



Delft University of Technology

**Document Version**

Final published version

**Licence**

CC BY-NC

**Citation (APA)**

Tarachucky, L., Ayala, D. H. F., & Ersoy, A. (2026). From citizen innovation labs to social transformation: analysing the Conectando Cozinhas case through the lens of infrastructuring. In *Proceedings of DRS* Article 111 (Proceedings of DRS; Vol. 2026). Design Research Society. <https://doi.org/10.21606/drs.2026.756>

**Important note**

To cite this publication, please use the final published version (if applicable).  
Please check the document version above.

**Copyright**

In case the licence states "Dutch Copyright Act (Article 25fa)", this publication was made available Green Open Access via the TU Delft Institutional Repository pursuant to Dutch Copyright Act (Article 25fa, the Taverne amendment). This provision does not affect copyright ownership.  
Unless copyright is transferred by contract or statute, it remains with the copyright holder.

**Sharing and reuse**

Other than for strictly personal use, it is not permitted to download, forward or distribute the text or part of it, without the consent of the author(s) and/or copyright holder(s), unless the work is under an open content license such as Creative Commons.

**Takedown policy**

Please contact us and provide details if you believe this document breaches copyrights.  
We will remove access to the work immediately and investigate your claim.

*This work is downloaded from Delft University of Technology.*

Jun 8th, 9:00 AM - Jun 12th, 5:00 PM

## From citizen innovation labs to social transformation: analysing the Conectando Cozinhas case through the lens of infrastructuring

Laryssa Tarachucky  
*Federal Institute of Santa Catarina, Brazil*

Diego Hernando Florez Ayala  
*Universidade do Vale do Itajaí, Brazil*

Aksel Ersoy  
*Delft University of Technology, The Netherlands*

Follow this and additional works at: <https://dl.designresearchsociety.org/drs-conference-papers>



Part of the [Art and Design Commons](#)

---

### Citation

Tarachucky, L., Ayala, D.H., and Ersoy, A. (2026) From citizen innovation labs to social transformation: analysing the Conectando Cozinhas case through the lens of infrastructuring, in Simeone, L., Gray, C. M., Verhoeven, A., de Götzen, A., Bakırlıoğlu, Y., Zohar, H., Stead, M., and Buwert, P. (eds.), *DRS2026: Edinburgh*, 8–12 June, Edinburgh, United Kingdom. <https://doi.org/10.21606/drs.2026.756>

This Research Paper is brought to you for free and open access by the DRS Conference Proceedings at DRS Digital Library. It has been accepted for inclusion in DRS Biennial Conference Series by an authorized administrator of DRS Digital Library. For more information, please contact [library@thedrs.org](mailto:library@thedrs.org).

# From citizen innovation labs to social transformation: analysing the Conectando Cozinhas case through the lens of infrastructuring

Laryssa Tarachucky<sup>a\*</sup>, Diego Hernando Florez Ayala<sup>b</sup>, Aksel Ersoy<sup>c</sup>

<sup>a</sup>Federal Institute of Santa Catarina (IFSC), Brazil

<sup>b</sup>University of Vale do Itajaí (UNIVALI), Brazil

<sup>c</sup>Delft University of Technology (TU Delft), The Netherlands

\*Corresponding author e-mail: laryssa@ifsc.edu.br

doi.org/10.21606/drs.2026.756

**Abstract:** Citizen Innovation Labs (LabICs) have emerged as experimental infrastructures for collective design and civic transformation. Operating in close partnership with public institutions, these laboratories create collaborative spaces where urban publics co-design responses to issues of shared concern. Yet, little is known about how these laboratories operate as long-term supports for community-driven initiatives beyond their initial phases of experimentation or incubation. This paper investigates how LabICs mobilise processes of infrastructuring to support broader cycles of social transformation by analysing the case of Conectando Cozinhas, a citizen-led initiative developed within LabIC Novale (Brazil). Using a retrospective qualitative case study, the research reconstructs the initiative's trajectory across five stages: public formation, issue articulation and prototyping, public scoping and validation, incubation, and post-incubation. Findings suggest that LabIC Novale acted as an enabling infrastructure that fostered public formation, collective ownership, and translation of grassroots initiatives into institutional contexts. Yet sustaining participation beyond the incubation phase remained a challenge.

**Keywords:** citizen innovation labs; participatory design; infrastructuring; civic innovation

## 1. Introduction

Citizen Innovation Labs—often referred to as LabICs in Ibero-American contexts (Pascale & Resina, 2020; Resina, 2019)—have emerged as experimental infrastructures for collective design and civic transformation (De La Roz & Blanco-Rangel, 2020; García, 2018). They operate at the intersection of civil society and public institutions, combining participatory methods and collaborative prototyping (Celis & Garcia, 2019) to create spaces where citizens, communities, and governments collectively design responses to locally defined challenges (Gómez & Freire, 2023). By embracing diversity as a constitutive value, LabICs enable heterogeneous actors—professionals, amateurs, public officials, and community



This work is licensed under a [Creative Commons Attribution-NonCommercial 4.0 International Licence](https://creativecommons.org/licenses/by-nc/4.0/).

groups—to collaborate on equal footing, transforming difference into productive forms of collective creativity (Lafuente, 2022; García, 2018).

