Regulation
- Social Contract of *Decidim*
- The participative democracy platform in Barcelona (promotional material)
- Adolescence and youth plan 2017–2021

Although, some useful insights were gained, some of these documents offer technical information for a more specialized audience.

Once the documents read, different Nvivo codes were created to represent all the areas which the MoB linked to the sharing city project. The classifications provided by Shareable (2018) and Arnold (2017) served as an inspiration for the final themes generated. For instance, Shareable (2018) (<https://www.shareable.net/>) talks about eleven categories including food, work, energy, water, technology, finance, governance etc. Arnold (2017) also mentions money, communities, item sharing and bottom-up movements. Table 2 presents a full list of the 11 thematic categories identified through an inductive process (Colyar & Holley, 2010). This means that the themes were not preestablished even though other classifications were used as inspiration. Given that coding here was inductive, if new codes were identified in the data then they were added.

It is also worth mentioning that once all documents were read multiple times and a number of codes were created (e.g. food, employment etc.) then we proceeded to quantify them, e.g. how many times the sharing city project was linked to food or transport. This permitted to see where the MoB placed more emphasis and which areas emerged as central for the sharing city project according to the MoB. Most documents were found in the category *Institutional participatory processes* ( $n=17$ ) followed by Strategic Innovation and New Technologies ( $n=13$ ). Table 2 provides further information regarding each of the thematic categories, e.g., what each category means in our coding process, examples and number of documents found per category. Afterwards, the



**Table 2**  
Thematic categories and frames.

Thematic category	Contents	Examples	Total news found	Framing
Education	Trends, educational innovation, education for collaborative culture	1- Subsidies for socially oriented educational projects by the City Council; 2- Pedagogical program for digital and 3D production in the classrooms.	9	Prognostic, motivational
Strategic innovation and new technologies	Platform economics, smart application development, device development	1- Smart City App Hack Contest; 2- Technologies for a networked democracy, with an intermunicipal approach.	13	Diagnostic, prognostic, motivational
Entrepreneurship	Business initiatives, social entrepreneurship, business models in collaborative economy	1- Contests and provision of services in the Office of Attention to Companies (OAE); 2- Training programs and workshops for Social Economy and Solidarity initiatives.	4	Prognostic
Institutional participatory processes	Regulatory and administrative frameworks, design of public policies and strategic implementation, new models of governance	1- New participatory processes by platform decidim.barcelona; 2- Participation of Barcelona in the C.I.T.I.E.S (International Center of Innovation and Knowledge Transfer of the Social and Solidarity Economy); 3- Forum Procommons.	17	Diagnostic, prognostic, motivational
Housing	Management and development of housing, co-housing, alternative housing models	1- Construction of 110 apartments in 5 municipal plots according to the cohousing formula; 2- “Homes that make our city” day. Presentation of housing policies of the City Council, dignification of neighborhoods.	9	Diagnostic, prognostic, motivational
Employment	Job creation, collaborative work models	1- Events to promote youth entrepreneurship e.g. Saló de l’Ocupació Juvenil.	3	Diagnostic, prognostic
Community development	Community empowerment and neighborhoods, formation of social groups	1- Barcelona, refuge city. Convert young people into political actors in the city; 2- Presentation of the Neighbourhood Plan in neighborhoods; 3- Diagnosis and proposals on uses and shared areas of the Plaza de Ferrán Reyes, by the neighbors.	7	Prognostic, motivational
Food	Food management, urban agriculture, distribution and food programs	1- Participation of local food markets in the Barcelona International Community Day; 2- Contest of green roofs (orchards of self-supply).	1	Motivational
Urban planning and the environment	Regeneration of public spaces, habitat and sustainable urban development	1- Redevelopment projects of the District of Sarrià - Sant Gervasi; 2- Program to Promote the Urban Green Infrastructure; 3- Revitalization of the delta del Llobregat.	11	Diagnostic, prognostic, motivational
Transport	Shared transport, management and urban mobility	1- “Thinking Cities” Award for the use of mobile applications to obtain cycling data; 2- Mobility Week at the Fàbrica del Sol.	2	Prognostic
Art and creativity	Intervention of space, practices and activism through art.	1- Tribute to Albert Musons; 2- Installation of a giant margarita in the Castillo de Montjic, by Phillip Stanton.	3	Motivational

Source: authors’ own elaboration.

frame analysis method was used to further analyze the documents. Goffman (1974, p. 21) introduced the term frames and defined them as “schemata of interpretation”. There are multiple definitions of frames, but the following are particular useful. For Entman (1993, p. 52) frames are those aspects that become salient in communication in order to place the attention on specific problems and their “causal interpretation, moral evaluation and/or treatment and recommendation”. Jones (2018) claims that frames allow to obtain details, to understand the social sense which can be given to certain information, and to construct perceptions and arguments. Moreover, Lakoff (2010) further emphasizes the intentionality of framing arguing that frames constitute linguistic constructions that present issues in a certain way and that manage to influence attitudes and opinions towards these issues. In other words, frame analysis places the attention on how language is used by social actors that aim to mobilize, convince, raise visibility, etc. about specific issues. In epistemological terms, frame analysis emerges from discourse theory and is based upon social constructivism (Fletcher, 2009). Social constructionism rejects universal truths and begins with the premise that there is no pre-existing reality, instead individuals invent structures (Guba & Lincoln, 1989). Also, meanings are created through the use of language (Easterby-Smith et al., 2012). In framing analysis and discourse theory, discourse is neither apolitical nor neutral (Fletcher, 2009).

For that reason, framing has been widely used in social movements (Benford & Snow, 2000) and policy making (Fletcher, 2009; van Hulst & Yanow, 2016). Framing aims to motivate, to persuade, to discourage, to attract and to mobilize other actors (Laamanen et al., 2015). Snow and Benford (1988) have provided a categorization of three frames that was later used in different fields (Baldy, 2019; Jones, 2018; Martin, 2003):

- Diagnostic frame: in which problems are detected, identified and defined.
- Prognostic frame: here solutions are offered to these problems.
- Motivational frame: which provides the rationale for taking action to address the problem.

We are employing the same categorization in order to understand how the sharing city project is framed by the municipality of Barcelona in terms of problems and solutions. The three frames, diagnostic, prognostic and motivational, were not imposed on the data, but instead they were used as lenses to explore the data. We presented our findings/codes along these three core framing tasks. In most cases, documents fitted with more than one frames. In fact, in ten out of eleven categories more than one frame is identified, and in four all three frames (see Table 3).

