



Radical innovation for the post-COVID city: a
study of citizen-led innovation labs in five Spanish
cities

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To the taxpayer

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Resum

La innovació radical colpeix en onades. Des de principis dels anys 2000, diversos moviments socials van desenvolupar una nova onada d'idees que impulsà experiments en ciutats europees - incloses les espanyoles. Des de els marges, aquestes idees pretenien allunyar la ciutat dels models neoliberals i emprenedors. Algunes d'aquestes innovacions radicals van aconseguir inserir-se en les polítiques urbanes. Tot i això, les implicacions sistèmiques d'aquests fenòmens han estat escassament explorades, especialment a Espanya. Aquesta investigació aborda eixa llacuna, analitzant com la innovació ciutadana ha canviat els sistemes d'innovació urbana a Espanya entre principis de la dècada del 2010 i el 2023.

L'estudi es centra en cinc laboratoris ciutadans vinculats a institucions públiques: Cítilab (Cornellà), Cobo lab (Sant Boi), Medialab Prado (Madrid), Medialab Tabakalera (Donostia) i Ciuta·lab (València). La recerca respon a tres preguntes clau: (i) Quines formes d'innovació radical han desenvolupat aquests laboratoris? (ii) Quins factors territorials han condicionat la seua evolució? (iii) Com han transformat les característiques sistèmiques de la innovació social a les seues respectives ciutats?

La metodologia combina l'anàlisi documental amb cinc entrevistes semiestructurades realitzades entre desembre de 2024 i febrer de 2025. Els resultats revelen que els laboratoris ciutadans han articulat un paradigma propi d'"innovació amb la gent", basat en l'apoderament cívic, la governança col·laborativa i l'experimentació. El seu desenvolupament ha estat fortament condicionat per factors territorials, especialment pel seu ancoratge institucional i pel clima polític local, com ara l'auge de les "ciutats del canvi" després de les eleccions municipals de 2015.

Tot i que el seu impacte sistèmic ha estat limitat, els laboratoris ciutadans han consolidat un nínxol dins dels ecosistemes d'innovació urbana, promovent normes democràtiques i la cocreació en les polítiques públiques, gràcies a un entorn polític-institucional parcialment receptiu a l'onada d'innovació radical iniciada pels moviments socials.

Paraules clau: laboratoris ciutadans, innovació ciutadana, innovació social, factors territorials, règims urbans d'innovació social.

Resumen

La innovación radical golpea en oleadas. Desde principios de los años 2000, una nueva oleada de ideas iniciada por movimientos sociales impulsó experimentos en ciudades europeas - incluidas las españolas - con el fin de alejar a la ciudad de modelos neoliberales y de emprendimiento. Desde los márgenes, algunas de estas innovaciones radicales lograron insertarse en las políticas urbanas. A pesar de ello, las implicaciones sistémicas de estos fenómenos han sido escasamente exploradas, particularmente en España. Esta investigación aborda esa laguna, analizando cómo la innovación ciudadana ha cambiado los sistemas de innovación urbana en España entre principios de la década de 2010 y 2023.

El estudio se centra en cinco laboratorios ciudadanos vinculados a instituciones públicas: Cítilab (Cornellà), Cobo lab (Sant Boi), Medialab Prado (Madrid), Medialab Tabakalera (Donostia) y Ciuta-lab (València). La investigación responde a tres preguntas clave: (i) ¿Qué formas de innovación radical han desarrollado estos laboratorios? (ii) ¿Qué factores territoriales han condicionado su evolución? (iii) ¿Cómo han transformado las características sistémicas de la innovación social en sus respectivas ciudades?

La metodología combina el análisis documental y cinco entrevistas semiestructuradas realizadas entre diciembre de 2024 y febrero de 2025. Los resultados revelan que los laboratorios ciudadanos han articulado un paradigma propio de “innovación con la gente”, basado en el empoderamiento cívico, la gobernanza colaborativa y la experimentación. Su desarrollo se ha visto fuertemente condicionado por factores territoriales, especialmente su anclaje institucional y el clima político local, como las “ciudades del cambio” tras las elecciones municipales de 2015.

Aunque su impacto sistémico ha sido limitado, los laboratorios han consolidado un nicho dentro de los ecosistemas de innovación urbana, promoviendo normas democráticas y la cocreación en las políticas públicas, gracias a un entorno político-institucional parcialmente receptivo a la ola de innovación radical iniciada por los movimientos sociales.

Palabras clave: laboratorios ciudadanos, innovación ciudadana, innovación social, factores territoriales, regímenes urbanos de innovación social.

Abstract

Radical innovation tends to hit in waves. Starting from the early 2000s, a wave of ideas unleashed by social movements inspired renewed experiments through European cities—including in Spain— seeking to redirect urban development away from neoliberal and entrepreneurial models. From the margins, innovations cultivated in radical niches broke into the mainstream of urban social innovation. Yet, the systemic implications of these developments—particularly in Spain—remain underexplored. This dissertation addresses that gap by examining how citizen-led innovation affected Spanish urban innovation systems between the early 2010s and 2023. The study focuses on five citizen labs embedded in public institutions—Citilab (Cornellà), Coboï lab (Sant Boi), Medialab Prado (Madrid), Medialab Tabakalera (Donostia), and Ciuta·lab (València). It is guided by three research questions: (i) What forms of radical innovation have these labs developed? (ii) What territorial factors have shaped their evolution? (iii) How have they transformed systemic features of social innovation in their cities?

The research combines documentary analysis with five semi-structured interviews conducted between December 2024 and February 2025. Findings reveal that these labs articulated a distinct paradigm of “innovation with people,” grounded in civic empowerment, collaborative governance, and experimentation. Their development was strongly influenced by territorial factors, particularly their institutional embedding and the local political climate—most notably the rise of the “ciudades del cambio” following the 2015 municipal elections.

While their overall systemic impact remains limited, the labs have succeeded in carving out a distinct niche within urban innovation ecosystems. They have contributed to reconfiguring urban innovation regimes by embedding democratic norms and co-creation practices into select public policies. These advances were made possible by a favourable institutional and political environment accross Spanish cities which—at least partially—embraced the wave of radical innovation set in motion by early 21st-century social movements.

Keywords: citizen laboratories, citizen-led innovation, social innovation, territorial factors, urban regimes of social innovation.

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1. Introduction

Socially innovative actions do not simply happen within places; they happen in response to place-specific issues and through the mobilisation of place-specific resources: nature and habitat, infrastructures, organisations, skills and knowledge, social and ecological networks, more democratic forms of local governance, and so on (Moulaert and Nussbaumer, 2005). Moreover, they are *spatial projects*, in the sense that they seek to redefine and rearticulate spatial systems and politics and to reclaim the public space that – in general terms – has been fragmented, environmentally deteriorated and marketized by the forces of neoliberalism . . . (Moulaert and MacCallum 2019, 80, emphasis in the original).

Thirty years on, the smart city has not fulfilled its promises. Early efforts like Amsterdam’s Digital Stad (1994) and Barcelona’s hosting of the first Smart City Expo (2011) were a glimmer of hope (Winkowska, Szpilko, and Pejić 2019). Yet by the 2000s, the model became data-heavy and technocratic, shaped by corporate and ICT interests (Rabari and Storper 2015). The smart city paradigm served various agendas. For economists and adherents of the ‘city-as-the-greatest-human-invention’ (Glaeser 2011), it bore the promise of endless cycles of economic growth spurred by economies of agglomeration, network effects and rounds of infrastructure investment (Parnreiter 2024). For technocratic urban planners and ICT enthusiasts, it promised to deliver the ultimate form of data-driven governance. For urban growth machines, it rejuvenated the appeal of their discourse and refilled their already big pockets. Crucially, for urban managers it legitimated their default, another-day-in-the-office, *modus operandi*: awarding large contracts to Big Capital to expedite the disbursement of public budgets. Yet after the mid-2020s the smart city paradigm started to show signs of exhaustion, even of agnosticism. The response came in the form of a discursive shift to ‘smart citizens, not smart cities’ (Capdevila and Zarlenga 2015) and of growing scepticism across sections of the smart citizens themselves (van Twist, Ruijter, and Meijer 2023).

This disenchantment opened space for alternative paradigms like ‘citizen-led innovation’ – the focus of this dissertation. The alternative paradigms grew from critiques of mainstream

innovation as profit-driven and elitist (Bordignon 2017), and drew inspiration on relatively mainstream approaches such as Chesbrough's 'open innovation' (2003) and von Hippel's 'democratizing innovation' (2005). Recognizing the value of non-technological innovations for social change (McCrory et al. 2020), this new wave put forth three propositions: a) more openness to society, b) orientation towards addressing major societal challenges, and c) recognition of non-technological innovations (Domanski, Howaldt, and Kaletka 2020). All in all, and since the early 2000s, new ideas nurtured experimentation and coalesced in a new wave of radical innovation by urban social movements.

A second influence was place-based social innovation (García-Flores and Palma Martos 2019; Klein et al. 2016; Moulaert 2009; Moulaert and MacCallum 2019). Social innovation thinkers argued that the aim of innovation ought to be social needs, not economic growth per se, and highlighted the formative importance of territorial factors. In so doing, they took distance from market-led social innovators which in the early 2010s also blossomed, with the social incubator and the coworking probably as the most salient manifestations. This led to the necessity of refining existing frameworks of analysis (Marques and Morgan 2021).

A third, more important, influence, was a tradition of radical thinking and practice born from the participatory and empowering approaches of the 60s and 70s (Mota and Ataíde 2023; Sirianni and Friedland 2001), followed in the 1990s by novel movements such as the early cooperative, internet-based 'center without walls', of the idea of the world-spanning 'collaboratory' (Wulf 1989). The 1990s and 2000s were rich in new propositions, and social computing (Pascu and van Lieshout 2009), citizen science (Veeckman and Temmerman 2021), civic hacking (Schrock 2016) or collective intelligence (Peters and Heraud 2015; Rey 2022) all flourished in an enabling milieu of urban experimentation, if often in marginal niches. It was in this milieu that the citizen-led innovation paradigm, embodied in citizen labs, was also born and cultivated.

Against this background, academic debates too often falsely contrast citizen-led innovation with hi-tech approaches. Yet citizen-led innovation does not abhor from technology. A more meaningful divide opposes citizen-led and entrepreneurship-led innovation. While entrepreneurs are happy to subscribe to the slogan 'innovate for the people,' citizen-led innovation seeks to

‘innovate with the people.’ In the latter, innovating with citizens is not only a means to an end, but an end in itself.

Despite the diffusion of citizen-led innovation, mainly in citizen labs across Europe, academia has privileged singular case studies (Araújo, Penteado, and Santos 2021; Criado, Rojas-Martín, and Silván 2017; Gómez and Freire 2023; Romero Frías 2017) but paid scant attention to the systemic implications of experiments in citizen-led innovation. Thus, Domanski et al. are right to point out that ‘. . . the relationship between social innovation and social change remains a largely under-explored area in the social sciences as well as government innovation policies’ (Domanski, Howaldt, and Kaletka 2020, 460); as are Pel et al. (2020) in their admonition ‘. . . to move beyond anecdotal and fragmented empirical evidence’. This dissertation posits that what lack are attempts to see experiments in citizen-led innovation from the prism of their potential contribution to changes in stable structures – the ‘regimes’ - that govern innovation in European cities.

Two research streams now seek to bridge this gap. The first is sustainability transitions, focusing on how social innovation can reshape dominant regimes. In the words of Wittmayer et al.: ‘. . . The extent to which social innovation processes are transformative, or the extent to which they challenge, alter and/or replace dominant institutions (i.e. regimes) in the societal context, has been discussed by scholars at the intersection of both fields in the recent work on transformative social innovation’ (Wittmayer et al. 2024, 100805). The second stream is ‘urban innovation regimes’ (Ambrosino et al. 2022; Saez 2017), which builds upon classics of American urban political economy (Molotch 1976; Clarence Nathan Stone 1989). One insightful study in the wake of the pioneers was Harding’s application of urban regimes to a cross-national examination of five European cities (Harding 1997). More recently, another Ambrosino et al. (2022) studied urban innovation regimes in three cities - Grenoble, Nantes and Madrid. Their conceptual contribution resides in three theoretical, ideal types of urban innovation regimes: demonstration (Grenoble), experimentation (Nantes) and transformation (Madrid).

Over a decade ago, Frank Moulaert and Erik Swyngedouw asked whether social innovation ‘can save the city’ (Moulaert et al. 2010) – arguably, from its neoliberal course (Moulaert et al. 2007). This dissertation continues their call, exploring how radical social innovation, as embodied in citizen-led innovation, is changing entrenched patterns and norms of urban social

innovation. By doing so, I join two chores of voices: the scholars trying to cast a fresh light on the role of radical paradigms of innovation and the citizens and practitioners anxiously seeking to ‘save the city’ from the grip of hi-tech and entrepreneurial fantasies.

1.1. Aims, objectives and research questions

This dissertation aims to explore how forms of radical innovation have changed the landscape of urban social innovation in Spanish cities. To do so, it explores the case of five citizen-led innovation labs which have, since the late 2000s, invented and applied new forms of social innovation in response to urban challenges whilst also challenging entrenched practices, narratives and norms about how social innovation is produced. The analysis begins in 2007 with the creation of Citilab in Cornellà de Llobregat (Barcelona) and continues with a stronger emphasis on developments after 2015.