Operating in close partnership with public institutions, LabICs occupy a liminal position that enables them to test novel configurations of collaboration between citizens, academia, and the state (Pascale & Resina, 2020). They mediate between formal systems of governance and the often informal dynamics of civic engagement, translating local knowledge into designable forms of public action (Celis & Garcia, 2019). Through this mediating role, LabICs have expanded the repertoire of public sector innovation—introducing participatory prototyping, open calls, and iterative experimentation as modes of governance (Pascale & Resina, 2020; Gobierno de la Provincia de Santa Fe, 2018). While a growing literature on public sector innovation labs has examined similar experimental arrangements within government institutions (eg. McGann et al., 2021; Tönurist et al., 2017), LabICs typically emerge from hybrid configurations involving civil society, academia, and public institutions. However, their hybrid nature also generates tensions between experimentation and institutionalization, openness and accountability, and autonomy and dependency.

Building on these tensions, this study draws on the concept of infrastructuring (Björgvinsson, Ehn, & Hillgren, 2012; Le Dantec & DiSalvo, 2013) to examine how LabICs sustain the capacities, relationships, and practices that emerge from participatory experiments. The focus is on how they cultivate infrastructures that allow civic initiatives to persist, evolve, and reconfigure. In this sense, the research investigates how a locally embedded LabIC has employed participatory design to support the endurance of citizen-led projects. Specifically, it explores three main research questions: (1) how participatory design practices within LabIC Novale contributed to the infrastructuring of civic collaboration; (2) how these infrastructures enabled citizen initiatives to sustain and adapt beyond their initial experimental phase; and (3) what this process reveals about the capacity of LabICs to nurture enduring forms of collective action.

This paper addresses these questions by examining a citizen-led initiative—Conectando Cozinhas—incubated within LabIC Novale, a Citizen Innovation Lab in southern Brazil. The initiative sought to strengthen local food networks and foster collective care through shared cooking, mutual support, and collaborative entrepreneurship. By tracing its trajectory, the paper explores how a LabIC can mobilise processes of infrastructuring to connect experimentation with the work of sustaining social relations, collaborative practices, and civic capacities. In doing so, it makes three major contributions to research on participatory design and civic innovation. First, it conceptualises citizen innovation labs as civic design infrastructures that support the emergence and development of collective initiatives beyond the initial phase of experimentation. Second, through a retrospective analysis of the Conectando Cozinhas initiative, it identifies five stages through which such infrastructuring processes unfold: public formation, issue articulation and prototyping, public scoping and validation, incubation, and post-incubation challenges. Third, the study highlights the limits faced by citizen-driven initiatives operating largely through voluntary labour, particularly in Global South contexts where institutional support and public policies for civic innovation remain limited.

The paper is structured as follows. The next section reviews literature on LabICs and their role in mediating between civic action, design practice and public governance. Section 3 outlines the methodological approach, detailing the retrospective case study strategy and

the use of infrastructuring as an interpretive lens. Section 4 presents the case of Conectando Cozinhas, tracing its trajectory across five stages: public formation, issue articulation and prototyping, public scoping, incubation, and post-incubation challenges. Section 5 develops the analytical discussion, examining how methodological, relational and institutional dimensions shaped the initiative. The final section reflects on the implications of these findings for the sustainability of civic innovation and for integrating citizen-led practices into public-sector and policy contexts.

## **2. Theoretical background**

### *2.1 Citizen innovation and the role of labs*

Citizen innovation refers to collective, situated, and interdisciplinary practices through which citizens engage in the creation of social arrangements, services, artifacts and policies oriented toward the common good (Tarachucky, 2021). These practices mobilise skills, knowledges, and experiences of individuals who act together to respond to local vulnerabilities and shared concerns (Brarda, 2020; Navarro, 2015; Gómez & Freire, 2023). Rather than a top-down process driven by institutional or market logics, citizen innovation is characterised by self-organisation, horizontality, and collaboration around local agendas. It repositions innovation as a civic capacity—an ability to collectively identify, deliberate, and design responses to public challenges (De la Hoz & Blanco-Rangel, 2020; García, 2018). In this sense, participation becomes a means through which citizens shape the social and material conditions of public life.

The term “Citizen Innovation Lab” crystallises three intertwined dimensions. The laboratory evokes an environment designed for experimentation, where participants test possible improvements to social realities (Bulkeley, 2018; Montes et al., 2024). The term innovation is understood in its broadest sense, as change based on knowledge—scientific or otherwise—that generates social value beyond economic return. Finally, the citizen dimension refers to the individual as a member of a community who both contributes to and benefits from collective processes, exercising rights and responsibilities within shared frameworks of governance (Costa & Ianni, 2018). Citizen innovation therefore expands the democratic function of design and experimentation by reframing the role of citizens—from recipients of policies to active agents in shaping their communities (García, 2018; Lafuente, 2022).

In practice, LabICs serve as environments where people from diverse backgrounds—often previously unconnected—come together to co-develop projects aimed at the common good. They are designed as civic infrastructures that provide the conditions for experimentation, learning, and collaboration (Gómez & Freire, 2023; García, 2018). Through open calls, interdisciplinary teams, and participatory prototyping, these laboratories connect civil society, academia, and public institutions to co-design responses to local challenges while exploring wider social, environmental, and technological transformations (Pascale & Resina, 2020; De la Hoz & Blanco-Rangel, 2020).

Across the Ibero-American region, LabICs have developed in diverse forms and contexts, drawing methodological inspiration from the pioneering work of Medialab Prado in Madrid. Its open, iterative model—based on public calls, peer-to-peer learning, and collaborative

prototyping—became a reference for both itinerant laboratories, such as those organised by the Secretaría General Iberoamericana (SEGIB) in cities like Mexico City, Panama, and La Paz, and for permanent infrastructures embedded in local territories (Pascale, 2021; Resina, 2019). Examples include Exploratorio in Medellín, a public lab dedicated to collective creation and learning by doing; and Brazilian initiatives such as Silo – Arte e Latitude Rural and the Instituto Procomum, which operate as civic innovation hubs integrating social technology, cultural mediation, and local engagement with coastal and rural communities (Mendonça, 2018; Savazoni, 2018).