Certainly, frame analysis is not the only framework that could have been used in the present study. Previously, Vith et al. (2019) used comparative qualitative analysis to compare public documents of different sharing cities. Also, Wittmayer et al. (2019) used narrative analysis to study past, present and futures ‘narratives of change’ for social transformation (including sharing) and their performative function.

We chose to use frame analysis because it permits to see what is “hidden and highlighted” in discourse with the intention to evoke certain interpretations (Vogel, 2012). Benford & Snow have explained “prognostic framing activity typically includes refutation of the logic or efficacy of solutions advocated by opponents as well as a rationale for its own remedies.” (2000, p. 617). This, on one hand, emphasizes the potential of action and agency to solve the problem (Benford & Snow, 2000), but also it legitimizes the suggested path of action and the actor that suggest it. While frame analysis has been widely used in social

**Table 3**  
Framing strategies and examples from dataset.

Frames	Examples	Category
Diagnostic: current situation	The first green map of the city of Barcelona (...) was already made in a participatory way, throughout the years 1997 and 1998 and was published in paper format in 1999 by the council. The Barcelona + Sustainable map has taken its essence and adapted it to the new technologies that exist today. <i>A map to rediscover the city (20.01.2017):</i> <a href="https://www.barcelona.cat/infobarcelona/es/un-mapa-para-redescubiertir-la-ciudad.455390.html">https://www.barcelona.cat/infobarcelona/es/un-mapa-para-redescubiertir-la-ciudad.455390.html</a>	Strategic innovation and new technologies
Prognostic: responding to a need	Where can we find stores in Barcelona with a section of organic or local products? Where can we find electric vehicle charging points? These and many other questions related to socio-environmental issues are answered in the new Interactive Barcelona + Sustainable Map (B + S). <i>A map of the sustainable initiatives of the city is born (18.04.2014):</i> <a href="https://www.barcelona.cat/infobarcelona/es/my-new-post-5203_60268.html">https://www.barcelona.cat/infobarcelona/es/my-new-post-5203_60268.html</a>	Institutional participatory processes; Strategic innovation and new technologies
Motivational: invitation to collaborate and participate	It is an interactive map, made in a collaborative way among citizens, companies, entities and administration, which aims to promote the sustainability of the city and strengthen and energize the citizen network of Barcelona. We invite you to participate in it! "The more companies and entities join and want to collaborate with the map, the more we will advance in the culture of sustainability in Barcelona" (...) The initiatives included in the map are selected through citizen participation processes and have to meet the following basic principles: sustainability, co-responsibility, equity, inclusion, innovation, transparency and proximity. <i>A map of the sustainable initiatives of the city is born (18.04.2014)</i> <a href="https://www.barcelona.cat/infobarcelona/es/my-new-post-5203_60268.html">https://www.barcelona.cat/infobarcelona/es/my-new-post-5203_60268.html</a>	

Source: authors' own elaboration.

movements literature, we argue that its use should be further considered to study public discourse because it shows how public discourse aims to convince people of certain solutions to diagnosed problems while prompting them to act in favour of certain policies instead of others (Vogel, 2012). Also, "framing the problem is a fundamental aspect of policymaking" (Baldy, 2019, p. 6). Recent research on the sharing

economy has employed framing to understand how the sharing economy has been conceptualized in news media discourse (see Leung et al., 2019; Yuana et al., 2019) and in academic research (Martin, 2016). However, we lack research with regards how the sharing city project is framed, and thus understood, by municipalities. First, the diversity of frames could reveal the municipality's particular vision on what constitutes a sharing city. Second, the triple framing allows exploring what this actor (municipality) seeks to achieve at the strategic communication level.

### 3.2. The context: Barcelona in crisis

In recent years, Barcelona has been facing problems of different nature, from the reduction of public budget, rising insecurity, pollution, high vehicle density and inefficient lack of resources and spaces (Russo & Scarnato, 2018; Winslow & Mont, 2019). Barcelona, as the rest of Spain, was hardly hit by the 2007 financial crisis registering until the present among the highest unemployment rates in the EU. Some of the main alleged principles of the sharing economy such as the efficient use of underutilized assets, the transition towards sustainability or the financial benefits for users (Vaughan & Daverio, 2016) could potentially present an interesting alternative for the city and its residents. In the EU report *Sharing and Caring COST Action* (2018, p. 78) it is pointed out that in the case of Spain, "the sharing economy emergence happened during the last financial crisis, which has reduced people's buying power worldwide". But against this background, the MoB and the Catalan government have taken measures to deal in particular with the "tourismification of the city" (Russo & Scarnato, 2018, p. 456; Judd & Fainstein, 1999) and the impressive increase of house rentals through sharing platforms which have been linked to phenomena of gentrification and rising housing prices. Also, the MoB has taken action to limit the activity of platforms such as Uber, BlablaCar and Cabify (Ajuntament de Barcelona, 2014). However, this should be contextualized in a broader effort in Spain to develop a legal framework to regulate sharing economy initiatives, to protect the rights of 'self-employed' workers (see examples of recent Spanish court decisions against the Deliveroo and Glovo online food delivery platforms) and to enforce incoming taxation rules (EU Sharing and Caring COST Action, 2018). Other policies of the MoB aimed to address the problems of traffic congestion and pollution in the city by presenting the use of public transport and bicycle sharing schemes as an alternative option (Winslow & Mont, 2019).

## 4. Findings

This section presents how the municipality of Barcelona framed the sharing city project. More specifically the three frames suggested by Benford and Snow (2000) reveal how the municipality, through different public documents, strategically builds associations between specific pathologies of the city (diagnostic frame) and the solutions provided (prognostic frame) in relation to the sharing city project. Fig. 1 summarizes the framing strategies adopted by the municipality of Barcelona and the focus of each. Hence, in the examined documents, the municipality uses discourse to 'detect the problem' and to 'generate alternatives and offer solutions'.

Moreover, the suggested solutions often require collective effort and citizen engagement so the motivational frame shows how the municipality intends to mobilize citizens to take action. One such example is the *+Sustainable Barcelona map* (see Table 4). The language used in each of the frames is also worth of attention with regards the strategic message transmitted. For instance, in the example of the map a positive and optimistic tone is used, which seeks to transmit an image of trust and to mobilize participation.

