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Towards a dialogue between the urban project process and the Urban Living Lab approach: Application to the Innovation Campus project of the Communauté de Communes du Bassin de Pompey in France

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Abstract — This article explores the persistent challenges associated with public urban project ownership, including tensions arising from insufficient user integration and multi-stakeholder coordination. As territorial challenges intensify, traditional mechanisms struggle to effectively transform practices. Urban laboratories, such as the Urban Living Lab (ULL), offer innovative processes tailored to meet the unique needs of each urban context. This study presents the outcomes of a case study investigating the ULL's contributions to public project ownership. The findings demonstrate that the ULL approach facilitates early-stage stakeholder engagement, thereby reducing uncertainties and enhancing adaptability. This results in greater agility and resilience of projects, particularly amid evolving territorial public actions and disruptions. The ULL methodology, which encourages continuous collaboration, effectively addresses traditional constraints in the urban project process. It also fosters new stakeholder relationships within the ecosystem, leading to a cohesive community interconnected by the project even before its realization. These results underscore the potential of the ULL approach to significantly improve urban project practices by promoting ongoing stakeholder dialogue throughout all project stages.

Keywords— *Urban project process, Urban Living Lab, stakeholder engagement, Innovation Processes, design process*

I. INTRODUCTION

The mounting crises and escalating challenges in territories necessitate a shift in project management and development modalities. Existing mechanisms and tools, rooted in outdated paradigms, struggle to evolve. In urban development projects, regulatory changes and adjustments in practices have not fully resolved existing tensions. The integration of a diverse range of stakeholders such as users, residents, and citizens, along with the orchestration of varied expertise around the project's technical and political aspects, further complicates public project management [1][2].

Among the solutions, we find various forms of "urban laboratories", including the Urban Living Lab (ULL) approach, which establishes itself as an environment that promotes the implementation of innovation processes tailored to the specific needs of each urban context where it's deployed. The concept of Urban Living Lab is based on the main principles or paradigms of the Living Lab approach, an innovation method mobilizing the paradigms of open innovation and innovation through use[3][4].

There is a clear call for transformation in urban development project practices to effectively address urban complexities and pressing issues. The task lies in fostering a dynamic discourse among citizens, political actors, businesses, economic stakeholders, planning experts, and civil society at large. The aim is to collectively deliberate on the challenges, seize opportunities, conceive new infrastructural frameworks, and devise transformative practices [2][5].

The present situation necessitates a reconsideration of how project ownership and management processes are integrated. Frequently, early exploration stages are overlooked due to time and cost constraints. The public actors are striving to evolve project engineering, seeking to optimize process organization, increase adaptability, and decrease uncertainties[6].

In this article, we begin with a review of the state of the art to explore the emergence and limitations of project processes that certain efforts, such as consultations, have failed to address. Then we look at how the Urban Living Lab approach can help improve the management of urban development projects by enabling ongoing dialogue with stakeholders at every stage of the process. We present a case study conducted in the Communauté de Communes du Bassin de Pompey in France, to illustrate this approach and analyze the first results obtained. We also hypothesize how the Urban Living Lab can be used to improve the management of urban development

projects in other contexts. Finally, we discuss the implications of these findings for practice and its limitations.

II. STATE OF THE ART

A. *The emergence of the notion of the urban project in France*

The concept of the urban project, as it is understood today, emerged from a broad transformation of urban action that began in the 1970s. It embodies the transition from a fixed and centralized vision to an open and more lively approach to making cities [7].

The classical vision that puts the central state and its representatives as the main actor in the making of cities was justified in a context of reconstruction after the Second World War[8]. The significant economic disruption, coupled with a growing awareness of resource scarcity, created a shift leading to the decentralization of urban action. The state was forced to adopt "*an ever greater delegation of responsibilities for spatial planning to local authorities. All projects now are local, carried by a municipality, an agglomeration, a country or a region*"[9].

The classical model designed for a stable world[10], had a linear vision of reality, mobilizing standardized solutions with a structuring of actions in a hierarchical way and a mobilization of stakeholders through control[11]. This positivist approach to urbanism, based on a paradigm of technicist planning, reached its peak during the 1960s and 1970s only to be disrupted by a socio-economic context characterized by uncertainty [10][12]. These traditional processes often resulted in homogenous urban development that failed to consider the unique socio-economic and environmental contexts of each region.