These laboratories operate as civic design infrastructures—assemblages that mediate between experimentation and governance, local initiative and institutional frameworks. They mobilise tools, spaces, and social practices to enable collective design processes that extend beyond single projects, cultivating what Björgvinsson, Ehn, and Hillgren (2012) describe as “design things”: temporary yet generative gatherings where publics form around shared matters of concern. Their relevance lies in the ongoing socio-material processes that sustain the conditions for collaboration, participation, and collective learning. This means that their success cannot be evaluated solely through its immediate outputs—prototypes, workshops, or policy proposals—but through its capacity to weave long-term networks of collaboration.

While the organisational and institutional dynamics of these laboratories have been widely discussed, less attention has been given to the processes that allow their outcomes to endure over time. Understanding how LabICs sustain participation, relationships, and civic capacities beyond the experimental phase requires a process-oriented perspective. The following section introduces the concept of infrastructuring, developed within Participatory Design, as a framework for examining these long-term dynamics.

## *2.2 Infrastructuring citizen innovation*

While LabICs have proliferated as spaces for experimentation, collaboration, and participatory governance, much less is known about how such spaces sustain civic processes and relationships over time (Tarachucky, 2021). To address this, this study draws on the concept of infrastructuring, developed within the field of Participatory Design (PD), to examine the long-term and relational dimensions of civic innovation. Originating in Scandinavian design traditions, PD emphasised the involvement of users and stakeholders in design processes. However, scholars such as Björgvinsson, Ehn, and Hillgren (2012), Le Dantec and DiSalvo (2013), and Bødker, Dindler, and Iversen (2017) have expanded this perspective, shifting attention from isolated design projects to the continuous, collective efforts that make participation possible.

Infrastructuring refers to the ongoing creation, adaptation, and maintenance of the social and material conditions that enable collaboration. Building on the foundational insight that infrastructures are relational and emerge in practice (Star & Ruhleder, 1996), the concept reframes design as a long-term, open-ended process rather than a bounded intervention culminating in a finished artefact. The idea of infrastructuring through design draws on the distinction between design-for-use, focused on the development of useful systems, and design-for-future-use, aimed at creating conditions for sustaining a community of participants (Le Dantec & DiSalvo, 2013). It foregrounds how design unfolds through iterative acts of alignment, articulation, and care that link people, tools, and institutions across multiple temporalities (Bødker et al., 2017). Infrastructuring thus highlights the generative

and maintenance work through which participation is continually enacted and renewed—what Karasti (2014) describes as the “extended temporal horizon” of design. Within this view, the focus shifts from producing artefacts to cultivating relationships, capacities, and shared understandings that enable collective action: it is through infrastructuring that publics come into being and sustain themselves over time (Le Dantec & DiSalvo, 2013). In this sense, infrastructuring makes visible the subtle, often invisible labor of coordination, negotiation, and maintenance that underpins the continuity of civic innovation (Hillgren et al., 2011).

Within the context of civic innovation, infrastructuring provides a conceptual lens to understand LabICs socio-technical systems through which civic relations and capacities are configured over time. This perspective invites inquiry into the temporal and organisational dynamics that allow these spaces to persist beyond episodic projects or funding cycles, enabling ongoing negotiation between citizens, institutions, and material arrangements (Hillgren et al., 2011). This includes material arrangements and technological supports, but also affective and relational practices as well as the cultivation of intermediaries and mediating artefacts that translate between civic, academic, and governmental; the establishment of routines that balance experimentation with continuity; and the adaptation of infrastructural supports—spaces, platforms, partnerships—to evolving collective goals (Le Dantec & DiSalvo, 2013).

While the notion of infrastructuring originates in PD, its focus on ongoing collaboration, relational maintenance, and situated alignment resonates strongly with recent debates on civic design and public innovation. In this paper, the term civic design infrastructures is used to extend the PD tradition into the civic domain, describing how LabICs cultivate and sustain the material, social, and organisational conditions that enable collective action and social transformation. Seen through this perspective, LabICs are sites of infrastructuring—where relationships, practices, and capacities are reconfigured to support enduring forms of civic innovation.

### **3. Methodology**

This study adopts a retrospective qualitative case study approach (Mills et al., 2010) to examine how a LabIC operates as an infrastructural configuration that supports different stages of a civic initiative. This approach was chosen because Conectando Cozinhas unfolded over a three-year period (2021–2023) within the LabIC environment, generating interactions, documents, and decisions that can only be understood when examined in hindsight and in relation to one another. This temporal orientation allows the analysis to move beyond the immediate outputs of the project and attend to the evolving configurations of actors, practices, and institutional conditions that shaped its trajectory.

The case was selected for three reasons. First, Conectando Cozinhas was one of the longest-running initiatives within the LabIC, allowing observation across multiple stages of development. Second, the project addressed a socially relevant and structurally complex issue: the informal labour conditions of food workers in a mid-sized Brazilian city. Third, because the project interacted with different programmes of the LabIC, it provides a window into the laboratory’s scaffolding role.