This overarching aim is split into three specific objectives:

1. To examine the forms of radical innovation developed by citizen-led innovation labs in Spain over the last two decades.
2. To assess the influence of territorial factors in shaping such forms of innovation.
3. To analyse how citizen-led innovation labs have transformed systemic features of social innovation in Spanish cities.

Each of the objectives above translates into one of the following research questions:

RQ1. What forms of citizen-led innovation have been produced by Spanish citizen labs?

RQ2. Which territorial factors have shaped how citizen labs innovate?

RQ3. In what ways have citizen-led innovation labs reshaped the structures, power dynamics and prevailing norms about social innovation in Spanish cities?

To address these questions, this dissertation examines five citizen-led innovation labs in Spanish cities: Citilab (Cornellà de Llobregat, Barcelona), Coboï lab (Sant Boi de Llobregat, Barcelona), Medialab Prado (Madrid), Medialab Tabakalera (Donostia) and Ciuta-lab Las Naves (València). A common feature of the five labs is that they identify their approach to innovation

as ‘citizen-led innovation.’ Another common feature is that all of them have ties, often of personal nature, with the Colaboratorio network of citizen-led innovation practitioners.

1.2. Outline of this work

This dissertation is structured as follows. Section 1 introduces the topic and situates this dissertation within a wider discussion about the nature and aims of social innovation. It also lays out the objectives and research questions that guide the dissertation. Section 2 reviews the relevant literature. The literature review is structured in line with the three research questions laid out in Section 1. The core analytical frameworks include a) what constitutes ‘citizen-led innovation,’ and how citizen-led innovation fosters social change; b) what territorial factors shape how social innovation is conducted in local, situated contexts; c) how social innovation may (or may not) transform deep-seated, entrenched features of how social innovation is performed and promoted by innovation ecosystems and regimes in cities. Section 3 briefly lays out the methods for data collection and analysis. Section 4 presents and discusses the main findings. The findings are structured in response to each of the research questions that guide this inquiry. Finally, Section 5 concludes by situating the findings in the broader framework of the issues raised in Section 1 and discussing potential avenues for further research.

2. Analytical framework

2.1. Citizen-led innovation: a new paradigm

Citizen-led innovation is a paradigm within the broader field of social innovation that stresses the role of ordinary citizens in innovation. Citizen-led innovation revolves around two paradigmatic ideas: a) an advocacy for civic involvement in innovation and b) a lesser focus on the impact (outcomes) in favour of the intrinsic value of the process itself. At the core of the paradigm lies the ordinary citizen, as the name suggests – not only as a dweller of the city, but most importantly as a bearer of civic rights and duties in the *polis*. From that perspective, citizen-led innovation challenges the dominant entrepreneurship paradigm which is paramount in smart city and other urban innovation discourses.

In the citizen-led innovation paradigm, citizens are no longer passive recipients of the developments produced by other ‘agents of innovation,’ but active actors in the definition of the purposes, norms and outcomes of the process (Pascale and Resina de la Fuente 2020). Co-creation and co-production, which treat citizens as integral partners in the design and implementation of policies and public services, are central to citizen-led innovation (Acevedo and Dassen 2016; McGann, Wells, and Blomkamp 2021; Voorberg and Tummers 2015). This notion is firmly rooted in a long tradition of participatory approaches, stemming from the 1960s, if not before (Schiavo and Serra 2013). Ordinary citizens have a direct stake in identifying problems, co-creating solutions, and experimenting with them – an approach inspired by user-driven innovation (von Hippel 2005), but carried further. As in other forms of social innovation—particularly entrepreneurship-led models—citizen-led innovation is not confined to experts or businesses (Chesbrough 2003).

All models of social innovation engage citizens in new combinations and configurations of social practices aimed at better meeting needs, driven by various actors from different sectors (Domanski, Howaldt, and Kaletka 2020). What sets citizen-led innovation apart from other forms of social innovation is its explicit and central emphasis on citizens actively driving and participating in the process. Whilst entrepreneurship-led models of social innovation can originate from businesses, non-profit organizations, or government (Windrum 2007), citizen-led innovation underscores the political agency of citizen, both individually and collectively, in generating and disseminating innovations.

The citizen-led innovation paradigm has yielded different organizational manifestations. Citizen laboratories (‘laboratorios ciudadanos’, in Spanish) and urban living labs are but two examples (Besson 2018; McCrory et al. 2020; Timeus and Gascó 2018). As some of the most prominent examples have demonstrated (e.g. Medialab Prado or Cítilab), labs oriented by the citizen-led innovation paradigm seek to address larger societal and policy problems but are more keen towards solutions inspired in ‘the common’ (Araújo, Penteado, and Santos 2021). Technology is still essential but is not at the centre nor an end by itself. Learning is oriented towards higher orders of learning, such as developing critical thinking (Bordignon 2017). Experimentation and collaboration, not competition, are also two key philosophical underpinnings (Pascale and Resina de la Fuente 2020, 11). Innovation is led by the user, not by the producer (Galaso 2013).

Thus, ‘... labs typically involve key stakeholders in a process of co-creation, crafting new solutions with people, not just for them’ (Carstensen and Bason 2012, 6). Citizen labs emphasize making the work of citizens visible and incorporating their ideas and perspectives (Gómez and Freire 2023). Amongst the many potential articulations of innovation labs (McCrory et al. 2022), citizen-led innovation labs choose to emphasize participation and cultural development, education in sustainable development, urban challenges and complex socio-ecological systems. This is a stark contrast to university, industrial or ‘smart city’ labs (Sangüesa 2013).

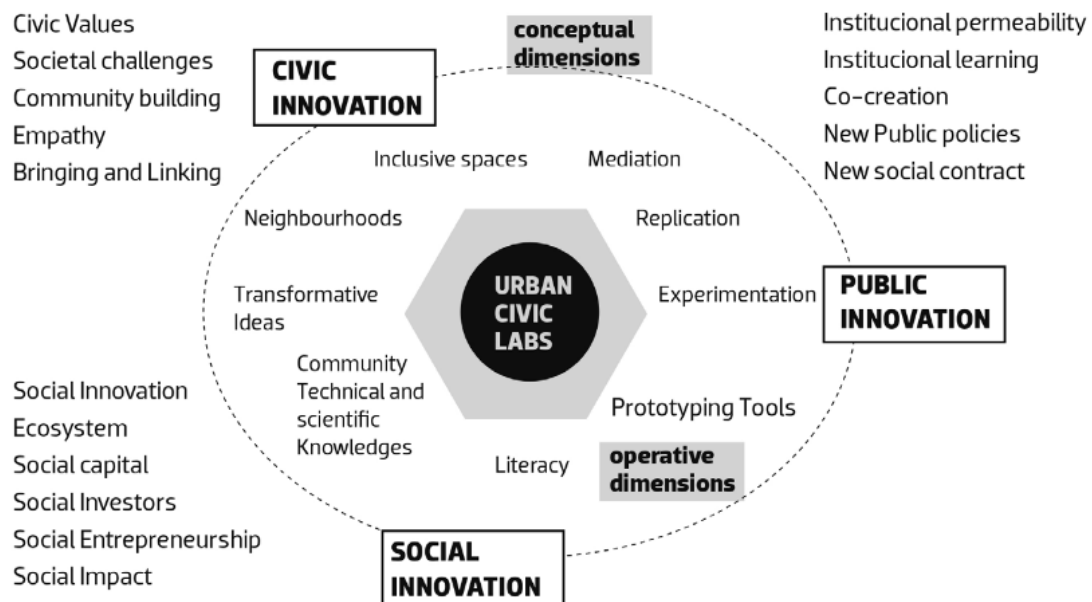


Figure 1: Citizen laboratories. Source: Mota and Ataíde (2023).

Citizen-led innovation also wishes to effect social change and produce lasting transformation in institutional setups. By involving citizens in problem-solving, particularly regarding complex or ‘wicked problems,’ citizen-led innovation aspires to challenge established norms and routines, drive the adoption of new social practices, and contribute to the redefinition of social relationships. By empowering citizens to take shared responsibility in shaping their future, citizen-led innovation wishes to act as an engine for change at the micro and meso levels. But

citizen-led innovation labs are also conceptualised as research-change intervention hybrids that can interact with system dynamics across scales (Ambrosino et al. 2022). Citizen labs thus promote collaborative governance and open innovation across geographical scales, policy settings and institutional environments (Resina 2019).

In this line, a systemic interpretation of citizen labs highlights their role as ‘intermediary infrastructures’ that provide sustained support and facilitate ecosystem building in local settings. The need of intermediary structures stems has long been recognized by innovation managers and policymakers: ‘. . . the potential of social innovation for responding to social needs cannot be fully exploited without supporting structures’ (Domanski, Howaldt, and Kaletka 2020, 466). Intermediary structures, if animated by a radical impulse, may help to institutionalize emerging forms of innovation, as the literature on intermediary structures in sustainability transitions has made abundantly clear (Kanda et al. 2020; Kivimaa et al. 2019). In its intermediary role, citizen labs may act as hybrid institutions that straddle what often appears as two independent logics: closed institutional settings and open ecosystems of multiple societal actors. Initiatives emerging from urban social movements, especially, are ideally situated to use citizen labs as a platform to disrupt dominant models and foster new articulations of urban governance. A third model of governance is thus born: bottom-linked governance – as opposed to top-down or bottom-up governance – that provides strong proximity, intermediation, independence, flexibility and effectiveness (Mota and Ataíde 2023).

In sum, citizen labs can become a driver of novel logics and forms of governance within existing systems and regimes of innovation, especially in cities with dense and dynamic ecosystems of both mainstream and radical social actors – a point that will be taken up in Section 2.3.

2.2. Territorial factors and social innovation

Social innovation happens in settings embedded in particular geographies, histories, socio-economic traits, cultures and, last but not least, institutional settings. These territorial factors directly influence the processes, outcomes, and sustainability of innovation processes (Moulaert 2009; Salom and Albertos Puebla 2009; Salom-Carrasco and Sánchez-Moral 2021). As in any innovation process, citizen labs shape and are shaped by the setting with which they engage.

One of the most significant territorial factors is geographic proximity. Proximity fosters dense networks of interaction and trust among stakeholders which make knowledge and ideas circulate more freely. In the case of citizen labs, proximity facilitates face-to-face collaboration, informal exchanges, and the building of social capital essential for sustained innovation. Urban areas, in particular, benefit from this dynamic. However, other forms of proximity beyond geographic nearness – i.e. cognitive, social, organizational and institutional proximity (Boschma 2005) – also bear upon the growth of social capital.

Shared cultural values and a tradition of civic engagement also shape how citizen labs operate. Territories with a strong culture of participation, mutual trust, and social solidarity are more likely to see active citizen involvement and to accept policies that embrace co-creation (UNESCO 2016; Zhu, Habisch, and Thogersen 2018).

Enabling governance structures in the territory and the presence of supportive policy frameworks are crucial for the outcomes of citizen labs. Local and regional governments that actively promote participatory innovation can significantly enhance the legitimacy and outreach of citizen-led innovation projects (Göbel et al. 2019). More open forms of governance can facilitate the coordination required by citizen labs, while inadequate structures may have the opposite effect (Klein 2009). In contrast, regions with weaker governance structures may struggle to mobilize local resources or foster collaboration among stakeholders.

In sum, citizen labs both shape and are shaped by a variety of territorial factors. These include cultural factors, as shared ideas, assumptions and narratives. Governance structures and policies are also crucial. All this points, again, to the issue of how citizen labs interact with existing norms and institutions in their settings, that is, with the innovation regimes in which they are embedded – the focus of the next section.

2.3. Urban regimes of social innovation

Urban innovation labs in Europe have been a rejuvenating force, fostering purposeful innovation, innovation in public management and innovation in public policies. Notions such as ‘government by experiment’ (Bulkeley and Castán Broto 2013) and multistakeholder and multilevel governance (Evans, Karvonen, and Raven 2018; Voß, Bauknecht, and Kemp 2006), which urban innovation labs pioneered, are now common currency across European cities. A

crucial point is that labs have managed to embed themselves within existing local institutions, thus making possible erstwhile improbable encounters between grassroots innovation and institutions (Fressoli et al. 2014). Most crucially, innovation labs have secured a degree of legitimacy as key intermediaries within urban innovation ecosystems (Hossain, Leminen, and Westerlund 2019; McCrory et al. 2020). By contrast, they have been less successful when it comes to scaling up their innovations onto public policies or institutional reforms (Acevedo and Dassen 2016; McGann, Wells, and Blomkamp 2021).

Public policies and institutional settings are governed by enduring norms, practices and narratives that shape the possibilities and the retention of new forms of innovation. In cities, the assemblages of norms, practices and narratives which govern urban trajectories have been understood as an ‘urban regime.’ An urban regime describes ‘the informal arrangements by which public bodies and private interests function together in order to be able to make and carry out governing decisions’ (Clarence Nathan Stone 1989, 6). Urban regime theory was articulated by Clarence Stone (1989) and Harvey Molotch (1976) in the United States, and subsequently applied beyond the US (Cugurullo and Ponzini 2021; Holman 2007; Mossberger and Stoker 2001; van Ostaaijen 2024), including Spanish cities (Molins and Medina 2018) – also Barcelona (Russo and Scarnato 2018). Most importantly for this research, urban regime theory has inspired scarce but promising inquiries into regime change via urban innovation in Madrid (Medina-García, de la Fuente, and Van den Broeck 2021) and Taipei (Chang, Sue-Ching, and Ming-Kuang 2021).