From the 1990s onwards, the urban project was considered a new way of governing, bringing to life public actions, policies, and their associated challenges [13]. Politically, it has been interpreted as a new instrument of coordination and mobilization within the framework of a plural, interactive and negotiated approach to power. [14] The non-fixed nature of urban projects allowed exchange through negotiation and debate, and were considered catalysts for the local development of territories [15]. Nevertheless, this growing interest has sparked various interpretations among practitioners and elected officials, who have applied the concept to any city intervention, ranging from simple roadside development to comprehensive urban master plans [16][17].

Around the end of the 1990s, the collaborative nature of the urban project and its processes allowed it to be seen as a way of stimulating interactions and building bridges between actors to achieve common points, and no longer as an end in itself [18]. This shift from a fixed vision of urban projects to a more interactive vision has caused both an opening of the fields of possibilities and, paradoxically, this has also introduced new challenges. The increased reliance on multi-stakeholder collaboration sometimes resulted in lengthy negotiations, which could delay or even halt project implementations [19].

B. *The limits of current practice in urban projects*

As mentioned above, the urban project broke with the classical model to transcend its limitations. The transition

initiated more than thirty years ago from a so-called "sequential" approach to a process of co-production of the project between the various actors has not stopped evolving until today. Despite the various attempts by practitioners, elected officials and researchers to solve the limits of urban projects, the problems continue to multiply:

- Uncertainty and risk of failure: Improper integration of the project within its ecosystem can lead to the risk of poor programming, resulting in user dissatisfaction, design errors, financial difficulties, and extended implementation timelines [20].
- Limits of tools in the project process: to understand and manage a multitude of possible urban intervention modalities [21]
- The complexity of managing interactions between the multitudes of stakeholders: A study, conducted on approximately thirty major urban projects across Europe, underscored the need to reassess both the objectives and outcomes of urban projects in a nonlinear timeline. This shift, adapted to experimentation and regeneration, embraces a bottom-up approach, providing the relevant actors with the means and tools for co-production. [22]
- The issue of governance and exploitation of projects: the phasing and lack of link between stakeholders can also be an obstacle to the search for new ways of operating and implementing urban projects to ensure their sustainability over time (animation, maintenance, operation, etc.).

While the listed challenges aim to provide a comprehensive overview of issues faced in urban projects, it is crucial to acknowledge that the complexities of urban projects can present additional, context-specific hurdles not detailed here.

C. *The limits of the implemented official solutions: "consultation" as an example of co-production in urban projects:*

In France, the concept of co-production has risen to prominence alongside the evolution of urban projects [14]. One of the most widespread forms of co-production is the consultation that appeared in France at the end of the 1960s and was recovered in the early 1990s to interact with urban projects or even condition their existence[23]. It was an attempt to provide the necessary instruments for actors to ensure the openness of urban projects.

Today, consultation has become a mandatory step in major urban projects and urban planning documents, allowing residents and impacted stakeholders to voice their concerns and ideas. [24] :

- An instrumentalized consultation, often very badly perceived by the inhabitants they consider as an attempt to manipulate and validate decisions already taken, amplifying the risk of social unacceptability of the project
- A tool that facilitates dialogue between those impacted by the project and elected officials/practitioners, focusing on both the foundational intents of the project and the solutions to be implemented.

In the best case, even if public engagement is successful through consultation, it typically represents a specific “step” within the project process rather than influencing the entire project continuum

D. The practice of the Urban Living Lab as a practice to infuse innovation in urban planning

1.1. Emergence of the Urban Living Lab

The Living Lab Concept was introduced in the 1990s, starting with an article by Bajgier et al. This article described an experiment by students in Philadelphia, which they called "Living Laboratory"[25]. This concept was then taken up and developed by William J. Mitchell of the MIT Media Lab of the School of Architecture in 1995 to describe a research approach to develop and test new technologies or innovative strategies to confront social challenges of a certain complexity[26], [27].

