



**Politecnico
di Torino**

Strategic Acupuncture

*On the Integration of The Strategic Choice
Approach and Urban Acupuncture.
The case of the Train-tram in Cali, Colombia*

Author

Ana María Salazar Salazar

Master in Architecture Construction City
Politecnico di Torino

Supervisors

Prof. Isabella Lami
Prof. Elena Todella
Prof. Flor Inés Marín
Prof. Jhon Fredy Bustos

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Acknowledgements.

This work arises from a personal search — perhaps even a struggle — to develop decision-making. I have always found it difficult to make choices, and this research became a way to gain greater control in my own life. Along this irregular path, I have tried to bring design, urbanism, and communicative dimension of participation into a meaningful framework.

None of this would have been possible without the patience and support of my family, friends, and tutors. I would like to express my sincere gratitude to the **Pontificia Universidad Javeriana de Cali**, for being a bridge that made this opportunity possible and for fostering a community that is always ready to collaborate and support. I am deeply thankful for the **Politecnico di Torino**, where I have learned not only about other layers of academic pursuit that I wouldn't have imagined, but also the chance to learn more about myself, others, and the value of broadening my perspectives.

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Ultimately, this work represents both a passion and a challenge: a personal one, and a collective one that we continue to face as a community in Cali.

Abstract.

Contemporary urban challenges—climate change, rapid urbanization, socio-economic disparities, and disruptive events—exceed the capacity of traditional rational planning paradigms. Planners increasingly confront incomplete information, competing stakeholder values, and unpredictable shocks, necessitating adaptive frameworks capable of managing inherent uncertainty while implementing concrete interventions.

This thesis integrates two complementary approaches: the Strategic Choice Approach (SCA), a Problem Structuring Method that incorporates uncertainty into collaborative decision-making (Friend & Hickling, 2005; Lami & Todella, 2019, 2023), and Urban Acupuncture (UA), a design methodology employing small-scale, catalytic interventions to generate systemic urban transformation (Solà-Morales; Hemingway, 2022; Khaing et al., 2024). While SCA provides decision-structuring tools without design guidance, and UA offers design responses without decision structures, their convergence under the paradigm of adaptive planning (Rauws, 2017) creates a framework wherein uncertainties are acknowledged and interventions evolve as adaptive experiments.

The research is grounded in Santiago de Cali's Tren de Cercanías del Valle del Cauca (TCV) project, a contested metropolitan axis occupying a former 22-23 km railway corridor. The TCV exemplifies contemporary urban planning tensions: the need to relocate informal settlements and businesses, secure multi-billion COP national co-financing, and integrate sustainable mobility with urban renewal (Corredor Verde vision). Rather than a complete project case study, the thesis uses this corridor as an empirical context to map uncertainties, identify stakeholder perspectives, and analyze planning tensions through participatory workshops.

The research employs the SCA framework with architecture students in Cali, examining how "Strategic Acupuncture" —exercises translate identified uncertainties into small-scale interventions these experiments within broader discussions on SCA and UA application in urban regeneration.

By synthesizing theory with practice, this thesis advances the SCA-UA integration conceptually and proposes a workshop-tested methodology applicable to urban renewal processes in Cali and comparable global contexts.

Key words: Strategic Choice Approach (SCA), Urban Acupuncture (UA), Uncertainty in urban planning, Problem Structuring Methods (PSM), Adaptive planning, Valle del Cauca Commuter Train (TCV) / Cali Green Corridor, Participatory workshops.

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1. INTRODUCTION

Cities today are faced with increasingly complex challenges that require new approaches in planning and intervention. Global phenomena such as climate change, rapid urbanization, socio-economic disparities, and disruptive events like pandemics or political instability continually and unpredictably reshape urban environments.

Conventional planning strategies that rely on rigid master plans and centralized decision-making are ill-equipped to address the inherently Uncertain Dynamics of contemporary urban development (Levin et al., 2012; Lami & Todella, 2019). Therefore, **instead of seeking a single optimal solution, contemporary urban development requires adaptive frameworks** that can navigate persistent political pressures and manage the inherent ambiguity of interrelated decision-making agendas.

Consequently, planners must develop the capacity to navigate incomplete data, conflicting stakeholder values, and disruptive shocks, all while simultaneously implementing concrete interventions aimed at enhancing urban quality. These conditions call for planning approaches that both structure collective decision-making under uncertainty and guide concrete, context-sensitive interventions.