The analysis draws on a range of materials produced throughout the project's life cycle: documentation submitted to the LabIC's public call (2021); workshop materials and collective notes from the initial immersion process; intermediate outputs produced during the subsequent phases (models, drafts, programmes, internal memos); communication records, presentations, and public summaries generated for events; informal and semi-structured interviews with the proponent, members of the LabIC team, and collaborators involved at different moments; and internal reflections and post-event analyses produced by the LabIC as part of its monitoring routines. The study approaches these materials as situated artefacts that record negotiations, expectations, and relational dynamics characteristic of civic innovation environments.

The methodological approach adopted in this study conceives infrastructuring as the analytical lens through which the case is examined. This means that the analysis shifts attention to the ongoing relational, organisational, and material arrangements that enable civic initiatives to emerge, evolve, and endure over time. The analysis followed an interpretive, abductive process. First, all materials were chronologically organised to reconstruct the project's trajectory. Second, the emergent narrative was examined through the conceptual lens developed in Section 3, focusing on methodological, relational, and institutional scaffolds. Third, these elements were mapped onto the five stages identified through the data: (1) urban public formation, (2) issue articulation and early prototyping, (3) public scoping and validation, (4) incubation and organisational structuring, and (5) post-incubation challenges, impacts and decline.

The analytical categories presented in this paper were developed through a retrospective analysis of the initiative's trajectory. Project documentation, workshop records, incubation reports, and public communications produced between 2021 and 2023 were revisited to identify key moments in the evolution of the initiative and the forms of infrastructuring work that supported it. Through this process, recurring mechanisms related to methodological support, relational expansion, and institutional scaffolding were identified and subsequently organised into the stages presented in the analysis.

One of the authors was directly involved in the LabIC's coordination team throughout the project's duration. While this position ensured deep knowledge of the processes under study, it also required methodological reflexivity to avoid over-identification or idealisation. Efforts were made to triangulate personal impressions with documentary evidence and interview accounts, and to treat divergences as analytically productive rather than contradictory.

## **4. Case description: Conectando Cozinhas**

Conectando Cozinhas began in 2021, when its proponent, an autonomous food worker and researcher of Brazilian culinary traditions, submitted the project to an open call launched by a LabIC in southern Latin America. The proposal emerged from the proponent's direct experience with the barriers faced by informal food workers, who often lack the financial, legal, and infrastructural conditions required for formalisation. Drawing on national data indicating the rapid growth of informal labour in the food sector—coupled with local



accounts of precarious working conditions—the project sought to address a systemic issue affecting both economic livelihoods and public health.

The initial submission framed the problem as twofold: (1) the absence of accessible pathways for formalisation; and (2) the lack of collective support mechanisms for small-scale food producers operating in vulnerable conditions. To respond to this, Conectando Cozinhas proposed a dual strategy: mapping local informal food workers and creating an “incubator for food-based micro-enterprises,” offering shared kitchen space, administrative support, and training within a collaborative environment.

The project entered the LabIC through a dual-call system: an open call for citizen proposals, followed by a collaborator call inviting people to join selected initiatives. This mechanism activated a diverse public around the issue, including food workers, designers, students and health professionals. The LabIC supported the proponent in refining the project narrative, identifying missing competencies and initiating institutional contacts. As the issue circulated across networks, it shifted from an individual struggle to a shared urban concern, forming the initial public that would carry the project forward.

During a three-day immersive workshop, the group engaged in activities using project-development canvases, guided facilitation and spaced mentoring. These tools enabled the articulation of the problem’s dimensions and the development of a first conceptual prototype centred on shared kitchen infrastructure and collective support mechanisms. A cycle of two unconferences—one online, one in person—expanded the inquiry beyond the initial group. Using guided collective note-taking and tools such as Stinky Fish, participants shared experiences related to informal food work, urban food systems and regulatory constraints. Within these events, the group validated the local diagnosis within a broader field of concerns, attracted new actors (including researchers, small producers and vendors), and highlighted both convergences and tensions within food-related publics. The initiative subsequently joined the LabIC’s Citizen Incubation Programme (PIC), which combined monthly mentoring with five public training activities on communication, funding and participatory design. The focus was to refine the operational model, test an MVP and develop an action plan supported by documentation and monitoring tools.

Although the initiative advanced significantly, sustaining the workload proved challenging due to the project’s reliance on volunteer labour and the proponent’s work demands in the food sector. Over the course of its implementation, however, the project succeeded in reaching nearly one hundred food-sector workers, many of whom expressed feeling isolated in their practices and found, through the initiative, new forms of connection, visibility and mutual support.

## **5. Analysis and discussion**

The analytical lens of infrastructuring provides a way to interpret how LabICs support, mediate, and shape community-led initiatives over time. It moves the focus from discrete activities or outputs to the ongoing work—methodological, relational, institutional, and organisational—that enables civic projects to emerge, stabilise, transform, and sustain beyond the initial experimental phase. Following Hansen et al. (2019), the analysis identifies mechanisms operating at different stages of the initiative’s trajectory and examines their

effects, acknowledging that such effects may unfold across different temporal scales and that not all mechanisms remain active throughout the process. Table 1 summarises these stages and highlights the infrastructuring mechanisms and conditions observed in each moment of the Conectando Cozinhas initiative. The sections that follow examine these stages in detail, focusing on the mechanisms operating at each moment and their effects on the development of the initiative.