### 4.1. Frame 1. Diagnostic: confronting the crisis

As mentioned above, the framing approach places emphasis on the

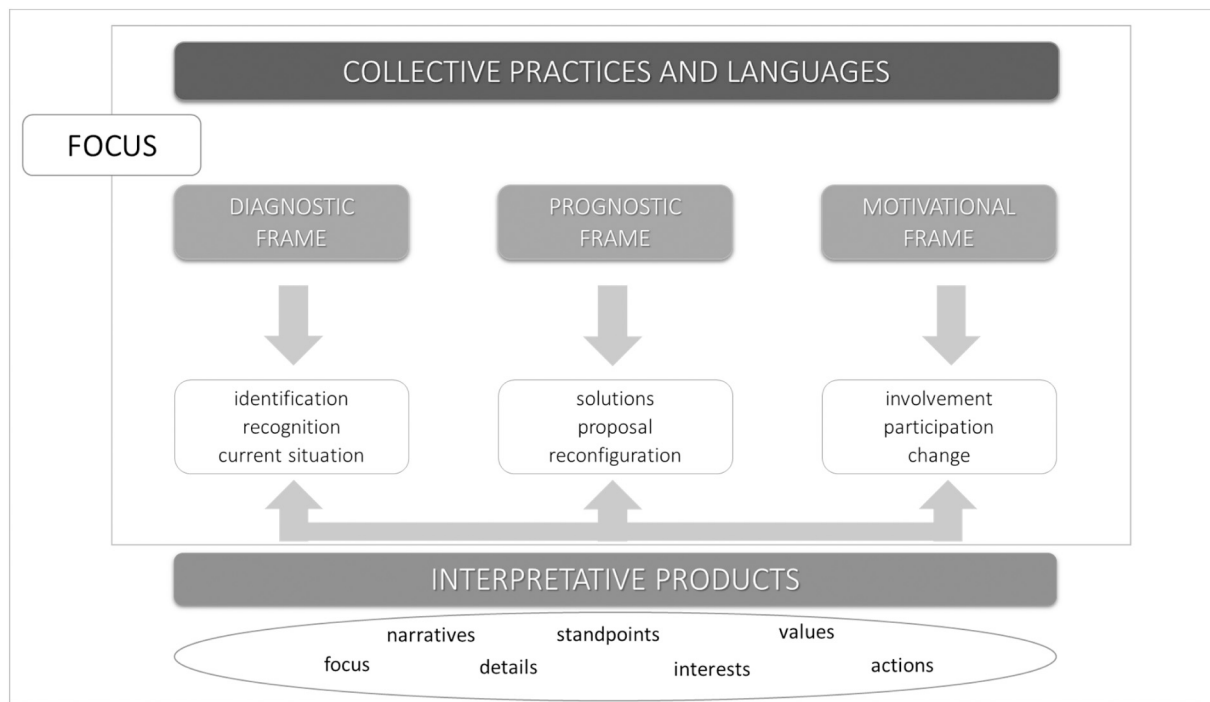


Fig. 1. Framing tasks.

Table 4

Examples of projects, events and spaces organized by the MoB that aim to mobilize different city actors.

Barcola	A group whose initials stand for Barcelona Colaborativa which has integrated members from public administration, OuisShare, universities, private companies etc. that propose policies in relation to the implementation of the sharing city.
Procomuns	A policy brainstorming forum with monthly meetups. These are organized by Barcola and Barcelona Activa, among others. The objective is to co-design public policies to promote the procommons model and to build open collaborative platforms. They seek to actively involve citizens.
Decidim.barcelona platform	A platform where any citizen can propose ideas of projects and initiatives in relation to the sharing city. These ideas are also voted and commented in the platform, whereas suggestions are invited regarding the use of the city's budget.
LAB Metadecidim sessions	These are related to the decidim.barcelona platform. They are monthly in-person assemblies, where anyone willing to participate is able to, that serve to further discuss models of city governance.
Hackathons	Hackathons inviting people to create apps to design solutions regarding mobility, culture, tourism, urbanism, energy, commerce etc. For instance, the Apps4transparency hackathon aimed to develop an application that would enhance citizens' access to information on procedures related to the MoB
+Sustainable Barcelona map	An interactive map co-created by citizens, companies and public administration. The map permits to get to know new spaces and touristic itineraries of largely unknown shops, spots and new experiences for citizens and tourists. This initiative fosters urban sustainability and strengthens citizen networks in Barcelona.
La comunicadora	A program that promotes sharing economy platforms offering consulting, training, technical support to procommons business models. It is operating within the Barcelona Activa agency, which is in charge of fostering entrepreneurial initiatives in the city.

definition of the problems in order to establish causal attributions and naturally connect with the recommendations proposed in the public discourse. In other words, the definition of problems allows the legitimization of certain paths of action (Eilders & Lüter, 2000; Snow et al., 2007) especially for policy makers and governments (Baldy, 2019). The literature warns us on this subject that the limits between diagnosis and prognosis can sometimes be difficult to articulate (Benford, 1993; Snow et al., 2007).

In general, the documents analyzed present the problem in different degrees of magnitude and urgency. In some cases, the problem is constructed in explicit negative terms, emphasizing the impact it has on residents. For example, housing appears as of utmost importance and is presented in relation to 'price speculation', 'instability', 'inequality', 'gentrification', 'problem', 'lack of access to housing', etc. Access to housing is presented as a resident's right that requires control and measures. The situation of housing is narrated as an "emergency" for the city, which in turn is strategically used to promote the cohousing model as an alternative in the face of difficult access to dignified housing, speculation and instability. Also, other actions, such as a revision of the law which regulates rent, are presented in the examined public documents as alternative paths of institutional solutions.

In other cases, the analysis of the documents shows that the problem may be also expressed in a milder manner by arguing for instance that the city is not fulfilling its potential. Such examples are, for instance, to argue for the improvement of existing green spaces or for the warm embracement of new technologies in order to make city management more efficient. While in the example of housing, different documents present the problem in a clear negative light, for other issues the current state set out is not problematic but may be improved. Previously, diagnostic frames had been used to provide a notion of what "it should be like if it had no problems" (Martin, 2003, p. 739). We add that diagnostic framing permits the municipality to articulate the 'ideal city' not only by imagining it without problems, but by imagining its best version.