In terms of results, the attractiveness of the ULL approach lies in its ability to lead to results that benefit from greater acceptance by stakeholders as well as offer opportunities to infuse the sustainable development of cities[3]. In this context of ecological transition, innovation in urban governance contributes to the acceleration of transitions towards more sustainable and resilient cities[28].

Driving sustainable urban change requires collaboration between sectors and organizations, mobilizing users and citizens[29]–[31]. The ULL is an approach, equipped with tools and techniques, to forge this cross-sectional link. It offers an interesting approach to redefining and working on complex economic, social and administrative issues that characterize urban environments, through an innovation approach involving several actors. [32]

The exponential interest in the approach as well as its adaptability to different disciplines, explain the multitude of definitions of the concept in the literature. For (Friedrich et al., 2013) ULL is a forum dedicated to innovation, integrating residents and other stakeholders to develop and test new ideas, systems and solutions in a pragmatic and complex context[33]. According to Almirall and Wareham, ULL can be defined as a type of open innovation network that acts as an intermediary between citizens, public organizations and private actors to capture and codify users' knowledge in their environment[34], [35]. All these definitions describe ULL as an intermediate approach between different stakeholders, with a focal point on users and citizens. This approach is particularly applicable to local authorities that advocate for project engineering to manage transformation dynamics. This is achieved through innovative practices that use a common language among actors, fostering an atmosphere of experimentation and co-creation [36], [37]

1.2. Stakeholder ecosystem integration bias in ULL approaches

The participation of different stakeholders is considered a central and critical aspect of the ULL approach to achieving the Sustainable Urban Development Goals[3], [30], [38]. Integrating a diverse range of multidisciplinary stakeholders into the development process introduces a new pool of knowledge, potentially resulting in more comprehensive solutions to identified problems [39]. The data collected through the process generally comes from the experience of the actors, their needs and preferences. It solidifies their sense

of ownership of decisions as well as their commitment to the objectives set by the ULL[3], [33], [40]

We notice through the analysis of the literature, a certain evolution of the notion of stakeholders of ULL. The ecosystem of actors is no longer limited to citizens and users, but covers the entire ecosystem of actors, which can be citizens, companies, businesses, public actors, NGOs, interest groups... etc. [3], [35]. This shift towards a more holistic stakeholder inclusion not only broadens the pool of ideas and solutions but also fosters more comprehensive and sustainable urban development. However, it also introduces a new layer of complexity in managing and coordinating these diverse actors. This undoubtedly requires the active involvement of stakeholders from the earliest stages [3], [41][42]. There is therefore a need for allocating sufficient time to build human relationships between stakeholders, exchange knowledge and homogenize objectives [32].

1.3. Exploring the Relationship between Co-creation, Co-design, and the Urban Living Lab

While the Urban Living Lab (ULL) approach robustly embraces collaborative and participatory dimensions, investigations into their interconnections remain somewhat sparse[26]. This is predominantly due to the plethora of terminologies associated with this dimension (co-creation, co-production, co-design, participation, mobilization, empowerment, quadruple helix model, multi-stakeholder or public-private-citizen partnerships, and so on) [43]–[47]. Amidst these terms, co-creation and co-design tend to create confusion as they are frequently interchanged in literature. Hence, illuminating the interrelation and distinctions between these terms becomes a necessity, as their comprehension can have significant ramifications on the design and outcomes of ULL projects.

Co-creation: This concept serves as an overarching approach that engages a diverse range of stakeholders throughout all project stages, from problem definition to project culmination [48], [49]. More than mere consultation, it's a collaborative process for problem-solving that involves stakeholders in an active and meaningful manner. This encompasses stages like problem identification, initiative design, and implementation, potentially incorporating elements of co-design and co-production [49], [50].

Co-design: As a subset of co-creation, co-design specifically targets the design phase of a solution, following the identification of the problem[51]. It's a process that empowers the individuals directly impacted by the design under consideration, utilizing a variety of tools, such as workshops, meetings, and cultural probes, among others[52]. Moreover, it represents an attitude and mindset that a designer must adopt.

In this context, an Urban Living Lab is a distinct framework or methodology for executing co-creation within an urban setting. Co-design tools and methods are thus employed to facilitate this co-creation process.