Within this context, this thesis investigates how the **Strategic Choice Approach (SCA)** and **Urban Acupuncture (UA)** can be articulated as a coherent planning framework.

SCA, as articulated by Friend and Hickling (2005), functions as a Problem Structuring Method that explicitly *incorporates Uncertainty into Decision-making*, offering tools for stakeholders to collaboratively define, design, compare, and select strategic pathways.

Meanwhile, **UA**, championed by Solà-Morales, Lerner, Casagrande and more recently by Hemingway (2022) and Khaing et al. (2024), is conceived as a logic of targeted, small-scale interventions intended to trigger wider systemic effects. It advocates for small-scale “*Catalytic Interventions*” designed to instigate systemic urban transformation by targeting critical “*Pressure points*” within the urban fabric.

Thus, this thesis proposes the integration of these two distinct approaches. SCA structures decisions but does not provide an explicit design counterpart on its own, whereas UA generates design responses but offers limited structuring tools. **In this thesis, they are brought together within a quasi-experimental setup, in which the SCA methodology is applied with the intention of providing catalyst interventions and time-efficient ideas.**

Their convergence under the paradigm of adaptive planning (Rauws, 2017; Kato & Ahern, 2008) establishes a framework wherein uncertainties are not suppressed but acknowledged, and where interventions are conceptualized as adaptive experiments capable of evolution.

The research is anchored in the current metropolitan project **Tren de Cercanías del Valle del Cauca (TCV)** in Santiago de Cali, Colombia. This axis involves the former railway right-of-way, roughly 22 to 23.14 kilometers long, which is central to planning debates concerning its future as a multimodal transport and ecological corridor (EMRU, 2016; EMRU, 2018; Concejo de Santiago de Cali, 2025; Unión Temporal Espacio Colectivo + OPUS, 2016).

The TCV, is planned as a modern electric passenger rail system, is intrinsically linked to the **Corredor Verde**'s urban renewal vision (Gobernación del Valle del Cauca, 2021). The implementation of this axis faces ongoing contention, including the **necessity of relocating informal settlements and businesses** that currently occupy the right-of-way (Zapata, 2025), and significant **political and financial debate** surrounding securing the required national co-financing for the major \$12 billion COP investment (Marmolejo, 2025; SITREN, 2025). Rather than constituting a full project-based case study, the thesis utilizes this contested corridor as an empirical context to map uncertainties, identify actors, and analyze planning tensions, making it a common reference point for participatory workshops.

Within this setting, the incorporation of SCA+UA is tested with architecture students in Cali, focusing on how their exercises translate the identification and negotiation of uncertainties through SCA into catalytic interventions. These interventions are then compared and revised against the ongoing TCV project to examine aligned visions, goals, and the effectiveness of an alternative way of organising the planning conversation. These experiments are positioned within a wider discussion on the application of SCA and UA in urban regeneration efforts.

Accordingly, this thesis seeks to address:

How can the Strategic Choice Approach support Urban Acupuncture in managing uncertainty in urban planning?

Subsequently, the quasi-experimental experience with the architecture students is used to address a set of secondary research questions derived from the Strategic Choice Approach literature (Friend & Hickling, 2005) and its extension to disruptive events (Lami & Todella, 2019).

- 1. Which types of uncertainty**—concerning the working environment, related decisions, guiding values, and disruptive events—emerge most clearly in the Green Corridor workshops, and how can they be structured within the SCA framework?
- 2. What methodological insights** from these workshops help outline a replicable way of linking structured decision-making through SCA with catalytic Urban Acupuncture intervention?

By synthesizing theoretical constructs with practical application, this thesis aims to contribute both conceptually—by advancing the integration of SCA and UA within the framework of adaptive planning—and practically, by proposing a workshop-tested methodology capable of informing ongoing urban renewal processes in Cali and comparable global contexts.

Keywords: Strategic Choice Approach (SCA), Urban Acupuncture (UA), Uncertainty in urban planning, Problem Structuring Methods (PSM), Adaptive planning, Valle del Cauca Commuter Train (TCV)/Cali Green Corridor, Participatory workshops.