In any case, whether the diagnosis carried out aims to show an emergency for the city or to indicate its margin for improvement, the municipality is highlighted in the documents as the main actor that

places effort in remediating the situation in areas related to public services, revitalization of neighborhoods, employment generation etc.

#### 4.2. Frame 2. Prognostic: communicating the change

The documents are framed in a strategic manner to communicate that Barcelona City Council actively seeks to offer alternatives in the face of problems which affect the city and its communities. Prognosis framing includes a plan of attack and frame-consistent tactics for carrying it out (Snow et al., 2007). It is indicative that out of 67 documents, 54 include prognostic frames, thus representing 80% of the total. In other words, the documents analyzed may first discursively construct the problems or issues of concern, but most of the emphasis is actually placed on communicating the solutions to problems by constantly pointing out the change brought on by the municipality. This in turn, contributes to the projection of a positive image of the MoB and its actions (Fig. 2).

As already mentioned, the housing category is one of the thematic categories to which much attention is paid. Documents emphasize the right to housing and the dignity associated with this right. So, what is implicitly pointed out is that the city hall is willing to protect this right and in that regard, they explain the actions taken. The aim is very clear "... to progress with the idea of housing as a social right" ([https://ajuntament.barcelona.cat/ciutatvella/es/noticia/ciutat-vella-inicia-su-primer-proyecto-de-vivienda-cooperativa-en-cesion-de-uso\\_497526](https://ajuntament.barcelona.cat/ciutatvella/es/noticia/ciutat-vella-inicia-su-primer-proyecto-de-vivienda-cooperativa-en-cesion-de-uso_497526)).

In order to deal with the issue of housing, the local government has actively promoted the cohousing model, has announced an increase in public housing and has established the *Neighbourhood Plan*.

[About the *Neighbourhood Plan*]: "This is a plan for the neighborhood and against gentrification. The neighborhood plan intends to reduce inequality among the different neighborhoods of the city. In the case of South Raval and South Gothic, the plan fights against gentrification and in favour of neighbors' rights to live in the neighborhood in accessible and dignified conditions" ([https://www.barcelona.cat/infobarcelona/es/el-plan-de-barrio-se-presenta-al-vecindario-del-raval\\_638149.html](https://www.barcelona.cat/infobarcelona/es/el-plan-de-barrio-se-presenta-al-vecindario-del-raval_638149.html)).

Furthermore, the municipality frames this plan of action as their fight against gentrification. The language used aims to establish that other actors are also involved so solutions do not solely depend on the city council in spite of their efforts. Other measures, such as the provision of cultural facilities, the refurbishment of buildings and interventions in specific problematic neighborhoods, form part of the solutions proposed. Also, the documents often refer to other positive European experiences, such as Berlin, Copenhagen and Vienna, to offer some kind of guarantee of the suggestions' potential.

The issue of gentrification and lack of housing in the city has been raised by Barcelona City Council as a direct implication of the increasing activity of accommodation sharing platforms such as Airbnb. In fact, the documents published in the Barcelona City Hall website tend to represent Airbnb under a clear negative light: "Either Airbnb abides by the law or they cannot operate in Barcelona", "Airbnb undertakes to remove

illegal flats from its platforms", etc. Also, in most documents the municipality's actions are foregrounded: "Barcelona fines Airbnb and Homeaway...", "proceedings to fine...", "municipal inspections...". Unlike other sharing cities, in the case of Barcelona the economic activity of platforms of the so-called sharing economy is under scrutiny (Wachsmuth & Weisler, 2018). In this case, the city council endeavours to reverse the negative impact generated by the so-called sharing economy through different practices and projects which often invite citizen collaboration and participation. The clear participatory focus of these solutions treats the citizens as an essential actor to bring about change and solve problems, so we tend to find a combination of prognostic and motivational frames in these cases. In previous literature, prognostic frames aimed to incite collective action (Martin, 2016), and at the same time to enhance a true sense of community and empowerment (Manzini, 2019).

For example, in the analyzed documents the municipality announces the organization of competitions, such as *hackathons* for the construction of cooperative housing, the *Procomuns Forum* –an annual event for the cocreation of public policies–, the announcement of the green roofs competition where the municipality offers subsidies so that citizens come together and design green rooftops. Another example would be the participatory budgets and plans for the encouragement of culture, feminism, sexual diversity and the social and solidarity-based economy in the districts of Gràcia and the Eixample. What these all share in common is that the citizen is framed as part of the solution. The municipality aims to show that in a true sharing city the answers to the problems entail a process of dialogue, negotiation and consensus where different stakeholders, and certainly citizens, participate.

Furthermore, our findings show that in these documents the municipality openly opposes and criticizes the uncontrolled activity of certain sharing platforms. This framing is also interesting because it reveals what the municipality considers to be sharing and what is not. It also questions previous literature that places the sharing economy at the heart of the sharing city project (Agyeman et al., 2013; Longhurst et al., 2016). Instead, in the documents the MoB mainly supports organizations that promote the collaborative economy with a social benefit orientation. In fact, in one of the documents the City Hall provides a clear distinction of what is considered as sharing or collaborative economy. The document initially compares Uber and Fairmondo saying that they are both examples of the platform economy representing, though, different models: "Uber is a private company that maximises profit, whereas Fairmondo is a cooperative that belongs to its members, is based on open source and environment-friendly products, and maximises community building, what is known as the platform cooperativism model." (<https://www.barcelona.cat/metropolis/en/contents/challenges-and-opportunities-platform-economy-cities>). Moreover, an analytical tool is proposed in the same document to distinguish the real sharing platforms using criteria such as the platform's sustainability, performance, organizational democracy, participation policies and social responsibility.