1.3.1. The role of municipalities in the ULL process

Despite the recognition of collaboration's importance in the governance of experimentation and the significance of urban regions within sustainable transition literature, the role of public decision-making institutions is often undervalued a y

[28]. The role of this key player in the management of transitions at the territorial level is often not the focal point of scientific investigations and analyses around the ecosystem of ULL actors.

In general, ULL approaches are seen by municipalities as a mechanism to orchestrate collaboration among multiple stakeholders, such as business, research communities, the public sector and civil society, within an enabling environment for co-creation[37], [53].

In a study conducted by Bulkeley and Castan Broto (2013), a database of 627 climate change experiments across 100 cities was compiled. Their conclusion was clear: municipalities were, by far, the pillars of experimentation and innovation in most sectors. [54] Their active participation has been demonstrated as crucial, subsequently influencing the quality of performance[28], [55]. This success can potentially be explained by the particular institutional and geopolitical scale of the municipalities, their political role and their proximity to the territorial ecosystem of actors. Decision-making capacity also attributes a certain legitimacy to these institutional structures (ibidem) facilitating transition management and the execution of actions to address shared challenges.

Nevertheless, the bureaucratic complexity of local authorities presents a substantial barrier to the adoption of the ULL[37]. The growing need to seek funding at all scales for the implementation of strategic actions, partnerships or public policies [28], [56] is also a major constraint that sometimes implies a change in posture and ambition.

III. MODELLING OF THE PROJECT PROCESS AND ITS APPLICATION TO THE CASE OF THE "INNOVATION CAMPUS" PROJECT OF THE COMMUNAUTÉ DE COMMUNES DU BASSIN DE POMPEY IN FRANCE

A. Research question

The Urban Living Lab (ULL) approach offers a dynamic tool that has the potential to enrich the urban project process by pragmatically engaging stakeholders. However, urban projects are inherently complex, which necessitates flexibility and adaptability in their management. This complexity demands a nuanced understanding of how ULLs can be effectively woven into different stages of the project process. Therefore, the focus of our research is to delve into the interaction between ULL approaches and the urban project process. We aim to uncover how ULLs can boost the integration of the project within its ecosystem, accelerate project dynamics prior to operational realization, and nurture an adaptable form of public/private governance. The core of our inquiry hence becomes: "In what ways can the Urban Living Lab approach augment urban development projects by enriching stakeholder engagement, amplifying project dynamics, and adapting governance mechanisms?"

B. Research hypothesis

We posit that an independent, parallel process, conducted in dialogue with the main project process, allows the principles of ULL, co-creation, and co-design to enhance the project. This requires the project management team to ensure data flow within the project, while respecting its regulatory dimension. The goal isn't to replace the current practice, but

to continually enrich it through an approach that integrates the project into its ecosystem. From the state-of-the-art, we derive the following assumptions for our hypothesis:

- Incorporate the project into its various political, territorial, legislative, economic, environmental, and social ecosystems. This is achieved by engaging stakeholders throughout the project phases, thus addressing the issue of data discontinuity (question formulation, programming, design, and implementation).
- Utilize "Intermediate Design Objects" (in our case, posters) as a snapshot of the project's progress, ensuring the desired continuity of interactions between stakeholders at each stage of the project process. These IDOs will serve as stakeholder engagement tools (workshops, interviews, exchanges, etc.), and will be continuously improved to reflect the progression of the project.
- Employ co-creation and co-design methodologies and tools throughout the process.
- Lastly, ensure the final solution is consistent with the initial diagnosis. This involves transitioning from diagnosis to solutions through various reasoning modes, encapsulated in a "solution specification".

We begin by constructing an urban project process model and exploring its interaction with an Urban Living Lab in the context of the Innovation Campus project. Here, the project manager balances managing the operational process according to regulatory norms and guiding the innovation process. This necessitates active stakeholder engagement, which promotes synergy between the two intertwined processes.

C. Modelling the process of urban projects

1) Modeling of the stages of the urban project process

The urban project process in France has continually evolved since its inception to address complex issues and transitions. Its inherent technicality, phased progression, and linearity often create a discrepancy between the programmatic dimension of the process and the realities on the ground [36]. These constraints pose challenges to the integration of innovation approaches or assimilation of the project within a transforming territorial ecosystem.