*Table 1 Stages of civic design infrastructuring observed in the Conectando Cozinhas case*

| <b>Stage</b>                          | <b>Empirical moment</b>                                                                                                                                                | <b>Infrastructuring mechanisms / conditions</b>                                                                                                | <b>Observed effects</b>                                                                                                  |
|---------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------------------------------|------------------------------------------------------------------------------------------------------------------------------------------------|--------------------------------------------------------------------------------------------------------------------------|
| 1. Formation of urban publics         | Dual-call system activating collaborators around the initial proposal                                                                                                  | Relational and narrative mechanisms enabling identification, resonance and responsibility among participants                                   | Transformation of an individual concern into a publicly articulated issue and emergence of an urban public               |
| 2. Issue articulation and prototyping | Three-day collaborative workshop structured through project canvases, facilitation, and mentoring                                                                      | Methodological mechanisms structuring collective reflection and shared problem articulation                                                    | Emergence of a shared understanding of the problem and convergence around a preliminary collective action plan           |
| 3. Public scoping and validation      | Cycle of online and in-person unconferences involving broader food-system actors                                                                                       | Relational mechanisms expanding the network of participants and perspectives                                                                   | Validation and reframing of the problem within wider food-system debates                                                 |
| 4. Incubation                         | Six-month incubation process, including dedicated mentoring, planning activities, project documentation, and initial engagement with potential partners and supporters | Institutional and organisational mechanisms supporting capacity building, coordination, resource mobilisation and early implementation efforts | Refinement of the operational model and development of an implementation strategy                                        |
| 5. Post-incubation                    | Attempts to sustain the initiative after the incubation programme                                                                                                      | Withdrawal of formal lab support                                                                                                               | Weak institutional anchoring and partial continuation of networks and knowledge alongside reduced operational continuity |

### *5.1 Stage 1 – Mobilising a public: early mechanisms of infrastructuring*

The first stage of Conectando Cozinhas unfolded through a dual-call system characteristic of Ibero-American citizen innovation labs. This mechanism acted as an early methodological scaffold, structuring the conditions for public formation around the issue of informal food labour. The first call was deliberately broad, inviting citizens who carried socially relevant but dormant ideas—problems perceived in solitude, lacking the collective conditions to be acted upon. The second call functioned as a call to action, directed at those who recognised the issue as meaningful and wished to contribute their skills, knowledge, or lived experience.

During this period, LabIC Novale provided methodological support to the proponent, helping refine the project narrative and map the competencies required for the work ahead. Activities included joint sense-making sessions, collaborative identification of missing expertise, and iterative adjustments to the communicative framing of the proposal. These were situated design practices—forms of “thinking together” that could gradually shift the problem from a personal struggle to a collective concern. The proponent’s storytelling played a central role: by narrating her experience of navigating regulatory barriers and precarious working conditions, she enabled others to recognise themselves or their communities in the problem. Parallel to this, the LabIC activated its communication networks, mobilising media partners, disseminating explanatory texts, and stimulating word-of-mouth circulation. This mediated visibility offered an early public articulation of the issue, giving it public presence.

Relationally, the second call brought together a heterogeneous group that included formal and informal food workers, designers, students, health professionals, administrators, and residents. Participants joined for varied reasons—theme affinity, interest in the proponent, or curiosity about collaborative innovation—and formed a collective with diverse commitments and capacities. An open, mutually engaged atmosphere was supported by mentors from public, private, and academic sectors who helped stabilise early interactions and recognise diverse expertise.

Institutionally, the project began circulating through local governance networks. LabIC Novale connected the proponent to the municipal Secretariat of Economic Development, university actors, and to the mayor’s office, which provided a map of unused municipal kitchens. While these links did not yet produced formal commitments, they signalled institutional recognition. Structural constraints were already evident, including the absence of municipal policies for shared kitchens, lack of funding programmes, and limited governmental attention to informal food economies.

Taken together, these methodological, relational, and institutional mechanisms constituted the project’s initial infrastructuring: they transformed an individual concern into a shared urban issue through coordinated visibility, collective articulation of situated knowledge, and provisional commitments. In the short term, this stage assembled a public capable of advancing the issue; in the longer term, it established enabling and constraining conditions that shaped subsequent stages of prototyping, scoping, and incubation.

## *5.2 Stage 2 - Issue articulation and prototyping*

The second stage unfolded during a three-day immersive workshop designed to support problem articulation and early prototyping. Methodologically, it functioned as a structured setting for collective inquiry, combining project presentations, group work, mentoring sessions, and a final public presentation. Methodological scaffolds provided by LabIC—such as a project-development canvas, a written guide, and an online repository of templates—served as orienting devices that helped translate participants’ situated knowledge into actionable components. The presence of experienced designers further supported the use of these tools, enabling the problem to be framed in terms of actors, needs, constraints, and opportunities.

This scaffolding supported a collective process of issue articulation, in which the initial concern was refined through analysis of infrastructural, economic, and regulatory conditions. The resulting prototype took the form of a conceptual model for supporting informal food producers through shared kitchen spaces, training pathways, and administrative assistance. However, the process also revealed practical limits: the density of mentoring interactions during the final day created time pressure and made convergence difficult, illustrating the constraints of highly compressed collaborative formats.

Relationally, the workshop consolidated the public formed during Stage 1. While leadership remained with the proponent, tasks were distributed among collaborators who organised themselves cooperatively and temporarily suspended political differences in favour of the collective work. The group remained cohesive and even expanded, incorporating new participants into the subsequent stage of public scoping.

Institutionally, the workshop brought the project into closer contact with local governance and development actors. Representatives from municipal government, the university, and private companies participated in different activities, signalling early interest. The mayor's chief of staff offered access to a map of underused municipal kitchens, while a major local company expressed willingness to support a future incubation programme. At the same time, structural constraints became clearer, including the absence of municipal policies for shared kitchens, limited support mechanisms for micro-entrepreneurship, and restrictive regulatory environments.