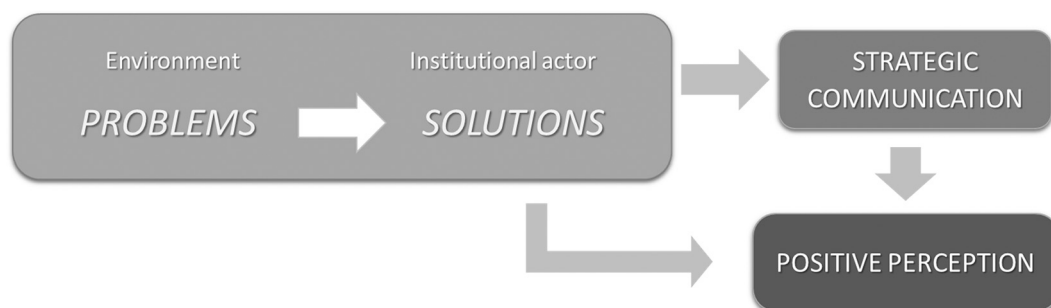


Fig. 2. The institutional communication of solutions in the city.



#### 4.3. Frame 3. Motivational: inviting to join

According to Martin (2003, p. 736), a motivational frame “describes the group of actors and potential actors exhorting people to act”. As aforementioned, for the municipality, “citizen participation improves democracy and, thanks to the contributions of neighbours, the social demands and needs of the territory can be met... The efficiency of public policies increases with a broader consensus. The objective is therefore for citizens to participate in the decisions of the city” ([https://www.barcelona.cat/infobarcelona/es/nuevos-procesos-participativos-nuevo-portal-decidim-barcelona\\_423675.html](https://www.barcelona.cat/infobarcelona/es/nuevos-procesos-participativos-nuevo-portal-decidim-barcelona_423675.html)). Citizen participation is constantly explained as a central principle in the sharing city notion, both in previous literature (Bernardi & Diamantini, 2018; McLaren & Agyeman, 2015) and in our findings. In that regard, the MoB initiated a number of projects and spaces where the citizen is rhetorically placed at the heart of the sharing city project. Table 4 presents examples of events and initiatives that invite citizens and other actors to co-create and participate in the sharing city project.

A good example is the *decidim.barcelona* platform which is described in the documents as a “...space for the participation of all Barcelona residents, [which] will be the framework for the participatory processes of the city and of the neighbourhoods to collectively construct the municipal policies with the citizens” ([https://www.barcelona.cat/info-barcelona/es/nuevos-procesos-participativos-nuevo-portal-decidim-barcelona\\_423675.html](https://www.barcelona.cat/info-barcelona/es/nuevos-procesos-participativos-nuevo-portal-decidim-barcelona_423675.html)).

Fig. 3 displays how Barcelona sharing city is presented through the three frames used for the analysis as an opportunity, good practice and citizen empowerment.

The presentation of the South Raval *Neighbourhood Plan* was carried out by means of a neighbourhood festival, in which photographs of the residents were displayed, using the motto “We are from the Raval”. Also, the music playlist was compiled by all participating neighbors. The promotion of encounters of this type not only guarantees access to information on new policies and initiatives of the city hall, but also brings together citizens and helps to measure their degree of participation.

These urban dynamics moreover provide a sense of identity and integration and, above all, fosters a sense of community which can motivate the citizens even more (Govers, 2018).

It seems that the municipality aims for citizen empowerment and participation in the long term. In a document it is indicated that “the objective is for young people to become political players of the city and to formulate commitments and feasible recommendations for improvement which can be channelled and applied through the municipal plan” ([https://www.barcelona.cat/infobarcelona/es/empieza-el-audiencia-publica-a-los-chicos-y-las-chicas-que-se-centra-este-curso-en-el-refugio\\_423501.html](https://www.barcelona.cat/infobarcelona/es/empieza-el-audiencia-publica-a-los-chicos-y-las-chicas-que-se-centra-este-curso-en-el-refugio_423501.html)). To achieve this, the municipality often informs in the analyzed documents that they will provide the required structures (e.g. platforms, spaces).

Other areas, such as art, also allow for citizens involvement. In 2016, the artist Philip Stanton produced a giant installation in the courtyard of Montjuïc Castle, where Barcelona residents participated in the creative process. The redesign of GuiaBCN, on the council portal, also asked from citizens and associations to design contents.

## 5. Discussion

The ideal sharing city has emerged as another best practice city project in recent years. However, similar to the smart city, there is no coherent global discourse about the practical implementation of the sharing city project, which may lead in very distinct interpretations of the same notion (Joss et al., 2019). This paper has explored how the sharing city project is envisaged by the MoB and it is strategically communicated as part of the city’s governance.

In our analysis, it is rather evident that consensus, dialogue and active citizen participation are central elements in the sharing city notion that the MoB projects. Table 4 presents different events and initiatives where citizens and other actors are invited to co-create with the MoB. Also, seventeen documents were found in the Institutional Participatory Processes category, which represents the most saturated thematic category, where new modes of governance, structures and

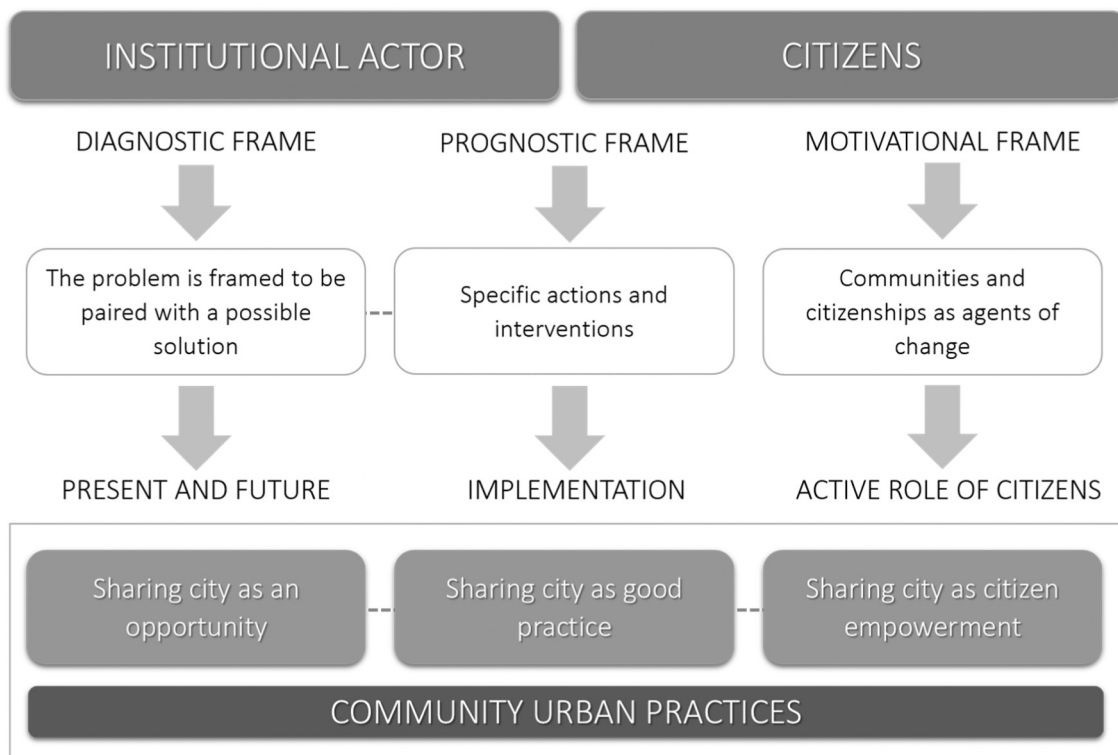


Fig. 3. Main findings of frame analysis.