Drawing on the literature on urban regimes, the concept can be extended to coin the notion of ‘urban regimes of innovation,’ tentatively described as the informal and formal arrangements, coalitions, and governance structures through which key actors in a city collaborate to sustain innovation processes and outcomes. Studying arrangements, coalitions and governance structures can be understood as a three-fold analytical window to make sense how urban regimes work.

For the aims of this dissertation, three hypotheses can be put forth. First, one systemic outcome of citizen labs may lie in how they reshape the arrangements that underpin urban regimes of innovation – i.e. the ideological underpinnings and the not often explicit assumptions. As intermediary institutions, citizen labs function as critical nodes within urban innovation

ecosystems, fostering collaboration, experimentation, and knowledge exchange. As citizen labs tend to be more participatory and open than most existing institutions, they may contribute to institutionalize democratic norms such as transparency, co-creation, and civic agency, while challenging technocratic modes of governance. This transformation is not only about new procedures but also about new values: redefining legitimacy, redistributing power, and broadening how urban success is measured to include social equity and sustainability.

Second, citizen labs may reshape urban regimes of innovation by reshaping the coalitions that sustain them. Urban regimes are produced and reproduced by enduring coalitions between public officials, private elites, cultural leaders and civic actors. Urban ecosystems often conflate firms, universities, public institutions, and civic actors through networks and shared learning processes (van Winden et al. 2014). These coalitions largely influence which agendas are given public attention and whose interests are prioritized, often putting first agendas of economic growth and urban development. In this context, experiments and projects by citizen-led innovation labs may destabilise existing configurations of urban power by incorporating actors traditionally excluded from these coalitions—such as civil society groups, grassroots organizations, and knowledge institutions—thus altering the composition of urban regimes. Broadening or transforming the composition of urban coalitions, e.g. via creation of alternative coalitions, can help to reorient urban agendas toward inclusivity, sustainability, and the commons - a shift in what regime theorists call the ‘identifying agenda’ of governance (Clarence N. Stone 2001, 2004).

Third, citizen labs may reshape the governance structures that facilitate the task of governing innovation ecosystems. By breaking institutional silos, challenging bureaucratic protocols and upending customary ways of doing things, citizens labs, especially those embedded in public administrations, may lead by example whilst also contributing to the agendas of change of insiders and reform champions.

By interacting with the arrangements, coalitions and governance structures underpinning urban regimes of innovation, citizen labs may thus open up new avenues for the reconfiguration of urban political and institutional orders in ways that prioritize citizen participation, collective intelligence and solutions based in the commons.

3. Methods

This dissertation draws on evidence gathered through documentary analysis and semi-structured interviews, subsequently processed using thematic analysis to generate the findings laid out in Section 4. Prior to data collection, a round of scoping research, including one interview and documentary review, was conducted to probe the feasibility of the research design as well as to gain further acquaintance with the research topic.

3.1. Case study

This dissertation compares five urban citizen innovation laboratories in Spain: Citilab (Cornellà, Barcelona), Coboi lab (Sant Boi de Llobregat, Barcelona), Medialab Prado (Madrid), Medialab Tabakalera (Donostia), and Ciuta·lab (València). The chronology of the analysis stems from the foundation of Citilab in 2007 to the inauguration of Ciuta·lab in 2021. Albeit diverse, these labs share a commitment to citizen-led innovation and are in various ways linked to the Colaboratorio network of citizen-led innovation practitioners, which arose during the COVID-19 crisis.

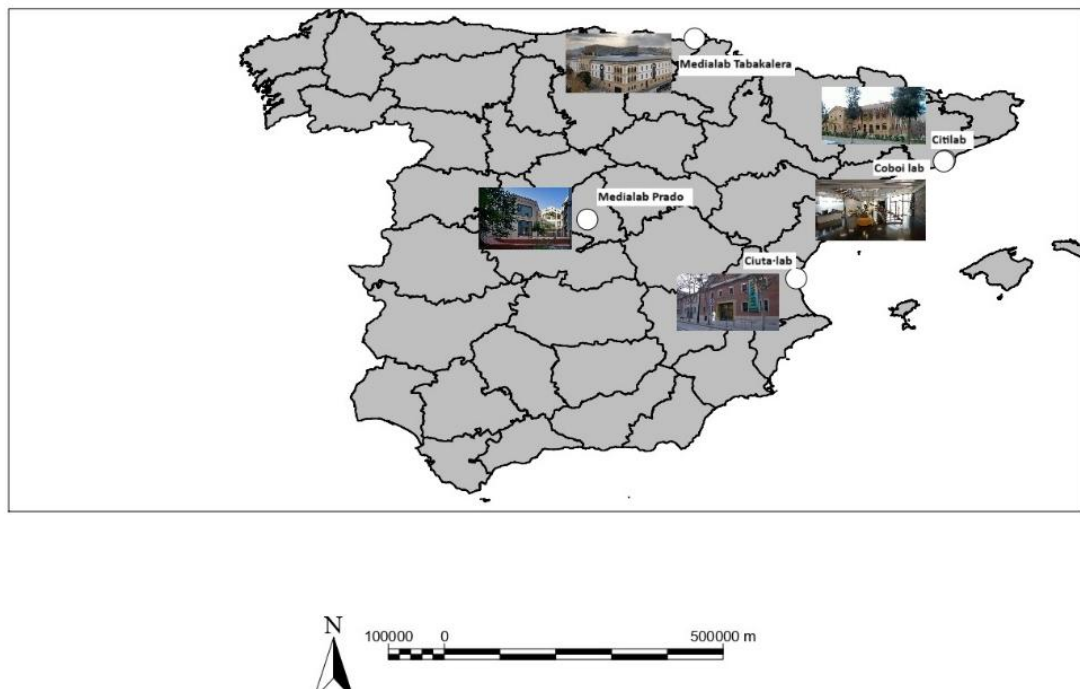


Figure 2: Citizens labs under study. Source: Own elaboration.

3.2. Research techniques

The study began with a scoping interview with Javier Ibáñez (Ciuta·lab) and a exploratory review of websites and documents was carried out in September 2024. Key themes were extracted from websites, institutional documents and reports from experts and public institutions in the urban innovation field – all of which are listed in Annex I.

The documentary analysis was complemented and triangulated via five online interviews (60–90 min), conducted from December 2024 to February 2025, with lab representatives: Laia Sanchez (Coordinator of citizen labs, Citilab), Sergi Frias (Coordinator, Coboï lab), Marcos Garcia (former Director, Medialab Prado), Ibai Zabaleta (Co-ordinator of Medialab, Tabakalera), and Javier Ibáñez (Co-ordinator, Ciuta·lab). Informants were selected for seniority and access, using snowball sampling. The interview script – see Annex II - was informed by earlier document analysis and the analytical framework.

Data from the interviews was analysed using a mixed inductive and deductive approach informed by the literature review. Themes were grouped into categories and iteratively refined. Findings were contextualised to ensure relevance to the research questions (Guest, MacQueen, and Namey 2012).

4. Results

4.1. Case study

Citizen labs in Europe are a remarkable development in urban social innovation. They have been extremely creative in the development of new innovation tools. Many of them have been born as an autonomous or semi-autonomous entity within a public administration, and receive funding from the public administration, but also from the private sector and, more unfrequently, from citizens. Finally, they have secured their own infrastructure, which offers a space for gathering, creative and strategic dialogue and, importantly, to gain visibility.

In Spain, citizen-led innovation labs took off in the late 2000s. As regards the five citizen labs in this study, the forerunner was Citilab (Cornellà de Llobregat), born in 2007. Citilab embraced citizen-led innovation since its onset. Thus, its inaugural aim was ‘not only to teach how to use technology, but to make it’ (Serra 2010), and, ultimately, to construct new structures bringing together people for cooperative learning and work, thus realizing universal literacy in technology and innovation (Schiavo and Serra 2013; Serra 2013). In 2012, the antecedent to the current Coboï lab was born, and both Medialab Prado and Hirikilabs (antecedent to Medialab Tabakalera) saw the light a year later. Ciuta-lab, explicitly inspired by Medialab Prado and other existing labs, was born in 2022. As citizen labs grew in number, regional networks started to emerge, such as Citilabs in Catalonia – hosting Citilab, i2CAT, 22@, BDigital, Guifi.net, Tecnocampus Mataró and Neàpolis - and Andalabs (8 laboratories) in Andalusia (Romero Frías 2017). Beyond Spain, the Red Iberoamericana de Innovación Ciudadana - which promotes the ‘Laboratorio de Innovación Ciudadana’ method – was also born out of this movement.

	Location	Foundation	Budget
CitiLab	Cornellà de Llobregat	2007	1,3 m€ (2024)
Coboï lab	Sant Boi de Llobregat	2012	N/A
Medialab Prado	Madrid	2013	2,3 m€ (2016)
Tabakalera	Donostia	2013	7,5 m€ (2023)
Las Naves Ciuta-lab	València	2021	~300 000 €

Table 1: Profile of the five Spanish citizen labs. Source: Own elaboration.

Urban innovation labs in Spain gained more traction after 2015, thanks to the wave of renovation of urban ideas in the aftermath of the municipal elections of that year. In the 2015 elections, many large and small cities - broadly categorized as “ciudades del cambio” – elected majors with political manifestos more loosely or closely associated with the ‘Indignados’ movement and its party then, Podemos. The social climate, still deeply affected by the 2007/08 social crisis and the rise of the ‘Indignados’ movement, called for radical changes, and mayors and councillors in “ciudades del cambio” sought to impress a more radical direction to urban innovation policies. In the wake of 2015, new urban innovation labs were created and existent labs refashioned. That was the case of MediaLab Prado (Madrid) or Las Naves (València)

(Araújo, Penteado, and Santos 2021; Criado, Rojas-Martín, and Silván 2017; Gómez and Freire 2023; Romero Frías 2017), which adopted citizen-led innovation in their programmes.

4.2. Forms of citizen-led innovation in Spain, 2007-2024

In response to Research Question 1, this section presents how each of the five laboratories has put into practice citizen-led innovation. Unless otherwise specified, verbatim citations within single quotation marks have been taken from the interviews. Terms within double quotation marks point to concepts originally expressed in Spanish, Catalan or Basque.

4.2.1. Citilab (Cornellà de Llobregat, Barcelona)

Citilab is a citizen laboratory dedicated to social and digital innovation, located in Cornellà de Llobregat (Barcelona), in the former Can Suris textile factory, a building originally constructed around 1897. After the factory closed in 1978, the municipality acquired the premises in the early 2000s. Citilab opened its doors in November 2007, thus becoming the first, pioneer citizen-led innovation lab in Spain.

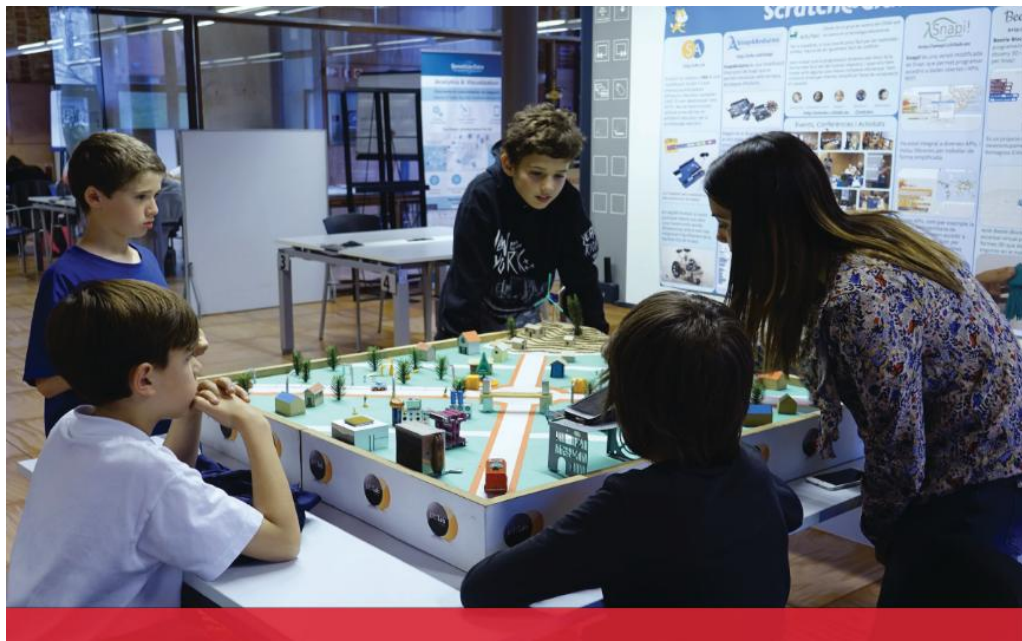


Figure 1: Users of Citilab. Source: Citilab (2018).