The immediate outcome of this stage was a more robust and publicly articulated project; in the longer term, it established a baseline definition of the problem and prototype that enabled the scoping and validation activities of the next phase.

### *5.3 Stage 3 - Public scoping and validation*

The third stage consisted of two public events designed as a scoping mechanism to expand and test the problem articulated in earlier stages. Methodologically, they operated as open infrastructures for distributed inquiry. The first event, held online with open participation for Portuguese-speaking audiences, used guided note-taking and prompting questions to elicit situated knowledge from multiple territories. The second, held in person, mobilised local networks around urban food systems and employed the Stinky Fish tool to surface concerns, unrealised potential, and tacit knowledge. Facilitators moderated both events using preparatory guides that oriented discussion while allowing emergent themes.

These scaffolds enabled a process of public validation in which the local issue of informal food work was compared with experiences from other territories. Participants confirmed the relevance of the problems identified during prototyping and introduced additional perspectives, highlighting gaps, emerging practices, and alternative models. This expansion shifted the project from a locally anchored diagnosis toward a broader understanding of systemic food precarity and urban interdependencies.

Relationally, this stage expanded project's actor ecology. Residents, activists, cooks, health professionals, researchers, artists, and small-scale producers participated, bringing new alignments and lines of inquiry. The proponent's role as a thematic reference strengthened within this broader network. While cooperation predominated, tensions emerged between participants with different dietary perspectives, revealing normative frictions within debates

on food, labour, and sustainability. These tensions did not escalate but indicated divergent imaginaries that would shape the initiative's future directions.

Institutionally, the stage illuminated both possibilities and limits that reframed the problem space and informed the subsequent incubation phase. Although no public officials participated directly, the events circulated the issue across social networks through partner organisations and attracted interest from universities, which later initiated related research. At the same time, the absence of municipal engagement underscored a persistent barrier: growing social attention did not translate into institutional response.

#### *5.4 Stage 4 - Incubation*

The incubation stage was structured to provide a set of methodological, relational, and institutional scaffolds to support early-stage civic initiatives. Methodologically, the stage combined monthly mentoring sessions with five public training activities delivered by the LabIC team. Its tailored methodology focused on developing an action plan, iteratively refining the previously designed operational model. Training activities addressed communication strategies, funding opportunities, and participatory design principles, functioning as capability-building devices. Reports, communication materials, and monitoring sheets produced throughout the process formed a documentary infrastructure for tracking progress and maintaining coherence. However, limited resources and the proponent's restricted availability constrained the depth and frequency of activities, despite the stipend provided for participation.

Relationally, the incubation stage marked a shift in the composition and stability of the collaborative group assembled in earlier stages. While the proponent remained the central driving force, collaborators from previous stages participated only intermittently. The group oscillated between horizontal collaboration and a more proponent-centred dynamic, reflecting uneven distribution of time, labour, and responsibility. As the workload increased, the relational fabric of the project began to show signs of strain. The project's heavy reliance on volunteer labour meant that, over the eight months of incubation, the workload gradually surpassed what participants could reasonably sustain, resulting in fatigue and the slow erosion of collaborative engagement. Although the LabIC implemented adjustments to mitigate overload, these measures proved insufficient given participants' limited availability and the precarious rhythms of food-sector work.

Institutionally, the incubation process further exposed both the project's potential and its constraints. Engagement centred mainly on informal and small formal food workers, while connections with municipal institutions weakened. Although the LabIC provided space and close accompaniment, broader institutional alignment remained limited. Efforts to identify partners revealed the difficulty of translating expressions of interest into formal support, particularly in the absence of public funding mechanisms capable of absorbing the initiative.

Taken together, the incubation stage reveals the dual nature of infrastructuring within LabICs. Methodological and relational scaffolds enabled substantial progress—conceptual refinement, skill-building, and development of an initial operational model. At the same time, structural constraints—especially resource scarcity and uneven labour distribution—limited the project's transition toward more durable organisational forms. This tension

between early-stage support and long-term sustainability shapes the post-incubation trajectory analysed in the following section.

### *5.5 Stage 5 - Post-incubation challenges, impact and project decline*

After the incubation programme concluded, Conectando Cozinhas entered a period of reduced activity marked primarily by the limits of sustaining a community-led initiative without dedicated resources. Methodologically, only light routines persisted, such as sporadic check-ins and occasional individual efforts by the proponent to advance elements of the action plan. While the LabIC's practices became difficult to maintain, the project's public documentation continued to circulate, leaving a methodological legacy that remained accessible to the community and researchers.

The core group transitioned into a network of loose but enduring connections. Collaborators shifted to episodic engagement as the proponent faced increasing time pressure from food-sector work and the need to prioritise income-generating activities. Although collective intensity declined, relationships built throughout the process continued to generate occasional opportunities in related projects and networks.

This stage highlighted the broader constraints affecting civic innovation in resource-scarce contexts. Contacts established during earlier stages did not translate into formal commitments, and the absence of municipal policies or funding mechanisms for shared kitchen infrastructures limited the possibilities for organisational anchoring. However, the project generated notable symbolic and epistemic effects: it attracted academic interest, informed doctoral research, resulted in published articles, and even received international recognition.