spaces to facilitate dialogue in the city are communicated. Also, seven documents were found in the Community development category describing initiatives that increase human interaction in the city. The *decidim.barcelona* platform would be an example of the former category whereas the establishment of neighbourhood communities an example of the latter. All these reveal that the rhetoric of the sharing city project foregrounds the importance of the citizen and lies on the principles of empowerment, participation, democracy and human interaction. Similarly to what has been argued before, the sharing city is presented with a clear human centric focus emphasizing citizen benefit and participation above all (Bernardi & Diamantini, 2018; McLaren & Agyeman, 2015).

Certainly, this does not mean that the sharing city should not rely on new technologies or should not be oriented towards sustainability and innovation. In the case of Barcelona, a good number of documents are placed in the Strategic Innovation and new technologies category ( $n=13$ ) that is focused on the development of technology applications and platform economy. The importance of technology is found in many categories from education (see the example of promoting the use of 3D printers in schools) to transport and the facilitation of sustainable modes of transport in the city using mobile applications. Furthermore, the analyzed documents suggest a clear support of certain private entities like Fab Lab Barcelona or public entities like the BarCola which offer tools, services and resources to the community in order to generate social and economic innovation.

According to the results obtained, the sharing city project is narrated as an opportunity and a work in progress. The idea that “there is more to be done”, but that the government “is working on it” is constantly transmitted. Also, another idea that is emphasized is that solutions arise collectively. This has a dual purpose. It both seeks to convince the audiences to identify with the ideas promoted and to demonstrate the achievements of the municipal administration in leadership of the collaborative city. It moreover makes it clear that the impetus of the model is top-down, but it has conceived a civic collective structure to bring it to fruition (McLaren & Agyeman, 2015).

Moreover, the incentives offered to citizens to participate in the sharing city project are diverse (Böcker & Meelen, 2017, p. 37). Citizens’ participation is rendered meaningful and they are enticed to collaborate with the government to produce social change in their city, or else as an expression of care towards their city (Laamanen et al., 2015). With some options there may be economic (OAE – *Barcelona Activa*, *Smart City Expo World Congress*, etc.), environmental (+*Sustainable Barcelona map*, *Programme to promote urban green infrastructure*, *furniture collection*, *Fábrica del Sol*, etc.), artistic (*tribute to Albert Musons*, *flowers in Montjuïc Castle*), technological (*Smart City App Hack*, *Mobile Week BCN*, etc.), or social incentives (*agreement with Elisava*, *Plaza Ferrán Reyes*, *festive presentation South Raval Neighbourhood Plan*, etc.). Previous research suggests that the permanent collaboration between governmental power and citizens may also reinforce the sense of local identity and allows communities to endorse their rights through participation (Compte-Pujol et al., 2017; Kavaratzis, 2012; Kavaratzis & Kalandides, 2015).

The use of frame analysis permitted to explore the indivisible problem-solution nexus. According to Vicari (2010, p. 509) frame analysis “investigates processes of signification: it looks at the way meaning becomes functional to mobilize collective action”. The underlying idea is that discourse can perform different tasks: it may intend to identify a problem and attribute blame and causality (diagnostic), to provide solutions (prognostic) and to mobilize certain group/s to act (motivational) (Vicari, 2010). Furthermore, it can prove a particularly useful lens to examine public discourses because it shows how institutions try to convince people of their suggested or adopted policies by establishing such policies as the sensible path of action (Vogel, 2012). Eilders and Lüter (2000), for instance, show through frame analysis how the German government tried to legitimize its participation in the Kosovo war.

In this particular case, the documents analyzed placed greater emphasis on the prognosis which shows a strategic intention to reflect

numerous achievements, initiatives and efforts on the part of the municipality. Achievements can be successfully communicated if they are framed as solutions to specific problems. However, this means that problems need to be clearly articulated first. In this sense, the frame analysis has been a useful lens in identifying diagnostic, prognostic and motivational frames to justify not only why the sharing city is a loadable goal of city management, but also what context-specific practices are useful and timely in line with the municipality’s agenda. Furthermore, the sharing city is proposed as the result of the joint collaboration of citizens, the government and other actors; hence, motivational frames aim to mobilize and empower citizens. However, at the same time this shows how the MoB ‘responsibilizes’ the citizens in the implementation of the sharing city project. The documents analyzed implicitly suggest that the successful implementation of the sharing city project largely depends on whether citizens will take on their responsibilities. However, as Clarke (2005, p. 451) puts it, citizens are “subjects of practices of governmental constitution...they are not just ‘responsible’, they are the product of processes of responsabilization”.

Our findings also show how the sharing city is understood and framed in relation to the notion of sharing and the sharing economy. First of all, unlike other empirical cases (Agyeman et al., 2013; Longhurst et al., 2016), here the endorsement of the sharing economy by the sharing city project is questioned. We have previously explained that the notions of sharing and the sharing economy have been criticized in previous literature and different authors have explicitly argued that many sharing economy platforms have nothing to do with sharing (Belk, 2014; Schor, 2014; Skågeby, 2015; Eckhardt & Bardhi, 2016). Although it is not our intention to enter in this debate, our findings show a similar positioning on the part of MoB. The MoB explains what is included/excluded from their definition of sharing. For instance, the presentation of Uber as a profit-maximizing company versus the cooperative Fairmondo that maximises community building by the MoB, which we presented in our findings section, are good examples of what the MoB understands as sharing and part of the sharing economy. In the documents, it can be seen that the local government is particularly critical of certain sharing platforms echoing already raised concerns about the lack of regulation and various negative externalities (Martin, 2016). The MoB embraces a very concrete notion of sharing and the sharing economy, that of collective benefit, cooperativism, peer-to-peer production and consumption with a social orientation. These interrelated aspects, namely first how the sharing city project is articulated in relation to the sharing economy and second the definition of sharing that local governments embrace, could be used by future research in order to develop taxonomies of the implementation of sharing city projects. Furthermore, it is worth mentioning that the analyzed documents correspond to the first term of office of a leftist party. However, a future party change could bring on a different approach for the sharing city project. Therefore, a potential boundary condition of this study is the political orientation of the local government, which seems to play its part on how the sharing city project is being implemented.