Citilab functions as a hybrid space that combines training, research and the incubation of new business and social initiatives. It aims to promote social cohesion through democratic access to information, citizen participation and community creation. Citilab offers three main innovation spaces. Open Surf is a spacious, free-access browse room open to all citizens, where everyone can access and explore digital and online resources. Labworking is a coworking area, designed to host and actively support the development of vibrant and burgeoning projects, fostering a collaborative environment for innovators. Finally, the “¿Hacemos un café?” format functions as a social hub, where people can take a break from work, and engage in informal interaction and networking.

Citilab distinguishes itself through a profound commitment to developing citizen competencies for innovation across the entire lifespan, ensuring that no one is left behind in acquiring digital and creative skills. This educational focus is woven into its fabric, aiming to ‘generate contexts for training’ for all. Unlike labs that might primarily target specific demographics or project types, Citilab’s approach is holistic, as exemplified by programming and robotics education for young children. This nurturing of skills directly feeds into its strength in creating and fostering communities of practice and learning (in Spanish, “Comunidades de Aprendizaje y Práctica (CAP)”). The Senior Lab stands out as a testament to this, a dynamic community where older adults actively develop projects, learn, and collaborate, showcasing the lab's belief in diverse, citizen-led teams as engines of value and active participation.

While sharing the broader citizen lab movement’s goals of practical experimentation and promoting citizen-led solutions, Citilab places particular emphasis on promoting citizens as protagonists and co-designers. It strives to entice individuals from being mere recipients of services to becoming active shapers of their environment, co-designing policies and cultural programs. This is supported by a conscious effort in constructing a transferable discourse and methodology, ensuring their approaches are well-communicated and can inspire wider adoption. Citilab’s dedication to extending the culture of participation and citizen-led innovation further underscores its ambition to embed these practices deeply within society, with the ultimate goal of making citizen-led innovation a common, rather than an exceptional, occurrence.

4.2.2. Coboï lab (Sant Boi de Llobregat, Barcelona)

Coboï lab is a pioneering public innovation laboratory in Sant Boi de Llobregat (Barcelona), dedicated to collaboratively tackling urban challenges within the territory. Initially founded in 2012 to support social economy and entrepreneurship, it began as a platform for fostering social innovation through economic initiatives. Over time, however, the lab expanded its scope beyond entrepreneurship to include broader forms of social innovation—incorporating third-sector actors and citizen-led initiatives aimed at generating social impact. In 2018, it evolved into a public innovation laboratory, and a year later, in 2019, Coboï lab opened its doors at the Centre de Serveis, becoming a central meeting point for the area's diverse socio-economic actors, with “Espai BETA” as a reference for the interaction of social and economic agents. Today, Coboï lab positions itself squarely within the realm of public innovation, functioning as a strategic tool for the City Council and the local administration to innovate in public policies.



Figure 2: Participatory workshop at Coboï lab. Source: Coboï lab.

This current focus emphasizes collaborative approaches to addressing urban and territorial challenges. Rather than working in isolation, Coboï lab brings together a wide range of stakeholders—from public officials and civic organizations to businesses and academic actors—

to co-create responses to complex problems. The lab's strength lies in facilitating multi-actor collaboration through its own structured methodology, known as "4>17", which guides diverse stakeholders through participatory processes designed to produce actionable outcomes. In this way, Coboï lab acts not only as a think tank but as a hands-on innovation space where governance becomes a shared task.

At the heart of Coboï lab's model is the idea of optimizing and transforming public administration. Innovation here is not just about saving money or introducing new tools. It is primarily about rethinking how institutions work. The lab helps to redesign processes, update organizational cultures, and establish new relational dynamics within public systems. An example of this is its pilot billing management protocol, which was not only aimed at efficiency but also at enhancing communication and collaboration between internal departments and external partners.

Closely tied to this is Coboï lab's commitment to constant experimentation. The lab sees itself as a place where new ideas are continuously tested, adjusted, and refined to keep ahead of emerging challenges. This commitment to ongoing testing is what enables Coboï lab to function as a cutting-edge space for public policy innovation, ready to anticipate and respond to the evolving needs of its community and territory.

Moreover, Coboï lab is deeply invested in creating new relational spaces. It seeks to offer neutral, welcoming environments where different actors—citizens, policymakers, researchers, and entrepreneurs—can come together outside traditional bureaucratic or academic settings. This open atmosphere encourages unexpected collaborations and breaks down silos that often hinder innovation in institutional contexts.

Finally, a defining trait of Coboï lab is its insistence that creativity must be paired with method and rigor. The lab does not treat innovation as spontaneous inspiration alone but works hard to systematize knowledge and apply structured methodologies to public sector challenges. Whether by co-creating solutions to local issues or by refining internal processes, Coboï lab documents, evaluates, and shares its learnings to ensure that they remain useful beyond a single project.

4.2.3. Medialab Prado (Madrid)

Medialab Prado, a cultural initiative of the Madrid City Council, was born in 2000, and officially re-named Medialab Madrid in 2002. In April 2013, it was fully renovated in the historic Serrería Belga building and re-labelled as Medialab Prado. Medialab Prado soon became a vibrant citizen laboratory intent on producing, researching, and disseminating cultural and social projects at the intersection of art, science, and technology. Its focus was collaborative experimentation, for which it drew inspiration from digital networks and free culture. One of its most remarkable spaces was the “Laboratorio del Procomún” (Commons Lab), but it also hosted other labs fostering citizen-led innovation.

In 2021, Medialab Prado was relocated to the Matadero Madrid cultural complex and subsequently renamed Medialab Matadero. With the new name came along fresh priorities and a change in orientation. Medialab Matadero is now closer to the model of the arts and culture centre, and has a more structured, thematically-driven approach. This differs from Medialab Prado’s original open-call, citizen-led model that was broadly focused on digital commons and citizen-led innovation.

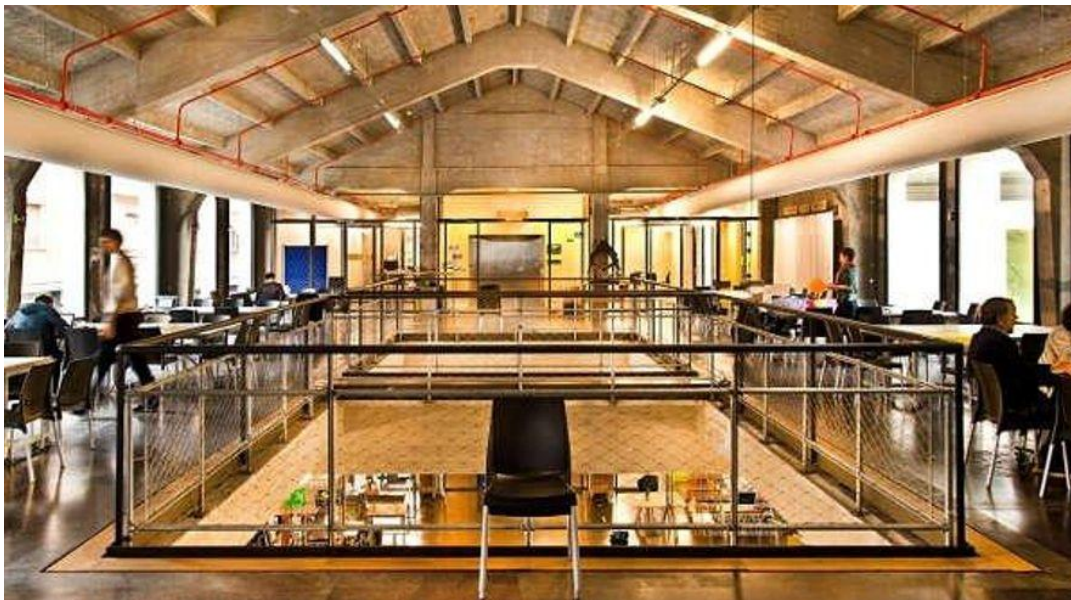


Figure 3: Medialab Prado. Source: Medialab Prado.

Before 2021, Medialab Prado was characterized by its ambition to drive radical urban transformation, aiming for deep, disruptive changes in the city. Its distinct approach meant transforming cultural spaces into collaborative production hubs, thus moving beyond traditional content provision to become a dynamic ‘space for experimentation and collaborative production,’ heavily inspired by ‘free culture and free software.’ Furthermore, Medialab Prado was a forerunner in developing a stable infrastructure for citizen innovation and in promoting open collaborative creation. Its ‘call for collaborators’ rapidly became a model for other citizen labs – e.g. Ciuta·lab, in Valencia. Medialab Prado would begin each thematic workshop cycle (e.g., on digital culture, urban innovation, data visualization, etc.) with a public call for project proposals. Individuals or groups were invited to submit ideas aligned with the chosen theme. Once the promoted projects were selected, a second open call was launched: the call for collaborators. Anyone, regardless of background, could apply to join one of the selected project teams. Selected project promoters and their new teams of collaborators would then participate in an intensive, face-to-face workshop, often lasting 10–15 days. At the end of the workshop, teams would present their prototypes to the public and often publish their results on Medialab Prado’s website. All in all, the call for collaborators was as much about building communities as it was about producing projects.

Medialab Prado also emphasized creating widely replicable open methodologies and decentralizing citizen-led innovation to district levels. This was crucially channelled through projects like “Experimenta Distrito.” This project aimed at prototyping new, stable district public policies by bringing the lab model to neighbourhoods. Alongside, public innovation was fostered by integrating the collaboration of citizens and municipal officials in projects like “Madrid Escucha.” The program aimed to create a neutral space where citizens and municipal employees could engage in dialogue, co-design solutions, and develop prototypes to be adopted by the municipality. The 2017 edition resulted in projects such as transforming school rooftops into environmental classrooms, creating shared childcare spaces, and designing collapsible benches for narrow streets to aid the elderly. The 2019 edition was focused on sustainable urban mobility. “Madrid Escucha” left a legacy of co-creation in public policy development and influenced subsequent participatory initiatives within and beyond Madrid.

4.2.4. Medialab Tabakalera (Donostia)

Medialab Tabakalera, part of the larger Tabakalera cultural center in San Sebastián, functions as an open citizen laboratory committed to democratizing access to tools, knowledge, and spaces for experimentation. Building on the legacy of Hirikilabs—founded in 2013—this lab was conceived as a space for individuals and communities to explore, create, and innovate in collaborative ways. In 2019, Hirikilabs (citizen lab) and UBIK (the creation library) were merged, giving birth to the current Medialab Tabakalera. The merge created a new ‘library-laboratory’ concept. This integration was very important as it reshaped the mission of the citizen lab, by re-embedding the digital and technological innovation culture within a broader contemporary arts context.

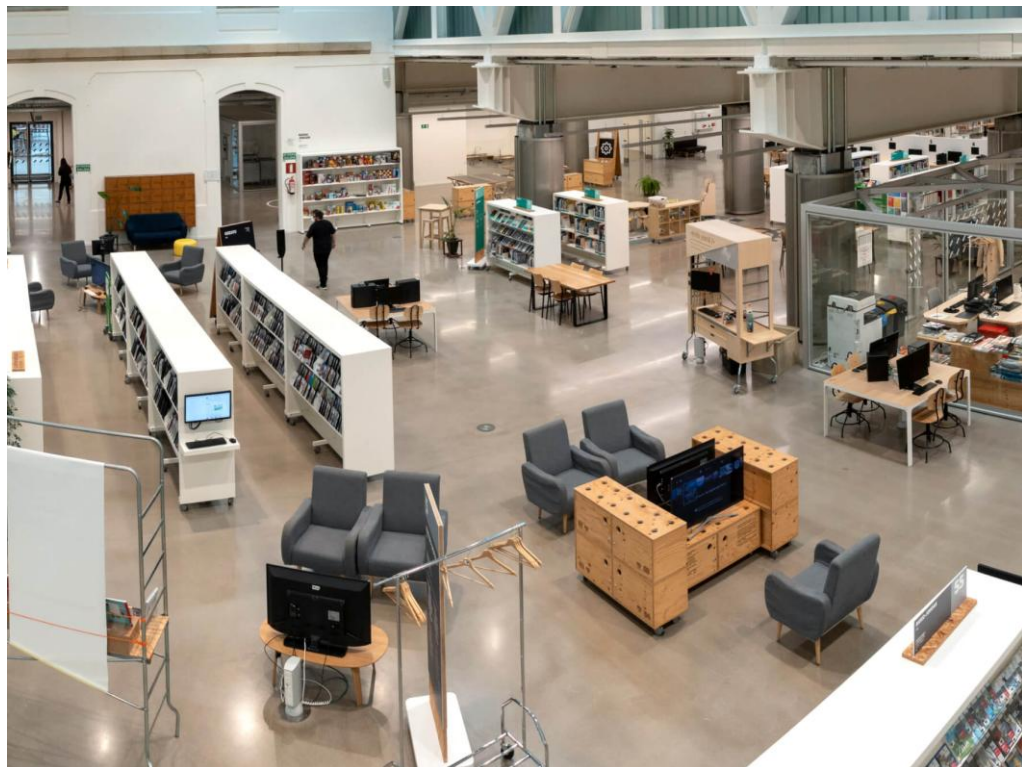


Figure 4: Medialab Tabakalera. Source: Tabakalera.