Academic literature provides limited comprehensive, pragmatic analysis of the urban project process as it is implemented in practice, blending regulatory norms, professional standards, and traditional practices. This scarcity could be attributed to the context-dependent nature of the process, in which methodologies are subject to variation due to numerous factors including political dynamics and temporal constraints.

Some publications and practitioner insights suggests a range of approaches to modelling the urban project process [21], [57]–[59]. However, to streamline the dialogue and maintain flexibility for necessary adaptations — acknowledging the process's variability across different contexts — we have delineated this process into four fundamental phases. These phases represent a simplified, yet encompassing overview

that accommodates the dynamic nature of urban project processes:

1. **Project Initiation:** This stage involves the generation of the project idea internally and an assessment of its relevance and alignment with the organization's capacity to initiate it.

2. **Programming:** This phase includes key activities like diagnosis, stakeholder consultation, and pre-operational studies (like soil analysis, regulatory assessments, and economic feasibility studies), culminating in an "operational program"—a tangible representation of the project vision, endorsed by project leaders.

3. **Design:** In this stage, the design and studies team, which includes the architect, is brought on board. Their role is to translate the project vision into a tangible design and oversee its realization, extending their supervision to the construction process until the project's completion

4. **Implementation and Enhancement:** The concluding phase involves the actual execution of the project, followed by iterative improvements and adjustments as necessary, guided by ongoing evaluation and feedback mechanisms.

2) *Modeling of an Urban Living Lab project process, in its interaction with the urban project process*

The Urban Living Lab (ULL) Project Process aims to create a collaborative environment that complements and enriches the conventional Urban Project Process. By integrating co-creation, stakeholder engagement, and context-based decision-making, the ULL process can mitigate the limitations of the traditional process while preserving its essential structure. The following stages outline how the ULL Project Process interacts with the Urban Project Process:

1. **Question formulation:** Here, the ULL process engages with the initial political intention and preliminary data of the Urban Project Process. It aids in identifying critical issues and sets the stage for a more inclusive and cooperative approach in subsequent stages.
2. **Political specifications:** The ULL process augments the Programming stage of the Urban Project Process by facilitating an environment for elected officials to share their territorial vision and political project. This approach promotes better decision-making and a stronger alignment between the project and its local context, without burdening officials with intricate technical details.
3. **Contextualization:** Building on the Programming stage, the ULL process fosters a comprehensive understanding of the project context by combining inputs from elected officials and stakeholders from various fields. This collaborative approach aids in refining the project vision and ensures the integration of diverse perspectives.
4. **Articulation:** In this stage, the ULL process focuses on fostering connections and synergies among stakeholders and aligning project functions and

characteristics with stakeholder needs and interests. This creates a 'community of use,' leading to a more collaborative, responsive, and adaptive design process.

5. **Solution specifications:** In this stage, the ULL process enhances the Implementation phase of the Urban Project Process. It equips architects and designers with a comprehensive understanding of the project context and the underlying data, enabling more context-sensitive design and execution.

D. *Application Case Study: The "Bassin de Pompey" Territory in France and the Emergence of the Innovation Campus Project*

The industrial history of the Bassin de Pompey is characterized by long-standing resilience, foresight, and anticipation of transitions. The territory currently hosts over 3000 structures, including 250 companies at the Eiffel Energie industrial park, encompassing a wide array of activities. The municipality (Community de Communes in France), in its role as a facilitator of transitions and connector of actors, has initiated the "Innovation Campus" project. This project aims to establish a third space dedicated to fostering connections among local actors and nurturing their collaborative dynamics. The idea emerged from recognizing the absence of a communal space where this diverse network could converge and collaborate. However, this ambitious goal soon encountered challenges that questioned the processes and methods of traditional project management. Consequently, the municipality engaged the ERPI laboratory (Innovative Processes Research Team) to spearhead an innovation process that mobilizes stakeholders.