## 6. Conclusions

In this paper, we have tried to explore how the sharing city project is understood and strategically communicated in the case of Barcelona by the municipality. In relation to methodology adopted, frame analysis allowed us to delve into how the government favours its political brand through the communication of the sharing city project seeking to strengthen the trust in this institutional actor and its proposals. The content, as well as the narrative tone and style of the examined documents aim to show public opinion the evidence of the municipality’s achievements and to announce future plans. Also, the communication of the government’s actions and policies “accompanies the ‘architectural’ phase of the exercising of power and the implementation of an agenda” (Noguera, 2012, p. 79).

The MoB is presented as the main institutional player that manages

the implementation of the sharing city project in Barcelona. The municipality is the actor that enables, controls and promotes the sharing city (Bernardi & Diamantini, 2018). However, the analytical method and dataset chosen put the spotlight on one actor whereas more actors are, without a doubt, involved in sharing city projects. Future research could provide insights about how different actors participate in these processes, especially for sharing cities where many bottom-up initiatives take place. Also, the interaction between actors and the conflicts that take place could be of interest.

Sharing cities have been defined in a very citizen-centric manner, which is further confirmed in our data (Agyeman et al., 2013; Chan & Zhang, 2018). In turn, this means that the sharing city project promulgates new understandings of citizenship or what Joss et al. (2017) call a new citizenship regime. This new citizenship regime is intentionally articulated by the MoB as more democratic and participatory with obvious benefits for the empowered citizens in order to further legitimize the sharing city project. However, while there are numerous examples of the projects and spaces that would allow for co-creation of the local government with citizens and other stakeholders (e.g. see Table 4), the main focus of the MoB communication efforts is on informing about these initiatives leaving in the background how citizens would exactly exercise their agency. For example, the decidim.barcelona platform is an open space for citizens to make suggestions for how to spend the public budget, but the MoB would make any final decisions. Moreover, there is lack of information on how these initiatives are received by residents and how much they feel that their voices are being heard. An example is the presentation of the Neighborhood Plan for the Gothic and Raval neighborhoods (see Findings) but without any evidence of the residents' feedback on it. This is an oxymoron given the centrality of citizens as actors in the sharing city project.

Then, other aspects that draw the attention is whether all citizens can equally participate in the spaces that the MoB opens for them or certain groups will be excluded (Calzada & Cobo, 2015). For example, digital tools such as online platforms or mobile applications are commonplace which excludes the digitally and technology illiterate citizens and the ones without access to internet and technologies, e.g. homeless and other marginalized groups. The consideration of the digital divide is only an example of whether the suggested policies and projects are inclusive enough for all citizens.

Furthermore, in our empirical case the sharing city project is

ultimately a project of the MoB which invites for citizens' participation. In spite of the value that the initiatives taking place may have, local governments decide and define what is sharing and ask for specific types of participation from their citizens. Also, these projects may aim to mainly favour the political brand endorsed by local governments. For instance, Asplund (2011, p. 125) points out that initiatives to foster social entrepreneurship or green infrastructures "bring social prestige and an immediate feeling of activity" which positively reinforces the city place brand and the municipality's political brand (Jernsand & Kraff, 2017). Alternatively, these projects could be unreflexively adopted as "an obligatory passage point...to modernization" (Krivý, 2018, p. 13). It remains to further examine the real social impact that the sharing city project has on the city, on the residents and other actors. For instance, is bridging and bonding social capital created? Moreover, examining citizens' and other stakeholders' views regarding whether sharing city projects live up to their hype could be an interesting line of future research.

### CRedit authorship contribution statement

The first author downloaded the dataset and carried out a preliminary analysis. Then the dataset was jointly analyzed by all three reviewers. The first and second authors carried out the literature review. All three authors carried out the methodological design of the study and equally participated in the discussion and conclusions sections.

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### Declaration of competing interest

None.

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## Appendix A

### Appendix

List of news items contained on Barcelona City Council website.

	News Title	Año	Frame	Category
1	Cómo ha de ser el futuro de la economía colaborativa	2016	Prognostic	Institutional Participatory processes
2	Nace un concurso internacional para hallar soluciones digitales para las ciudades inteligentes	2015	Prognostic	Strategic innovation and new technologies
3	Un mapa para redescubrir la ciudad	2017	Prognostic Motivational	Strategic innovation and new technologies
4	Todo a punto para la Smart City App Hack	2017	Prognostic Motivational	Strategic innovation and new technologies
5	Ciutat Vella inicia su primer proyecto de Housing cooperativa en cesión de uso	2017	Prognostic	Housing
6	Debate sobre economía digital en el Smart City Expo World Congress	2016	Prognostic	Institutional Participatory processes
7	Cómo aplicar el diseño para mejorar la ciudad	2017	Prognostic	Education Institutional Participatory processes
8	Nuevos procesos participativos, nuevo portal decidim.barcelona	2016	Prognostic	Institutional Participatory processes
9	Inicio del período de información pública de los proyectos de reurbanización del Distrito de Sarrià - Sant Gervasi	2017	Prognostic	Urban planning and the environment
10	Más verde para hacer una ciudad más saludable	2017	Prognostic	Urban planning and the environment
11	Abierta la convocatoria del concurso de cubiertas verdes	2017	Prognostic	Urban planning and the environment
12	Nace un mapa de las iniciativas sostenibles de la ciudad	2014	Prognostic	Institutional Participatory processes Strategic innovation and new technologies
13	La Oficina de Atención a las Empresas se abrirá al mundo de la economía social y colaborativa	2015	Prognostic	Entrepreneurship
14	La economía social y solidaria en el mundo local se debate en Montreal	2016	Prognostic	Institutional Participatory processes