Medialab Tabakalera’s approach emphasizes inclusivity and open participation. Prominent tools include diverse creation ‘corners’ equipped for digital manufacturing, audiovisual production, electronics, and self-publishing, alongside a dynamic program of workshops, open

calls for projects, exhibitions, and initiatives focused on social inclusion and community engagement. A core principle is the provision of tools and resources, making technologies such as 3D printers, sewing machines, and digital fabrication tools accessible to the public. To foster collaboration, the lab has organized ‘match’ dynamics akin to speed dating, bringing together people with complementary skills—designers, coders, artists, researchers—to spark new project groups and communities. Examples include textile experimentation communities, environmental research teams, data-driven investigations like ‘The Airbnb Effect,’ and even citizen astronomy initiatives that build tools like radio telescopes or launch weather balloons. From sustainability-focused cooking hacks to assistive technologies for the visually impaired, the innovations produced are diverse, hands-on, and deeply experimental. The emphasis is not on polished products but on enabling citizens to engage with real-world challenges through ‘somewhat innovative processes.’

The founding principle was to be a space that ‘has tools and it makes them available to people,’ facilitating collaboration through ‘match’ dynamics like speed dating. This open-access, tool-rich environment is a cornerstone of its identity. A key differentiator is its proactive effort in broadening the audiences, the topics, and in transferring practices to diverse communities. It consciously works to avoid becoming a ‘geeky niche,’ developing programs for children and families, thereby broadening the traditional ‘maker’ audience and ensuring that citizen-led innovation practices are shared across varied community segments. One notable initiative developed targeted activities for children aged 0–6 in the Egia neighbourhood, based on direct community demand. This shift towards inclusion has led to a broader focus on STEM education, family-friendly programming, and the adaptation of the maker culture to diverse social contexts.

Recognizing that institutional validation is not always forthcoming, the lab has developed its own language and narratives to assert that citizens are not just participants but producers of innovation. This discourse-building has been reinforced by media visibility—such as coverage of the Airbnb data project—and is seen as essential to elevating the value of everyday innovation by ordinary people.

While it shares the common goals of facilitating collaborative projects and developing practical solutions with other labs, Medialab Tabakalera is also distinct in its role as a tool for the

cultural and creative ecosystem. Medialab Tabakalera supports artistic and interdisciplinary projects by offering both infrastructure and a reflective space for creators. It explores intersections between citizens, artists, and institutions, challenging the dominance of large cultural industries and promoting the contributions of smaller, independent creators. Being embedded in the Tabakalera International Centre for Contemporary Culture, it functions as an ‘internal tool’ for artistic projects and engages in reflection on creative industries, emphasizing smaller creators. This integration within a larger cultural institution shapes its operational context and outreach.

4.2.5. Ciuta·lab (Valencia)

Ciuta·lab, the citizen laboratory of Las Naves (Valencia City Council's innovation center), was founded in 2021, but almost completely ceased to function in mid-2023, after the change of local government. Located in Valencia, it served as a dynamic space for participation, research, and innovation, bringing together individuals with diverse knowledge to experiment and co-create solutions. Ciuta·lab was strongly connected to the ‘Missions València 2030’ strategic framework, Valencia’s innovation framework to achieve climate neutrality by 2030 – as part of the European Union urban climate mission.



Figure 5: Workshop at Ciuta·lab. Source: Ciuta·lab.

Rather than working on abstract ideas, Ciuta·lab focused on practical, often small-scale solutions with the potential for broader systemic impact. Key areas of activity included energy communities, urban gardens and agriculture, re-naturalization of urban spaces, and circular economy strategies—all rooted in local contexts and needs.

Ciuta·lab drew on the notion of the four helixes of innovation—public sector, private sector, academia/research, and civil society—but complemented it with a citizen-centric approach to collaborative problem-solving and fostering commons solutions to urban issues. Ciuta·lab thus championed values of collaboration, experimentation, openness, and care. Key programs included approaches borrowed from other Spanish citizen laboratories. Thus, for instance, the “Talleres de Producción Colaborativa” (Collaborative Production Workshops) and CAPs (“Comunidades de Aprendizaje y Práctica”) – both borrowed from Citilab and Medialab Prado – launched in 2022 and 2023, respectively, in the framework of Valencia's climate and social goals.

One of the defining features of Ciuta·lab was its commitment to fostering collaboration across diverse segments of society. The lab intentionally brought together a wide variety of actors: migrants, civil servants, doctoral students, professionals from the productive sector, and citizens of different ages. This diversity was not incidental but central to the lab's purpose. Ciuta·lab operated on the belief that effective solutions arise from the interaction of people with different backgrounds and perspectives. By encouraging this kind of cross-sectoral dialogue, it sought to build new community ties and promote enduring collaborative networks.

Beyond problem-solving, Ciuta·lab also served as a space for rethinking public institutions. It acted as a testing ground for new modes of governance and public engagement that break away from traditional, hierarchical models. The lab was structured around principles of experimentation, openness, and co-creation, offering a concrete example of how public institutions could evolve to become more responsive and trustworthy. Participants and facilitators alike saw Ciuta·lab as a way of ‘prefiguring’ institutions that operate differently—where testing and learning are not exceptions but part of their core logic.

Another central ambition of Ciuta·lab was to change the narrative and practice of innovation. Rather than reinforcing the dominant, expert-driven model associated with corporate research and development or with academic labs, Ciuta·lab sought to democratize innovation processes.

It aimed to involve a broader spectrum of society in imagining and building transformation—whether or not technology was at the centre. By opening up the ‘how’ of innovation to non-experts and valuing community knowledge, Ciuta-lab promoted alternative, inclusive ways of addressing urban challenges.

4.3. The role of territorial factors

This section presents findings for research question 2 - how territorial factors shaped forms of innovation.

The development of Spain’s urban citizen labs was deeply shaped by their territorial embedding, municipal relationships, and evolving institutional contexts. All five labs—Citilab, CoboiLab, Medialab Prado, Medialab Tabakalera, and Ciuta-lab—maintained strong ties to their local governments, often operating within or in close collaboration with city councils. These relationships had a strong bearing in their funding and strategic orientation. They also moulded their capacity to adapt to political change and respond to local needs. In several cases, such as Citilab and CoboiLab, municipal backing provided both stability and constraints, as labs shifted priorities in line with changing departmental oversight or political leadership.

A common feature is their responsiveness to local challenges and their efforts to anchor innovation in community needs. Citilab’s work with schools and seniors in Cornellà, and CoboiLab’s collaborations with entities like Suara and the Gasol Foundation, illustrate their place-based orientation. Similarly, Medialab Prado adapted its programming to neighbourhood-level issues in Madrid through “Experimenta Distrito”, while Ciuta-lab in València based much of its activity on existing community projects.

However, the degree of autonomy and strategic purpose varied significantly. While some labs, like Ciuta-lab and CoboiLab, were tightly woven into their municipal innovation ecosystems, others like Medialab Prado and Tabakalera pursued broader institutional and methodological ambitions. Medialab Prado, in particular, was very active in exporting its collaborative innovation methods nationally and internationally – e.g. via networks of Latin American citizen labs. In contrast, CoboiLab and Citilab maintained a more locally rooted focus, working consistently with territorial actors and adapting to their needs.

The political context from the early 2010s through 2023 shaped lab trajectories in distinct ways. Medialab Prado benefitted from a temporary window of institutional support after 2015, during the municipal administration of Mayor Manuela Carmena, but also saw its position threatened by subsequent political shifts that brought the Partido Popular into office in 2019. In Donostia, Medialab Tabakalera operated within a more cautious political culture, influenced by the Basque Country's preference for endogenous initiatives and sensitivity around civic engagement tied to broader ideological currents. This affected both how their work was perceived and the extent to which they could freely engage in politically charged initiatives and networks beyond the Basque Country.

4.4. Transformations in urban regimes of social innovation

This section presents the main findings in response to research question 3 – the impacts of citizen laboratories upon urban regimes of social innovation.

The nature and degree of transformations varies widely across the laboratories. Across Spain's citizen innovation labs, a shared ambition was to reform public institutions through civic experimentation, but each lab took distinct routes shaped by its local ecosystem. Citilab in Cornellà saw and continues to see itself as a “new type of institution” seeking to transform others—schools, libraries, and museums—by inspiring them with its collaborative approach. Projects like “Recerca i Innovació Educativa de Ciutat” and the consolidation of the “Open Surf” community space reflect its drive to normalize citizen-led innovation as a permanent feature of public services. A significant aspiration for Citilab was the radical reconfiguration of educational systems, envisioning universities and schools functioning as citizen laboratories. Citilab is thus committed to institutionalizing innovative practices within local public structures, going beyond isolated projects to embed new approaches into the routine functioning of public services. The idea was that transformative ideas would have to ‘stay’ to create lasting structural and normative influence on the broader social innovation system, even if individual labs were to disappear. ‘Taking significant care to clearly explain what we do’ played a key role, ensuring that the practices were not only effective but also seen as legitimate and transferable.

CoboiLab also worked from within but focused more explicitly on process and administrative reform. It introduced structured methodologies like the ‘4>17’ model to systematize innovation

and applied them in high-impact initiatives like the ‘post-COVID city pact’. Beyond ideas, it engaged with concrete internal bottlenecks such as invoice management, bringing creativity to the day-to-day workings of public administration. Though sometimes perceived as intrusive, this “positive interference” prompted reflection and redesigns in other departments. Its direct reporting to the mayor’s office gave it agility and influence (the ‘Y’ variable), while its carefully curated physical space encouraged collaboration between citizens, businesses, and academia—positioning it as a territorial actor, not just an internal tool. Cobo lab, however, also faced the challenge of fully institutionalizing its role and becoming ‘mainstream,’ struggling against the perception of innovation as dispensable and the constant dependence on ‘political will’ to secure resources for broader, sustained impact.

Medialab Prado explicitly sought to distance itself from technocratic or entrepreneurial models and instead creating an open, prototyping-based approach to innovation. Its call for collaborators methodology redefined cultural institutions as platforms for public creation and reconfigured participation by inviting a broader range of voices into the innovation process. Under Mayor Manuela Carmena after 2015, this model gained institutional traction, influencing participatory budgeting and inspiring district-based experiments like “Experimenta Distrito.” Prado sought not only to influence policy but also to build a distributed, civic infrastructure for innovation, avoiding traditional lobbying in favour of networks ‘from below.’ However, the continuity of its influence proved dependent on political cycles and faced challenges with institutional ‘permeability,’ leading to a later focus on fostering direct collaborations with communities, hoping for a ‘contagion’ effect.

Similarly, Medialab Tabakalera reshaped its institutional role within Donostia’s Tabakalera cultural center by shifting its focus from audiovisuals to open citizen experimentation. The lab became a key agent in engaging citizens on open government issues for the Basque Government, becoming a ‘go-to place’ for the Basque Government to engage citizens in a ‘super informal way, but...real,’ contrasting sharply with tokenistic ‘fake participation processes. Through specific projects like its Airbnb data analysis, the lab successfully influenced public and political debate, demonstrating how citizen-generated knowledge can ‘quite shake things up’ and give new voices relevance in urban issue discussions. Nonetheless, it operated within a context of political caution, where preference for homegrown initiatives limited its influence within national networks like Colaboratorio, even if some ideas, like Raúl Oliván’s “hexagonal

libraries,” were selectively adopted when they fit local preferences. While engaging with broader networks like “Frena la Curva” and Colaboratorio fostered valuable ‘personal alliances,’ the lab experienced institutional hesitancy and resource challenges in gaining significant traction in these larger networks, particularly given the Basque Country's preference for local initiatives over direct influence from state-level entities.

Ciuta-lab in València carved out its own niche by aligning with the city's climate mission and acting as a node in a dense ecosystem of existing actors—migrants, parent associations, and energy communities. Its long-term goal envisioned a multi-scalar territorial system, where local labs would feed into a broader ecosystem of experimentation and social transformation. While the internal transformation of city administration that achieved was rather limited, its primary contribution lay in building legitimacy for citizen-led innovation. It actively involved municipal officials in participatory processes and leveraged external networks like Colaboratorio to gain recognition and support. Through collaborations with labs like Medialab Prado and the Basque Colaborabora, it demonstrated the value of importing proven methods rather than starting from scratch.

Finally, the Colaboratorio network helped put citizen-led innovation on the national agenda, contributing to its public, political, and media recognition. The credibility of established labs helped to mobilize institutional backing to citizen-led innovation in other cities. Beyond their local contexts, these labs promote a broader vision of public institutions as open, experimental, and collaborative. By introducing novel practices, they disseminated the notion that ‘public institutions can be different.’. Colaboratorio's engagement with national ministries, although discontinuous, and the organization of several workshops across Spain in the last two years reflects a strategic effort to influence policy discourse.

Together, these labs illustrate different pathways toward institutional change. Some worked from the inside out, others from the outside in. Some prioritized embedding practices in local government, whilst others focused on transforming the meaning of innovation itself. All of them nonetheless shared a belief that public institutions must be changed and that labs, when rooted in local realities and connected through broader alliances, can catalyse that shift.