## **6. Conclusions**

This paper analysed the Conectando Cozinhas initiative through a retrospective lens to examine how LabICs operate as civic design infrastructures supporting the development of community-led initiatives over time. By tracing the initiative across five stages—public formation, issue articulation and prototyping, public scoping, incubation, and post-incubation—the analysis showed that beyond enabling discrete participatory activities, LabICs configure evolving methodological, relational, and institutional scaffolds that help civic initiatives emerge, stabilise, and circulate.

Across the early stages, the LabIC functioned as an effective enabling infrastructure. It mobilised heterogeneous publics, structured collaborative inquiry, and created the conditions for issue articulation and collective prototyping. Through a cycle of public events, it broadened the interpretive field of the problem, validating it within a wider ecology of urban food systems. The incubation programme further strengthened organisational capacities and helped consolidate a minimum viable model for implementation. These findings reinforce the role of LabICs as metadesign infrastructures that democratise innovation by supporting situated processes of inquiry, materialisation, and collective organisation.

The later stages of the project highlight a different dimension of infrastructuring: the limits that arise when civic initiatives depend primarily on voluntary labour and lack

complementary public policies or institutional anchoring. The partial suspension of activities reflects structural constraints typical of resource-scarce contexts, particularly in the Global South, where community-driven innovations often advance in early phases but struggle to consolidate without sustained institutional support. At the same time, the project generated notable symbolic and epistemic effects—academic publications, international recognition, and durable networks—demonstrating that civic innovation produces forms of impact that exceed implementation alone.

The analysis of Conectando Cozinhas suggests that the transformative potential of LabICs lies in how they assemble and sustain infrastructural conditions for civic action over time. They function as civic design infrastructures - frameworks that enable participation to occur, circulate, and gain meaning within broader social systems. The processes and methodologies applied by LabICs have demonstrated their capacity to cultivate environments in which knowledge is collectively produced and translated into public value, often through open calls, peer-to-peer learning, and temporary collaborations that connect diverse actors. In this sense, LabICs redesign the very conditions under which public problems are recognized, debated, and collectively addressed. It also indicates that for such labs to support long-term transformations, their practices must be coupled with broader systemic commitments—policy frameworks, funding mechanisms, and institutional pathways—that allow community-led initiatives to evolve beyond early experimentation.

Future research could advance this discussion by conducting comparative analyses across multiple LabICs, examining how different models of institutional embedding shape the durability of community-led initiatives, and exploring how infrastructuring processes unfold in territories with varying degrees of resource availability, policy maturity, and state responsiveness. Comparative and longitudinal approaches would help to identify patterns of sustainability, forms of infrastructural erosion, and mechanisms that enable civic initiatives to transition from early experimentation to long-term consolidation. Such approaches could further refine analytical frameworks for assessing the sustainability of civic initiatives and for understanding infrastructuring as a multi-scalar process involving communities, intermediaries, and public institutions.

**Acknowledgements:** The authors express their sincere gratitude to Priscila Dal Bosco, the proponent of the Conectando Cozinhas initiative, for her vision, commitment, and openness throughout the process that made this research possible. We also thank the collaborators and mentors who contributed their time, knowledge, and support throughout the different stages of the initiative. This work received support from Federal Institute of Santa Catarina. The authors acknowledge the use of the generative AI tool ChatGPT (OpenAI) exclusively for linguistic refinement (spelling, grammar and clarity of expression). All ideas, interpretations, arguments and conclusions presented in this paper are entirely the author's own. AI was not used to generate content, conduct analysis, structure the paper, or produce any results.

## 7. References

- Björgvinsson, E., Ehn, P., & Hillgren, P. A. (2012). Agonistic participatory design: working with marginalised social movements. *CoDesign*, 8(2–3), 127–144.  
<https://doi.org/10.1080/15710882.2012.672577>.