(continued on next page)

## Appendix (continued)

	News Title	Año	Frame	Category
15	Barcelona celebra el Día Mundial de las Ciudades	2017	Prognostic Motivational	Urban planning and the environment
16	Decidamos el futuro de la economía social y solidaria	2016	Prognostic	Institutional Participatory processes
17	El Fòrum Procomuns 2017 se celebrará el 27 y el 28 de junio en Barcelona	2017	Prognostic	Entrepreneurship
18	Construcción de 110 pisos en 5 solares municipales según la fórmula de la coHousing	2017	Motivational	Housing
19	Las Sharing Cities Summit elige Barcelona	2017	Prognostic	Education Entrepreneurship Institutional Participatory processes
20	Mobile Week BCN, ¿hacia dónde va la transformación digital?	2017	Prognostic	Strategic innovation and new technologies
21	Barcelona estrena un nuevo modelo de web	2015	Diagnostic Prognostic	Institutional Participatory processes
22	Fin de semana: Rutas por la Barcelona femenina, museos y la épica del maratón	2018	Prognostic Motivational	Community development Art and creativity
23	Barcelona recibe el premio "Thinking Cities" por el uso de las aplicaciones móviles para obtener datos ciclistas	2015	Prognostic	Transport
24	Los muebles, ¿el día que toca!	2017	Prognostic Motivational	Urban planning and the environment
25	Oferta de programas i talleres formativos para iniciativas de Economía Social y Solidària	2017	Prognostic	Education
26	La Housing y la economía solidaria, ejes de la visita municipal a Montreal y Nueva York	2018	Prognostic	Housing
27	Barcelona Activa da un paso adelante para impulsar la economía solidaria	2016	Prognostic	Entrepreneurship
28	¿Ven y descubre la nueva Fábrica del Sol!	2018	Motivational	Urban planning and the environment
29	Taller participativo para aportar nuevas ideas sobre las tecnologías aplicadas al deporte	2015	Prognostic	Institutional Participatory processes
30	Plan de Barrios se presenta al vecindario del Raval	2017	Motivational	Community development
31	Mobile Week BCN, ¿hacia dónde va la transformación digital?	2017	Prognostic	Strategic innovation and new technologies
32	Presentación del uBMS, el observatorio de mariposas urbanas	2018	Prognostic	Urban planning and the environment
33	El Plan de Barrio se presenta al vecindario del Gòtic	2017	Prognostic	Community development
34	Un salón para combatir el paro juvenil	2018	Prognostic	Employment Education
35	Empieza la Audiencia Pública a los chicos y las chicas, que se centra este curso en el refugio	2016	Motivational	Community development Education
36	Tecnología al servicio de la democracia	2017	Motivational	Strategic innovation and new technologies Institutional Participatory processes
37	Fin de semana: El carnaval enloquece a los distritos [Debate abierto sobre la transformación digital]	2017	Motivational	Community development
38	De los 'fab labs' a las 'fab cities'	2014	Prognostic	Strategic innovation and new technologies
39	Colau apuesta por una economía que reduce las desigualdades	2015	Prognostic	Institutional Participatory processes
40	La Semana de la Movilidad en La Fábrica del Sol	2016	Prognostic	Transport
41	Siete solares municipales se destinarán a Housing cooperativa	2016	Prognostic	Housing
42	Comienza una nueva etapa de desarrollo en la plataforma Decidim	2018	Prognostic	Institutional Participatory processes
43	#JAM17 sobre "Tecnologías para una democracia en red"	2017	Prognostic	Institutional Participatory processes
44	Aumentan en un 50% las subvenciones para proyectos educativos con utilidad social	2016	Prognostic	Education Institutional Participatory processes
45	Nuevas tecnologías al servicio de la democracia	2018	Prognostic	Institutional Participatory processes
46	Los Mercados participan por primera vez de la <i>Barcelona International Community Day</i>	2017	Motivational	Community development Food
47	Fira de Barcelona ha celebrado 68 salones durante el 2015	2015	Diagnostic	Employment
48	Gracia se vuelca en una obra en homenaje a Albert Musons	2015	Motivational	Art and creativity
49	Si eres inquilino/a, tienes derechos y recursos para acceder a la Housing. ¿Los conoces?	2017	Prognostic	Housing
50	#HabitatgeJove: "Joven, ¿buscas piso?"	2017	Prognostic	Housing
51	Estrategia metropolitana y 1.800 millones para revitalizar el delta del Llobregat	2018	Prognostic	Urban planning and the environment
52	Unas flores gigantes subvierten la historia del Castillo de Montjuïc	2016	Prognostic	Art and creativity
53	La fabricación digital y en 3D se acerca a las aulas	2014	Prognostic	Education
54	Encuentro de intercambio entre los equipamientos de Education ambiental en Sagunt	2017	Prognostic	Urban planning and the environment
55	La Housing en Barcelona: un cambio de paradigma a todos los niveles	2017	Diagnostic	Housing
56	Més verd per fer una ciutat més saludable	2017	Prognostic	Urban planning and the environment
57	Reflexionemos sobre la Economía Circular en Código Abierto	2016	Prognostic	Strategic innovation and new technologies
58	El Ayuntamiento apuesta por la coHousing en Ciutat Vella e impulsa la Housing social	2017	Prognostic	Housing
59	Economía circular contra la brecha digital	2018	Prognostic	Strategic innovation and new technologies
60	Impulso municipal para el 22@	2017	Diagnostic	Urban planning and the environment
61	Las sesiones LAB Metadecidim, disponibles en vídeo	2017	Prognostic	Institutional Participatory processes
62	Publicadas las subvenciones de Innovación Democrática	2017	Prognostic	Institutional Participatory processes
63	El viaje educativo	2017	Motivational	Education Community development
64	¿Es posible terminar la Sagrada Família con impresión 3D?	2016	Diagnostic	Strategic innovation and new technologies
65	La Wikipedia la construimos entre todos i todas	2014	Prognostic	Strategic innovation and new technologies
66	Los jóvenes construyen el futuro de la plaza de Ferran Reyes	2016	Motivational	Community development
67	Ciclo L'Era Digital: La intel·ligència màquina	2018	Prognostic	Education



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