4.5. Summary of findings and discussion

This dissertation set out to explore the new forms of social innovation produced by citizen labs. From this perspective, the dissertation has found a variety of new approaches to innovation that have sought to involve and empower citizens. These laboratories have actively engaged with urban challenges, integrating individual, collective, and affective knowledge, while foregrounding citizen protagonism and a commitment to institutional transformation as a means of reshaping urban social innovation. In this respect, they have succeeded in consolidating a recognizable and increasingly recognized discourse around citizen innovation, accompanied by identifiable practices aligned with the paradigm of ‘innovation with people.’ Citizen labs have also gained terrain in the legitimization of the citizen innovation paradigm. Drawing on sustainability transitions theory (Geels, 2005), these efforts could be interpreted as the emergence of an innovation niche that seeks to challenge dominant how urban regimes go about performing social innovation.

This dissertation also sought to analyse how territorial factors have shaped citizen labs and vice versa. From this point of view, it has found that each lab developed in close relation to its local political, institutional, and socio-cultural context. Citilab (Cornellà) aligned its activities with municipal priorities, such as education and community engagement, benefiting from strong institutional backing and a consistent local communication strategy. Similarly, Cobo lab (Sant Boi) was shaped by its integration into municipal structures, with its scope shifting alongside political priorities. Its physical space and local prestige facilitated cross-sectoral collaboration within a territorial ‘quadruple helix.’ Medialab Prado (Madrid) exemplified how political windows—particularly during the rule of Mayor Carmena—enabled municipal alignment and methodological diffusion. Its decentralized “Experimenta Distrito” model further embedded innovation within diverse local contexts. In Donostia, Medialab Tabakalera's operations were conditioned by Basque political idiosyncrasies, institutional expectations, and regional caution towards citizen initiatives. Finally, Ciuta-lab (València) embedded itself within the city's climate mission, leveraging existing social networks and regional collaborations, while drawing on national peer networks to legitimize and expand its work. The five cases help to show the relevance of territorial variables, from political will to local narratives, through institutional structure or existing ecosystems in shaping the agency, strategic positioning, narratives and practices of citizen innovation labs.

Lastly, this dissertation also set out to inquire about the impact of citizen laboratories in norms, practices and relations in urban regimes of social innovation. In this regard, this inquiry has found that while citizen labs have exerted a noteworthy influence on the design of certain public policies—gaining entry through the ‘window’ of citizen participation—this influence has remained largely confined to specific sectors and has not yet consolidated over time, when not outrightly brushed away by changes in local governments. Institutional transformations appear even more constrained, notwithstanding some notable advances within certain institutions, particularly in the more established Catalan laboratories. Overall, findings suggest that the impact of these initiatives remains largely restricted to their own niche, or at the very least, that their broader influence will require additional time to materialize more tangibly. This observation opens up a potential line of future inquiry into the longer-term and systemic effects of urban citizen laboratories on urban innovation regimes.

5. Conclusion

This dissertation aimed to explore how the wave of citizen-led innovation labs in Spain, starting in the late 2000s, helped to develop new forms of social innovation in response to urban challenges and, along the way, challenged and transformed entrenched practices, narratives and norms of social innovation in Spanish cities.

Findings show that citizen innovation labs have generated new forms of social innovation grounded in collaboration, empowerment, and institutional critique. These labs have been able to articulate a shared yet diverse discourse around ‘innovation with people,’ in contrast to innovation for people or for profit. Findings show the potential of citizen-led innovation to reconfigure urban innovation paradigms, responding to the growing disenchantment with top-down, technocratic models such as the smart city. As discussed in the Introduction, the smart city paradigm—once heralded as a transformative vision—has fallen short of its promises, becoming synonymous with corporate-led governance, data-driven managerialism, and elite-oriented growth (Rabari and Storper 2015; Glaeser 2011). In this context, citizen-led innovation emerged and consolidated itself in innovation circles – arguably, less so beyond them - as an alternative paradigm, rooted in democratic participation, localized knowledge, and social

transformation. All in all, this suggests the emergence of a niche within the urban social innovation landscape, one that diverges from dominant entrepreneurial and technological models and that may contribute, as sustainability transitions theory suggests (Geels 2005), to reconfiguring established regimes.

Findings also show the importance of territorial embeddedness. The labs studied—Citilab, Coboi lab, Medialab Prado, Medialab Tabakalera, and Ciuta·lab—have each evolved in response to their local political, institutional, and socio-cultural environments. Whether through Catalonia’s strong municipal commitment to innovation (Citilab, Coboi), Madrid’s shifting political opportunities (Medialab Prado), the cautious institutionalism of the Basque Country (Tabakalera), or the strategic alignment with the climate mission in Valencia (Ciuta·lab), territorial factors have proven critical in defining what these labs can do—and how they are perceived.

Finally, findings about the impact of citizen labs on urban regimes of social innovation present a mixed picture. While these labs have influenced public policy design and expanded the boundaries of what constitutes legitimate innovation, their capacity to challenge entrenched institutional logics remains limited. Their systemic impact is still in gestation, largely confined to protected or experimental niches. Yet their continued existence, evolution, and alignment with broader civic and institutional agendas suggest a latent potential to influence on urban innovation in the long term.

Future research might do well to explore further how citizen-led innovation labs innovate, but also how such innovations impinge and change the existing practices, discourses and structures that govern social innovation in cities. The emerging concept of the ‘urban innovation regime,’ with its focus on arrangements, coalitions and governance structures has been helpful to structure the exploration in this dissertation. It can be of further much help in future scholarly inquiries.

Citizen-led innovation labs, and radical innovation in general, may have not yet ‘saved the city.’ However, in a relatively short period of time they have succeeded in equipping themselves with a set of tools, narratives and visions that define the contours of a clearly recognisable niche of social innovation. How, or whether, this niche will scale up, and whether this is desirable – and some interviewees in this dissertation would strongly disagree – remains to be

seen. Nevertheless, the achievements to date reflect the vitality of the radical innovation camp and suggest that in the ongoing contention with technological and entrepreneurial forms of innovation the radical field is well positioned to make further inroads – ultimately for the common good.

6. References

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Annex I. Documents and websites reviewed

Lab	Date	Document	Link
Citilab	Undated	Qui som	https://www.citilab.eu/
Citilab	2016	Memòria Executiva 2015	https://www.citilab.eu/wp-content/uploads/2016/07/Memoria_Executiva_-_Pla_Accio_2015.pdf
Citilab	2016	Pla d'Acció 2016	https://www.citilab.eu/wp-content/uploads/2016/07/Memoria-Pla-dAccio%C3%B3-2016-v2.0-Final.pdf
Citilab	2017	Memòria Pla d'Acció 2017	https://www.citilab.eu/wp-content/uploads/2018/04/Memoria-executiva-2017-.pdf
Citilab	2019	Pla d'Acció 2018	https://www.citilab.eu/wp-content/uploads/2019/03/Memoria-Pla-dAccio%CC%81-2018-v.2.1-a-31%C2%B712%C2%B718-FINAL.pdf
Citilab	2019	Pla d'Acció 2019	https://www.citilab.eu/wp-content/uploads/2019/03/Punt-4c.-Pla-dAccio%CC%81-2019-vFinal.pdf
Citilab	2021	Pla d'Acció 2020	https://www.citilab.eu/wp-content/uploads/2021/04/Memo%CC%80ria-Pla-dAccio%CC%81-2020.pdf
Citilab	2021	Pla d'Acció 2021	https://www.citilab.eu/wp-content/uploads/2021/04/Annex-1.-Pla-dAccio%CC%81-2021-vFinal-Signat.pdf
Citilab	2022	Pla d'Acció 2022	https://www.citilab.eu/wp-content/uploads/2022/05/Annex-II.-Pla-dAccio%CC%81-2022-vFinal_unlocked.pdf
Citilab	2023	Pla d'Acció 2023	https://www.citilab.eu/wp-content/uploads/2024/12/Memoria-Pla-dAccio-2023.pdf
Citilab	2023	Pla d'Acció 2024	https://www.citilab.eu/wp-content/uploads/2023/12/Pla-dAccio-2024-vFinal-Signat_Censurado.pdf
Citilab	2018	Guía de Laboratorios Ciudadanos. Guía para Responsables Públicos	https://coneixements.citilab.eu/wp-content/uploads/2018/09/Gu%C3%ADa-Laboratorios-Ciudadanos.pdf
Citilab	2018	Colaboratorio y Thinklab: laboratorios ciudadanos 2.0 ¿Son posibles los sistemas universales de innovación?	https://coneixements.citilab.eu/wp-content/uploads/2019/02/Colaboratorio-y-Thinklab-laboratorios-ciudadanos-2.0.pdf
Citilab	Undated	Seniorlab: an innovative, user-driven lifelong learning project based on the experiences of senior citizens	https://coneixements.citilab.eu/wp-content/uploads/2017/08/SeniorLab_innovative_lifelong_project.pdf
Coboi lab	Undated	El Laboratori	https://coboilab.cat/es/lab/
Coboi lab	Undated	Què és Coboi lab	https://coboilab.cat/ca/laboratori/
Coboi lab	2022	Mètode 4>17	https://www.coboilab.cat/wp-content/uploads/2022/06/METODO_4-17_ES.pdf
Coboi lab	2019	I tu vols ser resident a Coboi lab?	https://www.coboilab.cat/wp-content/uploads/2019/10/191001_Bases_RESID--NCIES-2019_web1.pdf
Coboi lab	2020	El manual d'eines	https://www.coboilab.cat/wp-content/uploads/2020/05/NOUmanual1.pdf
Coboi lab	2021	Mètode per a fer front a reptes de Ciutat	https://www.coboilab.cat/wp-content/uploads/2021/12/Metodo-Retos-de-ciudad_CAT.pdf
Coboi lab	2023	Recopilació Capsulab 2022	https://www.coboilab.cat/wp-content/uploads/2023/07/Capsulab-recopilacion-comments-2.pdf
Coboi lab	2021	Com prototipar des de l'Administració Pública	https://www.coboilab.cat/wp-content/uploads/2021/03/P5.1_Presentacio---de-resultats_Presentacio--.pdf
Medialab Matadero	Undated	Medialab	https://www.mataderomadrid.org/en/medialab
Medialab Prado	2021	¿Cómo funciona un laboratorio ciudadano?	https://www.medialab-matadero.es/sites/default/files/multimedia/documentos/2021-04/M%C3%B3dulo%201B.%20C%C3%B3mo%20funciona%20un%20laboratorio%20ciudadano.%20David%20G%C3%B3mez_0.pdf

Lab	Date	Document	Link
Medialab Prado	2018	La oportunidad de los laboratorios ciudadanos	https://www.medialab-matadero.es/sites/default/files/2018-08/dina%CC%81micas.pdf
Medialab Prado	2022	Laboratorios ciudadanos. Una aproximación a Medialab Prado	https://www.medialab-matadero.es/sites/default/files/multimedia/documentos/2022-08/Laboratorios_ciudadanos._Una_aproximacion_a_Medialab_Prado_ESP.pdf
Medialab Prado	Undated	Laboratorio sin muros: inteligencia colectiva y comunidades de afectados	https://www.medialab-matadero.es/sites/default/files/import/ftp_medialab/0/793/793.pdf
Medialab Prado	2021	El laboratorio ciudadano como metodología de aprendizaje	https://www.medialab-matadero.es/sites/default/files/multimedia/documentos/2021-07/El%20laboratorio%20ciudadano%20como%20metodolog%C3%ADa%20de%20aprendizaje.pdf
Medialab Prado	2016	Residencias Interactivos? 16	https://www.medialab-matadero.es/sites/default/files/import/ftp_medialab/17/17994/17994_2.pdf
Medialab Prado	2021	Manual de mediación	https://www.medialab-matadero.es/sites/default/files/multimedia/documentos/2021-07/MANUAL%20DE%20MEDIACI%C3%93N.pdf
Medialab Prado	2013	Medialab Prado. Programa de actividades 2013	https://www.medialab-matadero.es/sites/default/files/import/ftp_medialab/11/11690/11690_2.pdf
Medialab Prado	2018	Lab Meeting Iberoamericano: Encuentro Iberoamericano de innovación ciudadana y laboratorios ciudadanos	https://www.medialab-matadero.es/sites/default/files/2018-05/Labmeetingiberoamericano2018_basesProyectos_0.pdf
Medialab Prado	2013	food.lab. Laboratorio social de comida	https://www.medialab-matadero.es/sites/default/files/import/ftp_medialab/10/10489/10489_2.pdf
Medialab Tabakalera	Undated	Medialab - The Citizen Creation Space	https://www.tabakalera.eus/en/medialab/
Tabakalera	Undated	Conócenos (Tabakalera)	https://www.tabakalera.eus/en/about-us/
Medialab Tabakalera	2024	Programa de Mediación 2024-25	https://makusi.tabakalera.eus/es/artxiboak/programa-de-mediacion-20242025/deskargatu/?fichero=20240918_Hezkuntza-programa_es.pdf
Tabakalera	2025	Convocatoria de cesión de recursos y espacios	https://cms.tabakalera.eus/sites/default/files/2025-01/convocatoria_cesion_espacios_material_2025-.pdf
Ciuta-lab	2022	Ciuta-lab #MisiónClimática	https://www.lasnaves.com/wp-content/uploads/2022/04/Ciuta%2%B7lab_Convocatoria_pub-3.pdf
Ciuta-lab	2022	Ciuta-Lab – Missió Climàtica	https://grigriprojects.org/procesos/ciuta-lab-missio-climatica/
Ciuta-lab	Undated	Ciuta-lab #MisiónClimática	https://labsbibliotecarios.es/laboratorio/ciuta%2%B7lab/
Ciuta-lab	2022	Laboratorios ciudadanos orientados a Missions 2030	https://www.lasnaves.com/wp-content/uploads/2022/02/Informe-del-proceso-de-codisen%CC%83o-de-Ciuta%2%B7lab.pdf
Ciuta-lab	2023	I Convocatoria de las Comunidades de Aprendizaje y Práctica (CAP) en torno a la Missió Climàtica València 2030	https://www.lasnaves.com/wp-content/uploads/2023/03/CIUTALAB-Convocatoria-CAP.pdf
Ciuta-lab	2023	II Convocatoria de los Talleres de Producción Colaborativa (TPC) en torno a la Missió Climàtica València 2030	https://www.lasnaves.com/wp-content/uploads/2023/03/CIUTALAB-Convocatoria-TPC-II.pdf

Lab	Date	Document	Link
Ciuta-lab	2023	Taller de cocreació i prototipat de mobiliari en codi obert per al Ciuta-lab de Las Naves	https://www.lasnaves.com/wp-content/uploads/2023/02/Memoria_Taller-Mobiliari-OpenSource-Ciutalab.pdf
Ciuta-lab	2023	Informe de la II Convocatoria de los Talleres de Producción Colaborativa en torno a la Missió Climàtica València 2030	https://www.lasnaves.com/wp-content/uploads/2023/09/II-Convocatoria-TPC-CiutaLab-web.pdf
Ciuta-lab	2022	Convocatoria Personas Colaboradoras	https://www.lasnaves.com/wp-content/uploads/2022/05/Ciuta%C2%B7lab_Convocatoria-Personas-Colaboradoras.pdf

Table 2: List of documents reviewed. Source: own elaboration.