1) *Challenges of the case study and the necessity for an innovative approach to urban planning*

While there was a recognized need and preliminary diagnosis, the complexity of initiating the Innovation Campus posed several key challenges to the traditional urban project process for the municipality:

- **Stakeholder engagement:** The project should strive to build a user community and foster synergies among stakeholders, requiring a customized programming approach that supports its evolving needs while preserving a common vision.
- **Sustainable Economic Model:** Like many third spaces globally, the project faces the challenge of establishing a self-sustaining economic model, which was a significant concern for the project owner.
- **Holistic Programming:** The project should aim to offer services that not only meet "needs" but also tackle shared challenges and align with the stakeholders' collective ambition, integrating the territory's economic, cultural, and scientific aspects.

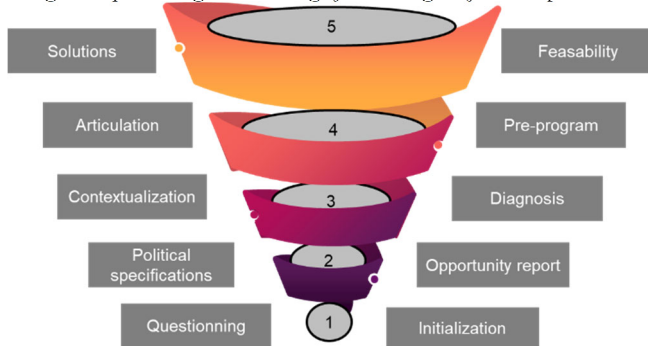
IV. RESULTS: MANAGEMENT OF THE PROJECT PROCESS IN ITS INTERACTION WITH THE URBAN LIVING LAB PROCESS, APPLICATION TO THE INNOVATION CAMPUS PROJECT OF THE COMMUNAUTÉ DE COMMUNES DU BASSIN DE POMPEY IN FRANCE

A. Management of the interaction between the Urban Living Lab process and the project process

This article focuses on the steps preceding the establishment of the operational program, which is a pivotal point marking the transition to the architectural design stage. For simplification, we've depicted this dialogue linearly, despite its inherently heuristic and transversal nature.

The interaction between the Urban Living Lab process and the project process followed a distinct sequence of stages, marked by varying degrees and methods of stakeholder involvement. This sequence provides an insight into the project's evolution from the formulation of the initial question to the exploration of complex issues and innovative solutions.

Diagram representing the modeling of the dialogue of the two processes:



1) Formulation of the initial question

The project's initial stage involved defining the original question in collaboration with the community services and elected representatives. This formed the first image of the project and informed subsequent stages. A collaborative workshop with the services of the municipality was conducted to understand the territory's key issues and projects, and the primary challenges the "Innovation Campus" project could address.

2) Formulation of political specifications

Twenty-four elected officials participated in establishing political specifications for the project. The workshop, structured in three stages—territory diagnosis, project ambition, and Campus project functions proposal—aimed to align the project with the local context and political objectives. All data were consolidated into an intermediate design object (IDO) - posters in this case - which informed the next stages.

3) Contextualization: mobilization of different stakeholder circles through two collaborative workshops

This phase involved mapping the stakeholders that emerged from the shared ambition and then organizing two workshops based on the data. The facilitation techniques and questions were tailored to the participants. Companies, economic actors, and academic experts were among the participants.

4) Articulation: Interviews and "distributed" cocreation with stakeholders

The development of the project and the challenge of engaging stakeholders necessitates the application of various collaborative approaches. The co-creation workshops that were organized facilitated the intersection of disciplines and expertise.

The Intermediate Design Objects (IDO) allowed the integration of different stages and the synchronization of various forms of engagement (distributed and plenary format). They depict the project's progression, the influence of challenges and disruptions that have enriched the discussion, and illustrate the connections and synergies that can be developed. We provide two examples of outcomes:

- **Integration Hub Conceptualization:** Interactions between regional adult training actors, industrial actors, and professional integration stakeholders led to envisioning the innovation campus project as an integration hub for centralized training efforts, talent acquisition, job opportunities, and foresight.
- **Need for Linking Art, Well-being, and Industrial Activity:** Industrial actors expressed the need for cultural and sporting activities in connection with local artists. This new theme, not identified initially, emphasizes the potential impact on employee well-being and the vibrancy this dynamic can bring to the project.