- Bødker, S., Dindler, C., & Iversen, O. S. (2017). Tying knots: Participatory infrastructuring at work. *Computer Supported Cooperative Work (CSCW)*, 26(1–2), 245–273. <https://doi.org/10.1007/s10606-017-9271-0>.
- Bulkeley, H., Marvin, S., Palgan, Y. V., McCormick, K., Breitfuss-Loidl, M., Mai, L., von Wirth, T., & Frantzeskaki, N. (2018). Urban living laboratories: Conducting the experimental city? *European Urban and Regional Studies*, 26(4), 317–335.
- Celis, J. I. E. R., & García, E. C. (2019). Madrid escucha y Experimenta Distrito: Dos experiencias de colaboración y experimentación social. *Revista de Gestión Pública*, 8(2), 179–210.
- Costa, M. I. S., & Ianni, A. M. Z. (2018). O conceito de cidadania. In M. I. S. Costa (Ed.), *Individualização, cidadania e inclusão na sociedade contemporânea: uma análise teórica* (pp. 43–73). São Bernardo do Campo: UFABC Press.
- De la Hoz, L. P., & Blanco-Rangel, I. (2020). Laboratorios de innovación ciudadana, nuevas formas de cooperar: pinceladas en Cartagena de Indias. In N. F. Araujo (Ed.), *Reduciendo desigualdades: otros derechos y otros desarrollos* (pp. 147–176). Universidad San Buenaventura Cartagena.
- García, M. (2018). Los laboratorios ciudadanos en los sistemas de experimentación e innovación. En Equipo LAAAB (Coord.), *Abrir instituciones desde dentro* (pp. 105–112). <http://www.laaab.es/hackinginside/assets/chapters/CAPITULO10.pdf>
- Gobierno de la Provincia de Santa Fe. (2018). El método Santalab: Cómo potenciar la innovación pública a partir de la creatividad ciudadana. Santa Fe: Santalab. <http://www.santafe.gob.ar/index.php/web/content/download/249207/1309915/file/Libro%20Santalab.pdf>
- Gómez, D. & Freire, J. (2023). La emergencia de los laboratorios ciudadanos: Un modelo para la creación de comunidades de innovación. *European Public & Social Innovation Review*, 8(2). <https://doi.org/10.31637/epsir.23-2.6>
- Hansen, N. B., Dindler, C., Halskov, K., Iversen, O. S., Bossen, C., Basballe, D. A., & Schouten, B. (2019). How participatory design works: Mechanisms and effects. In *Proceedings of the 31st Australian Conference on Human-Computer Interaction (OzCHI '19)* (pp. 30–41). New York, NY: Association for Computing Machinery. <https://doi.org/10.1145/3369457.3369470>
- Hillgren, P.-A., Seravalli, A., & Emilson, A. (2011). Prototyping and infrastructuring in design for social innovation. *CoDesign*, 7(3–4), 169–183. <https://doi.org/10.1080/15710882.2011.630474>
- Karasti, H. (2014). Infrastructuring in participatory design. In *Proceedings of the 13th Participatory Design Conference: Research Papers (PDC '14)* (Vol. 1, pp. 141–150). Association for Computing Machinery. <https://doi.org/10.1145/2661435.2661450>
- Lafuente, A. (2022). *Itinerarios comunes: Laboratorios ciudadanos y cultura experimental*. Madrid: Ned Ediciones.
- Le Dantec, C. A. & DiSalvo, C. (2013). Infrastructuring and the formation of publics in participatory design. *Social Studies of Science*, 43(2), 241–264. <https://doi.org/10.1177/0306312712471581>
- McGann, M., Wells, T., & Blomkamp, E. (2021). Innovation labs and co-production in public problem solving. *Public Management Review*, 23(2), 297–316. <https://doi.org/10.1080/14719037.2019.1699946>
- Mendonça, C. (2018). Laboratorios rurales. Innovación ciudadana desde la periferia. En Equipo LAAAB (Coord.), *Abrir instituciones desde dentro* (pp. 65–74). Gobierno de Aragón.
- Mills, A., Durepos, G., & Wiebe, E. (Eds.). (2010). *Encyclopedia of case study research*. SAGE Publications. <https://doi.org/10.4135/9781412957397.n303>



- Montes, J., Batz, A., & Serrano Cárdenas, L. F. (2024). A taxonomy of innovation spaces from the innovation networks lens. *Journal of Innovation and Entrepreneurship*, 13(27).  
<https://doi.org/10.1186/s13731-024-00383-7>
- Pascale, Pablo. (2021). Laboratorios: un modelo para innovar en la cooperación para el desarrollo. In: Hualde, Alfredo; Matus, Maximino (Coordinadores). *Los laboratorios vivos y la innovación social: experiencias y perspectivas*. Tijuana: El Colegio de la Frontera Norte, 2021. p. 33-47.
- Pascale, P., & Resina, J. (2020). Prototipando las instituciones del futuro: El caso de los laboratorios de innovación ciudadana (Labic). *Iberoamerican Journal of Development Studies*, 9(1), 6–27.  
[https://doi.org/10.26754/ojs\\_ried/ijds.437](https://doi.org/10.26754/ojs_ried/ijds.437)
- Resina, J. (2019). ¿Qué es y para qué sirve un laboratorio de innovación ciudadana? El caso del LABICxLaPaz. *Revista del CLAD Reforma y Democracia*, 74, 31–62.
- Savazoni, R. (2018). El procomún desde la periferia, hacia el sur. En Equipo LAAAB (Coord.), *Abrir instituciones desde dentro* (pp. 35–44). Gobierno de Aragón.
- Star, S. L., & Ruhleder, K. (1996). Steps toward an ecology of infrastructure: Design and access for large information spaces. *Information Systems Research*, 7(1), 111–134.  
<https://doi.org/10.1287/isre.7.1.111>
- Tarachucky, L. (2021). Framework conceitual para apoiar a formulação de estratégias de design de interação urbana envolvendo o uso de recursos de mídia locativa digital [Doctoral dissertation, Federal University of Santa Catarina]. UFSC Institutional Repository.  
<https://repositorio.ufsc.br/handle/123456789/226801>
- Tarachucky, L., & Baldessar, M. J. (2018). A cidade híbrida e o cidadão conectado. In M. J. Baldessar & D. Monje (Eds.), *Diálogos latino-americanos: comunicação e democracia em tempos de convergência* (pp. 397–413). São Paulo: Intercom.
- Tönurist, P., Kattel, R., & Lember, V. (2017). Innovation labs in the public sector: What they are and what they do? *Public Management Review*, 19(10), 1455-1479.  
<https://doi.org/10.1080/14719037.2017.1287939>

About the Authors:

**Laryssa Tarachucky** is an urban researcher with a PhD in Knowledge Engineering and Management (UFSC) and postdoctoral training at the University of São Paulo (USP). Her work focuses on participatory design, civic innovation laboratories, and community-led urban transformation.

**Diego Hernando Florez Ayala** is an urban transitions researcher at the Universidade do Vale do Itajaí (Brazil) and holds a PhD in Management. His research interests include urban living labs, innovative systems, and sustainability transitions.

**Aksel Ersoy** is a senior researcher and academic working at Delft University of Technology. He specializes on urban digital transformation, socio-economic and socio-technical transitions, and the role of digital and AI-enabled innovation in creating inclusive, prosperous, and sustainable cities.