Annex II. Questionnaire for semi-structured interviews

Note: Script serves as interview guide, thus not all questions administered to all participants. All interviews were held in Spanish.

CARACTERIZACIÓN DEL INFORMANTE	<p>P1. Nombre</p> <p>P2. Entidad</p> <p>P3. Cargo y responsabilidades</p> <p>P4. Fecha de incorporación al laboratorio</p> <p>P5. Ámbito territorial</p>
CARACTERIZACIÓN BÁSICA DEL LABORATORIO	<p>P6. ¿Cuántas personas trabajan en el laboratorio?</p> <p>P7. ¿Cuál es la misión del laboratorio?</p> <p>P8. ¿En qué áreas trabaja?</p> <p>P9. ¿Cuáles son sus proyectos más significativos en la última década?</p> <p>P10. ¿Qué hitos citaría como los más significativos en la última década?</p>

¿QUÉ PAPEL ESTÁN JUGANDO LOS LABORATORIOS DE INNOVACIÓN CIUDADANA? ¿HA CAMBIADO COMO RESULTADO DEL COVID-19?	
<p>OBJETIVOS DE LOS LABORATORIOS</p> <p>Labs as conduits to citizens, reframing problems rather than problem solving (McGann, Wells, and Blomkamp 2021)</p> <p>Tipos labs: 1) Fix and control, 2) (Re-)Design and optimize, 3) Make and relate, 4) Educate and engage, 5) Empower and govern, and 6) Explore and shape (McCorry et al. 2022)</p> <p>Innovation capacity (Timeus and Gascó 2018)</p> <p>Dimensiones del impacto (Veeckman and Temmerman 2021)</p>	<p>P11. ¿Puedes describir brevemente el propósito, la misión u objetivos del laboratorio en el que trabajas?</p> <p>P12. ¿Se trata de una iniciativa de la Administración Pública? ¿Qué encaje institucional tiene?</p> <p>P13. ¿Cómo surge el laboratorio? ¿Cómo evoluciona?</p> <p>P14. ¿Qué procesos o formas de innovación urbana apoya el laboratorio?</p> <p>P15. ¿Con qué sectores de la ciudad trabaja?</p> <p>P16. ¿Cómo promueve el laboratorio la innovación ciudadana en su ámbito territorial? ¿Y más allá de su ámbito territorial?</p> <p>P17. ¿Qué impactos principales reseñaría que ha conseguido la iniciativa en la promoción de la innovación ciudadana?</p>
	P18. ¿Qué ha cambiado en la misión, las formas de trabajo o los impactos tras el COVID-19?

¿QUÉ DISCURSOS Y ESTRATEGIAS ARTICULAN LOS LABORATORIOS DE INNOVACIÓN CIUDADANA? ¿QUÉ HA CAMBIADO EL COVID-19 AL RESPECTO?	
	<p>P19. ¿A qué necesidades sociales responde el laboratorio?</p> <p>P20. ¿Qué rol pueden desempeñar los laboratorios de innovación en la transformación de las ciudades?</p> <p>P21. ¿A qué objetivos deberían aspirar?</p> <p>P22. ¿Qué políticas públicas relacionadas con estas transformaciones (urbanas, regionales o nacionales) aspira a impulsar el laboratorio?</p> <p>P23. ¿Qué políticas públicas relacionadas con estas transformaciones (urbanas, regionales o nacionales) ha contribuido a impulsar?</p>
	P24. ¿Qué ha cambiado en el rol, objetivos y políticas que impulsan los laboratorios de innovación ciudadana de España tras el COVID-19?

¿QUÉ HA APORTADO LA COLABORACIÓN EN RED ENTRE LABORATORIOS DE INNOVACIÓN CIUDADANA (CASO COLABORATORIO)? ¿QUÉ EFECTOS DE RED HAN SIDO MÁS SIGNIFICATIVOS?	
<p>EFFECTO-RED / DIFUSIÓN A TRAVÉS DE LA RED</p> <p>Dimensiones del efecto-red: bridging, bonding, confianza, difusión/influencia, dependencia de recursos, centralidad, embeddedness, densidad (Medina et al. 2022)</p>	<p>P25. ¿Qué beneficios ha reportado el Colaboratorio para abordar limitaciones pre-existentes en la acción del laboratorio?</p> <p>P26. ¿Qué recursos locales ha permitido movilizar el Colaboratorio, que no se hubieran movilizado de otra forma?</p> <p>P27. ¿Qué recursos no locales ha permitido movilizar el Colaboratorio?</p> <p>P28. La participación en el Colaboratorio: ¿le ha aportado, personalmente o a su entidad, ideas nuevas relativas a la innovación ciudadana? ¿Qué ideas?</p> <p>P29. ¿Le ha aportado, personalmente o a su entidad, conocimiento de nuevas prácticas relativas a la innovación ciudadana?</p> <p>P30. ¿Le ha aportado, personalmente o a su entidad, conocimiento de discursos novedosos en lo relativo a la innovación ciudadana?</p> <p>P31. ¿Le ha aportado, personalmente o a su entidad, ideas, prácticas o discursos novedosos en ámbitos diferentes a la innovación ciudadana?</p>
<p>FACTORES DE PROXIMIDAD</p> <p>Proximidad geográfica, cognitiva, organizativa, social e institucional (Boschma 2005)</p>	<p>P32. A su juicio, ¿qué elementos han ayudado a consolidar el Colaboratorio?</p> <p>P33. ¿Y qué elementos han actuado como barreras para su consolidación/crecimiento?</p> <p>P34. ¿Qué apoyo han recibido de su entorno institucional?</p> <p>P35. ¿Has sentido más proximidad con actores del Colaboratorio que con otros actores geográficamente más próximos? ¿En qué aspectos concretos?</p>

¿QUÉ IMPLICACIONES HA TENIDO EL TRABAJO DEL COLABORATORIO EN LAS POLÍTICAS PÚBLICAS? ¿QUÉ HA CAMBIADO EL COVID-19 AL RESPECTO?	
	<p>P36. ¿En qué políticas públicas ha querido influir el Colaboratorio?</p> <p>P37. ¿Qué influencia(s) ha tenido hasta la fecha?</p>

Annex III. Findings for Research Question 1: forms of citizen-led innovation

Forms of Citizen-led innovation	Description	Experiments	Quotes
Developing Citizen Competencies for Innovation	Helping citizens develop skills like programming or design, viewed as digital and creative competencies. This support is provided throughout their lives, ensuring inclusivity. A central objective is to equip citizens with the necessary skills to innovate.	Programming and robotics education programs for primary schools.	'to help develop innovation skills among citizens.' 'This includes 'learning to program, learning to design,' as well as acquiring 'digital and creative skills.'" 'The goal is to 'generate contexts for training' in these skills throughout life... 'leaving no one behind.'"
Creating & Fostering Communities of Practice and Learning	Citilab believes in this model of citizen organization where groups form around shared interests to learn, experiment, and develop projects. These communities are valuable for active participation and value generation. Great importance is given to these communities for ongoing activity and collaboration.	The Senior Lab: a community of active seniors who develop their own projects, learn, experiment, and collaborate with researchers or test applications.	The Senior Lab is 'very valuable' for keeping seniors active, developing projects and open to new learning and collaboration opportunities.
Promoting Citizens as Protagonists and Co-designers	Giving citizens a central, active role in innovation processes. Moving beyond citizens as mere information sources to them being builders of solutions and co-designers of policies, services, and cultural programs. Laboratories act as meeting points for this engagement. This includes promoting specific co-creation and co-design methodologies.	Citizens co-designing policies, public services, cultural programs, or 'serious games.' The joint project "Recerca Innova Educativa de Ciutat" used co-design methodologies.	'Giving citizens a leading role,' 'people have knowledge and can contribute.' 'People can build responses [...] be able to talk about the issues.' 'People can co-design policies, they can co-design public services, they can co-design cultural programs.'
Practical Experimentation and Project Creation	Facilitating the development of concrete, citizen-driven projects through communities and dedicated spaces. This involves hands-on experimentation and creation.	Experiments with biotechnology; collaborative design processes with materials that 'blow your mind'.	(Regarding materials in collaborative design) they can 'blow your mind'.
Constructing a Transferable Discourse and Methodology	The laboratory takes care in clearly communicating its activities and impact, which aids local recognition. This is an institutional practice to operate and legitimize innovative citizen activities. The Collaboratory area also focuses on developing 'co-creation and co-design communities and methodologies.'	Citilab's strategic communication of its work. Development and sharing of co-creation and co-design methodologies.	Citilab has taken 'great care to 'explain what we do'.' The Collaboratory aims to develop 'co-creation and co-design communities and methodologies.'
Extending the Culture of Participation and Citizen-led innovation	Aspiring to make citizen-led innovation a widespread and common practice integrated into various societal institutions, moving it from an extraordinary occurrence to a normal part of civic life.	The aspiration for a 'school of democratic participation and lifelong citizen-led innovation, with many opportunities in each of the institutions' (schools, libraries, museums, primary care centers, etc.).	They want this way of doing things 'to gradually become something that is more common, right? That is, that it is more or less extraordinary.' They aspire to a 'school of democratic participation and lifelong citizen-led innovation, with many opportunities in each of the institutions.'

Table 3: Forms of innovation in Citilab. Source: Own elaboration.

Forms of Citizen-led innovation	Description	Experiments	Quotes
Evolving the Focus of Innovation	Initially focused on social economy and social entrepreneurship, then expanded to broader social innovation including the third sector and citizen initiatives and currently centres on public innovation as a tool for collective work in public policies.	Coboi lab's shift from social entrepreneurship to social innovation, and now to public innovation.	'Initially, Coboi lab focused on social economy innovation, supporting social entrepreneurship.' ¹ Later, 'it evolved towards social innovation, broadening the scope to include the 'third sector or citizen initiatives X with a vocation for social impact''. 'Currently, its main focus is public innovation, understood as a tool for city councils that advocates for collective work to innovate in public policies.'
Innovating Public Policies Collaboratively / Facing City/Territory Challenges Collaboratively	Bringing different stakeholders together to work collectively on urban or territorial challenges. The lab aims to be a tool for the City Council, advocating for collective work in public policy innovation.	Using its own methodology, '4>17,' aimed at collaboratively addressing city and regional challenges.	Coboi lab's 'know-how lies in how to bring different stakeholders together to work collectively on urban or territorial challenges.' ¹ Its goal is to be a 'tool at the service of the City Council [...] that advocates for collective work when it comes to innovating in public policies.' Their expertise focuses on 'how to collaboratively address city or regional challenges.'
Optimizing Public Administration and its Resources / Optimizing and Transforming	Understanding innovation as a way to optimize resources, processes, update organizational culture, and propose new relational systems within the administration. This is not just about saving money but also about broader systemic improvements.	Pilot billing management protocol to improve efficiency of administrative processes and external communication.	'Innovation is understood as a way to optimize resources and processes, update organizational culture, and propose new relational systems within the administration.' ¹ 'This not only involves prototyping to save money, but also 'optimizing processes, updating an organizational culture, and proposing new relational systems.' Innovation is 'not conceived as anything other than to change, improve, advance, or transform.'
Experimenting, Anticipating Solutions & Maintaining a Leading Edge in Public Policy	Experimentation is fundamental to test and move toward solutions for complex challenges. It involves continuously trying new approaches to anticipate future needs and maintain a vanguard position in public policy innovation.	Continuous testing and experimentation to 'get ahead of possible solutions, to complex challenges.	'Experimentation is fundamental to a laboratory and allows for testing and experimentation to move toward possible solutions to complex challenges.'; 'A key objective is 'let's never stop testing and experimenting, to do just that, to try to get ahead of possible solutions to complex challenges.' The lab aims to be a 'cutting-edge space for public policy innovation,' attentive to emerging trends and needs.
Generating New Relational Spaces and Dynamics	Creating new, comfortable, and neutral relational spaces that facilitate encounters and collaborations among diverse stakeholders (citizens, academia, business, administration) that might not occur in traditional settings.	Establishing the lab itself as a 'comfortable and neutral space' for collaboration.	'One objective is to create new relational spaces with various stakeholders in the territory (citizens, academia, business, administration).' The lab seeks to be a 'comfortable and neutral space that facilitates encounters and collaborations that might not occur in a traditional setting.'
Bringing Method and Rigor to Creativity & Systematizing Knowledge	Demonstrating that creativity in public innovation requires method, rigor, and process. It also involves working to systematize the knowledge generated in the lab and apply it to process innovation.	Applying systematized knowledge to projects like the billing protocol.	'The aim is to demonstrate that creativity in public innovation requires method, rigor, and process.' The aim is to bring "order to creativity.'"; 'We are working to systematize the knowledge generated in the laboratory and apply it to process innovation, such as the billing protocol example.'