5) Exploring Complexity Nodes: Towards Solution Specifications

This phase entailed harnessing the collated data from stakeholders to uncover innovative solutions via appropriate reasoning methodologies, such as paradoxical reasoning and converting threats into opportunities. Some complexities encountered encompassed:

- **Engagement vs. Financial Commitment:** Maintaining stakeholder engagement is essential, yet the financial commitments of some stakeholders may be lacking. This necessitates efficient stakeholder management strategies to keep their interest and commitment, regardless of financial constraints.
- **Solution Uncertainty in Transitional Urban Planning:** Rapid urban changes and complex issues cause uncertainty about optimal solutions. Thus, an iterative, flexible project management approach is critical to navigate this uncertainty and continuously adapt solutions to changing urban needs.

Exploring these complexity nodes helps develop resilient, adaptable solutions better suited to dynamic urban environments and diverse stakeholder needs.

B. Impact of the Approach: Changes in Stakeholder Engagement and Collaboration.

The implementation of the ULL approach led to significant shifts in project dynamics:

- **Transformation in the Role of Political Officials:** Officials transitioned into contributors, viewing the

project as an open, value-adding process rather than a linear one. This shift minimized conflicts and fostered collaboration.

- **Spontaneous Links and Partnerships among stakeholders:** After the workshops, stakeholders began establishing collaborations and partnerships beyond the project framework, indicating the approach's success in fostering a collaborative spirit.
- **Holistic Project Understanding, Beyond Spatial Needs:** The approach allowed for data collection surpassing practical elements or spatial needs. This comprehensive understanding led to a holistic view of the project, identifying potential activities and services. Insights were categorized into four dimensions: the service/activity, the supporting space, involved stakeholders, and direct/indirect users.

These results underscore the approach's potential to positively affect project dynamics. However, these primarily qualitative outcomes are context-dependent. Future research is needed to fully understand and validate the approach's efficacy.

V. CONCLUSIONS AND PERSPECTIVES

In conclusion, this paper explored the operational results of conducting an urban project process in dialogue with an Urban Living Lab approach, as part of the Innovation Campus project of the Communauté de Communes du Bassin de Pompey in France. The results obtained affirmed the value of engaging stakeholders throughout the project process, which helped overcome the limitations imposed by the conventional urban project process's conclusion. In addition, the project has become a catalyst for innovation, driving various synergies and links between actors who share the same ecosystem.

However, the municipality's dual role as both a funder and a solution provider has posed challenges in attracting local stakeholders or prospective financiers. Also, the project needs to focus on a particular axis or project a unique image to distinguish itself from similar projects.

- The central role of the municipality in the process sometimes posed challenges in stakeholder engagement. The reputation of the community as a funder and bearer of the solution, anchored in the memory of the actors, made it difficult to engage local stakeholders or potential funders.
- The project, due to its open approach, wide spectrum of ambitions, and multitude of proposed solutions, struggled to establish a precise 'identity'. Despite the desire to diversify functions and stakeholders, the project needs to prioritize a specific axis or reflect a specific image that will differentiate it from similar equipment.

This paper, based on a single case study, has inherent limitations. The findings provide valuable insights into applying the Urban Living Lab approach in Bassin de Pompey's context, but may not generalize to other settings. The impact assessment, primarily qualitative, may miss some

nuances due to interpretation biases. Despite this, the study's rich, contextual insights can guide similar approaches in other contexts and form a basis for future research. Going forward, translating data into a physical program using co-design techniques will be crucial to strengthen the link between programming and architectural delivery. Extending this approach to other urban projects would help understand its limitations and opportunities.

MATCH & CONTRIBUTION

This article explores the potential of Urban Living Labs as an alternative approach for upgrading urban development projects. It presents a case study conducted in a specific urban context to verify the results of applying of this approach in the public project management process. The study shows that an Urban Living Lab process carried by a municipality, can enhance collaboration between stakeholders, and promote resilience in project governance. The article contributes to the literature on innovative approaches to urban development projects, providing insights into the potential of Urban Living Labs to address persistent challenges in urbanism and urban planning management.

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