Table 4: Forms of innovation in Coboi lab. Source: Own elaboration.

Forms of Citizen-led innovation	Description	Experiments	Quotes
Driving Radical Urban Transformation & Legitimizing Citizen-led innovation Policy	A central objective is to generate a deeper, more disruptive, and radical transformation in the city, directing it in a different direction from usual trajectories. The aim is for citizen-led innovation to become a legitimate innovation policy within the city.	The overall strategic direction of initiatives like Medialab Prado aiming for significant urban change.	'A central objective has been to generate a deeper, more disruptive, and radical transformation in the city...' 'The goal is for citizen-led innovation to become a legitimate innovation policy within the city.'
Transforming Cultural Spaces into Collaborative Production Hubs	Cultural spaces like Medialab sought to evolve from being mere 'content providers' to becoming places of collaboration, experimentation, and the creation of interdisciplinary and experimental projects. This was inspired by 'free culture and free software' as 'open innovation.'	Medialab Prado's shift (starting 2006-2007) to function as a 'space for experimentation and collaborative production.'	Medialab was proposed to function as a 'space for experimentation and collaborative production.' It was sought to transform cultural spaces from mere 'content providers' to places of collaboration, experimentation, and the creation of interdisciplinary and experimental projects. Inspired by 'free culture and free software' as a form of 'open innovation.'
Developing Stable Infrastructure & Promoting Open Collaborative Creation	The goal has been to develop a stable infrastructure and equipment model that functions as a place connecting people with proposals and ideas with others willing to collaborate. The core of this model is the 'call for collaborators,' where projects are open and collaborative.	Medialab Prado's model centred around the 'call for collaborators.'	The goal is 'to connect people with proposals with others who want to collaborate to make them a reality.' 'The core of their model is the 'call for collaborators,' where 'projects are open and collaborative.' This is seen as the main objective, 'beyond organizing specific activities.' The developed methodology should 'be replicated and used by anyone in other contexts and countries.'
Applying Collaborative Models Broadly: Diverse Themes, Participants, and Contexts	Seeking to broaden work topics and diversify participant profiles, incorporating 'diversity and complexity of the social as a power.' The idea is to translate collaborative creation to different contexts, including citizen science and local issues, making participation effectively open to 'anyone.'	Applying the collaborative model to citizen science ('garage science and then neighborhood science') and focusing on local issues, not just international calls.	The goal was to 'translate this idea of collaborative creation to different contexts,' applying the model to topics such as citizen science ('garage science and then neighbourhood science'). Incorporating the 'diversity and complexity of the social as a power.' 'The idea is that the notion of 'anyone' being able to participate becomes effective.'
Decentralizing Citizen-led innovation to Local/District Levels	A specific objective, especially during the "ciudades del cambio" period, was creating laboratories in Madrid's districts. This was seen as experimenting with or prototyping new, stable district public policies or facilities, bringing the innovation model to neighbourhoods.	"Experimenta Distrito" project in Madrid, aimed to 'create laboratories in the districts' and bring the model to neighbourhoods.	'...a specific objective was the creation of laboratories in Madrid's districts, understood as the experimentation or prototyping of new, stable district public policy or facilities.' The goal was to 'create laboratories in the districts' of Madrid, bringing the model to the neighbourhoods.'
Fostering Public Innovation through Citizen-Public Official Collaboration	Seeking to create spaces for public innovation by promoting collaboration between citizens and public officials.	The 'Madrid Listens' (Madrid Escucha) initiative, which sought to create a space for 'public innovation' through citizen collaboration.	'We have sought to create spaces for public innovation by promoting collaboration between citizens and public officials.'

Table 5: Forms of innovation in Medialab Prado. Source: Own elaboration.

Forms of Citizen-led innovation	Description	Experiments	Quotes
Operating as an Open Citizen Laboratory & Providing Access to Tools/Knowledge	Functioning as an 'open citizen laboratory' that seeks to provide 'tools and make them available to people.' This includes facilitating collaboration between people with different skills and needs through 'match' dynamics to generate work groups.	Hirikilabs (2013) being an 'open citizen laboratory' that made tools available. Organizing 'speed dating' type dynamics to 'make 'matches' between people with complementary skills (design, electronics, etc.).'	The lab 'seeks to provide 'tools and make them available to people.' It is conceived as a 'space for citizen creation and experimentation.' The formula was 'it has tools and it makes them available to people.'
Facilitating Collaborative Project Creation and Citizen Group Organization	Enabling the creation of collaborative projects and activities in an open, experimental space. This involves the organization of different citizen groups and collectives with diverse intentions, from personal learning and enjoyment to more ambitious project goals.	3D printing and sewing/textile experimentation groups. Data analysis projects like 'The Airbnb Effect.' Citizen astronomy projects (balloon launches, tools for the blind, radio telescopes). Food Hack Club. Environmental research groups.	The lab facilitates 'the creation of collaborative projects and activities in an open and experimental space.' It supports 'the existence of different groups and collectives that organize with different intentions, from personal learning and enjoyment ('taking care of oneself, entertaining oneself, learning, doing') to achieving more ambitious goals ('organizing workshops, undertaking more ambitious projects').'
Developing Practical Solutions, Prototypes, and Experimental Innovations	Producing diverse, practical, and experimental innovations. This ranges from collaborative creation on specific topics to developing practical solutions and prototypes in areas like data, environment, and technology, focusing on 'somewhat innovative processes.'	Creation of tools for the blind (stellariums). Construction of radio telescopes. Experimenting with more sustainable ways of eating ('hacking gadgets').	The forms of citizen-led innovation produced are 'highly diverse, practical, and experimental, ranging from experimentation and collaborative creation on specific topics to organizing for social response to emergencies.' They focus on 'citizens organizing and generating 'somewhat innovative processes.'"
Expanding Audiences, Topics, and Transferring Practices to Diverse Communities	Actively working to avoid becoming a 'geeky niche' by reaching beyond traditional maker audiences to include children, young people, and families. This includes developing specific programs and transferring collective and citizen-led innovation practices to diverse communities.	Developing specific programs for children aged 0 to 6 in the Egia neighbourhood in response to local demand. Evolution towards family activities and STEM focus.	The aim is to 'avoid becoming a 'geeky niche' and to 'open up to other audiences such as children, young people and families.' To 'transfer collective practices and citizen-led innovation, including but not limited to maker culture, to diverse communities.'
Claiming the Value of Citizenship in Innovation & Constructing Legitimizing Discourse	Actively generating discourse around 'citizen-led innovation' to 'give value to citizen activity' and assert that citizens generate innovation and participate in innovation systems. This is a form of self-legitimization and making citizen-led innovation visible, especially when institutional recognition is lacking.	Creating a discourse to legitimize citizen activity, especially 'when they felt they weren't sufficiently considered as a structure.' Workshops and activities appearing in media (e.g., Airbnb project) helped legitimize the lab.	'To assert that citizens also generate and participate in innovation systems.' 'Creating a discourse around citizen-led innovation to 'give value to citizen activity.' The lab has 'actively sought to generate a form of discourse... around the 'collaborative' and 'citizen-led innovation,' with the goal of 'giving value to citizen activity' and 'claiming that citizens also generate innovation.'"
Serving as a Tool for the Cultural and Creative Ecosystem	Functioning as an internal resource within a larger cultural institution (Tabakalera) for artistic and other projects. It also serves as a place for reflection on creative and cultural industries (CCIs), championing smaller creators and exploring intersections between artists, institutions, and citizens.	Functioning as an 'internal tool at Tabakalera' for artistic projects. Project with the German government on art, science, technology, and society.	To function as an 'internal tool at Tabakalera' for the development of artistic projects and those of other institutions.' To be 'a place of reflection on the creative and cultural industries (CCI), emphasizing the role of smaller creators and not just large clusters.' 'Show how artists can coexist with institutions and how citizens can participate in this intersection.'

Table 6: Forms of innovation in Medialab Tabakalera. Source: Own elaboration.

Form of Citizen-led innovation	Description	Experiments	Quotes
Solving Specific Challenges & Generating Concrete, Innovative Solutions	Citizen labs aim to be spaces where concrete and innovative solutions to specific problems emerge, initially often small-scale, for major societal issues like environmental challenges, poverty, inequality, and governance problems. Ciuta-lab's initial mandate, for example, was to contribute to Valencia's 'climate mission.'	Workshops and learning communities focused on local energy communities, re-naturalization, gardens and urban agriculture, and the circular economy within Ciuta-lab.	Citizen labs aspire to be 'spaces where concrete and innovative solutions to specific problems emerge.' The idea was for the labs to be a 'space where concrete solutions to challenges and concrete problems emerge.' Ciuta-lab's initial mandate was to contribute to Valencia's 'climate mission.'
Fostering Collaboration, Community Building, and Networking among Diverse Actors	A central objective is to promote community building and networking by bringing together diverse people. Solutions are envisioned to emerge from collaboration, generating community ties. Emphasis is placed on including a variety of stakeholders (the 'four helices': public sector, business, academia, citizens) with diverse profiles.	Actively seeking diverse profiles for participation, such as migrants, doctoral students, civil servants, the productive sector, and people of different ages, to foster collaboration and establish lasting contacts.	A central objective was to 'encourage collaborative spaces, networking among stakeholders, and generate community.' The idea is that solutions emerge 'from collaboration between diverse people, generating community ties.' There was 'a lot of emphasis on the diversity of the participating agents.'
Prefiguring New Forms of Public Institutions	Citizen labs attempt to prefigure a new type of public institution that functions differently from traditional ones, which are often not designed for experimentation or diversity. The goal is for public institutions to adopt logics of experimentation, open innovation, and to help reconfigure them to reduce public distrust.	The laboratory model itself serves as an attempt to demonstrate and prefigure how public institutions could operate differently, fostering experimentation and citizen involvement.	Citizen labs are 'an attempt to prefigure a new type of public institutions that function differently.' The hope was that public institutions would adopt a logic of experimentation, of 'testing, trying.' The goal was to 'help reconfigure public situations' to reduce public distrust, showing that 'they can be different.'
Democratizing Innovation Processes & Changing Innovation Narratives	This involves changing the narrative of innovation, moving it beyond being exclusively technological or business-related, towards 'novel transformation processes.' Also democratizing the 'how' of innovation, removing processes from closed spheres (universities or R&D departments) and opening them up to diverse agents.	Efforts to open up innovation processes beyond traditional expert domains, involving a wider range of citizens and stakeholders in addressing challenges.	'Democratize innovation processes, removing them from closed spheres (universities, corporate R&D) and opening them up to diverse agents.' Changing the narrative of innovation... toward 'novel transformation processes, with or without the role of technology.'
Influencing Public Policies & Adding Social Innovation Logic to Agendas	There's an intention for proposals emerging from citizen labs (workshops, learning communities) to influence and find pathways into public policies. This includes involving public officials in the processes to ensure realism and to add a layer of social innovation and collaborative work logic to existing political agendas.	Ciuta-lab's attempts to influence policies for the renaturalization of school playgrounds and maintaining dialogue with Valencia Clima i Energia on energy communities.	Although there was no explicit intention to influence specific policies from the beginning, 'there was an attempt to involve public officials... and for the proposals to have a path as public policies.' The goal was to involve public officials... so that the public sector 'listens to what other stakeholders are saying.'
Transforming Citizen Participation & the Citizen-Institution Relationship	Aiming to transform traditional citizen participation mechanisms (often seen as obsolete or uncollaborative) into dynamic spaces for citizen-led innovation with more deliberative processes and collective intelligence. Also generating a perception that a different, more impactful interaction with the public sector is possible.	The furniture project in "La Harinera", where participants' ideas and prototypes were incorporated into the design. Promoting citizen participation via more dynamic and collaborative mechanisms.	To 'transform traditional citizen participation mechanisms... into spaces for citizen-led innovation with more deliberative processes and collective intelligence.' To 'generate in the participants the perception that a different kind of interaction with the public was possible, where their ideas and prototypes could have a real impact.' Promote 'citizen participation' through 'more dynamic and collaborative mechanisms than traditional ones.'

Table 7: Forms of innovation in Ciuta-lab. Source: Own elaboration.