2. THEORETICAL FRAMEWORK

Urban planning operates under conditions of profound uncertainty. Unlike technical problems that can be solved through deterministic models, planning issues are characterized by incomplete knowledge, contested values, and unpredictable dynamics. As Christensen (1985) notes: *Planning challenges vary according to the degree of uncertainty surrounding both ends (goals) and means (strategies), producing different types of planning problems that range from technical situations of high certainty to chaotic contexts where neither ends nor means are clear.*

Rittel and Webber's (1973) notion of "**Wicked Problems**" further illuminates this condition, describing urban issues that are **ill-defined, interconnected, and resistant to definitive solutions, whose boundaries shift as stakeholders reinterpret the problem.** Wicked problems are not "solved" in a classical sense but "managed", requiring decision-makers to navigate conflict, negotiate meaning, and iteratively adjust interventions; this complexity is intensified in cities as complex adaptive systems, where multiple interactions, path dependencies, and feedback loops generate nonlinear and unpredictable dynamics (Rauws, 2017).

Uncertainty itself is not maintained in a uniform condition, rather, as Dequech (2000, 2001) distinguishes between **ambiguity**, which stems from missing but knowable information, and **fundamental uncertainty**, which reflects the inherent open-endedness of the future,

where probabilities cannot be assigned because new events, actors, and innovations may always emerge.

These categories resonate with planning practice, where both measurable unknowns and deep unpredictability coexist, and in this thesis they provide a conceptual setting for the operational uncertainty types used in the Strategic Choice Approach (SCA): **Uncertainty about the working environment (UE), Related decisions (UR), Guiding values (UV), and Disruptive events (UD)**, the latter introduced by Lami and Todella (2018, 2019).

Recognizing uncertainty as constitutive of urban planning—whether framed through wicked problems, complex-systems dynamics, or the economic distinction between ambiguity and fundamental uncertainty—underscores the need for decision-making methodologies that structure choices without assuming stability or full predictability.

In response to this persistent uncertainty, scholars and practitioners have developed a variety of methodological approaches (Rittel & Webber, 1973; Rauws, 2017; Hou, Li, & Song, 2022). A broad family of approaches known as **Problem Structuring Methods (PSMs)** helps structure complex, multifaceted problems without presuming certainty, including Soft Systems Methodology (SSM), Strategic Options Development and Analysis (SODA), Group Model Building (GMB), and Value-Focused Thinking

(VFT) (Rosenhead & Mingers, 2001; Rouwette, 2011; Franco & Rouwette, 2022; Friend & Hickling, 2011). Complementary traditions such as adaptive planning and scenario planning explicitly address change and non-linearity (Rauws, 2017), while communicative planning theories emphasize negotiation, deliberation, and meaning-making as inherently political processes (Hillier & Healey, 2008).

Within this methodological landscape, SCA stands out for its explicit handling of uncertainty through an operational typology (UE, UR, UV, UD) and its iterative four-mode framework for collaborative decision-making—Shaping, Designing, Comparing, and Choosing (Friend & Hickling, 2005; Westbury, 2009). Friend and Hickling initially identified three uncertainty types (UE, UR, UV), and recent work by Lami and Todella (2019) extends this to include disruptive events (UD), further aligning SCA with the realities of contemporary planning.

In this thesis, **SCA serves as the primary analytical and participatory framework through which uncertainty is structured and managed**, enabling the integration of **UA as a design response**.

SCA is deployed as a Problem Structuring Method that explicitly organizes uncertainty, supports negotiation between actors, and enables iterative decision-making across its four modes (Friend & Hickling, 2005; Mingers & Rosenhead, 2004). Its operational uncertainty

typology (UE, UR, UV, UD) offers a practical lens for analyzing how participants identify, frame, and manage uncertainty during collaborative planning processes (Friend & Hickling, 2005; Lami & Todella, 2019; Lami & Tavella, 2019).

The selection of SCA responds to the high uncertainty, multi-actor negotiation, and value pluralism that characterize urban planning conditions that are intensified when small-scale, catalytic interventions associated with Urban Acupuncture are considered (Rittel & Webber, 1973; Lerner, 2014). The next part of the thesis elaborates SCA's four modes and its operational uncertainty typology, establishing the analytical framework applied in the participatory workshops and their linkage to UA-inspired interventions in Cali's Green Corridor.

2_1. Strategic Choice Approach as Structuring Tool

The Strategic Choice Approach (SCA), developed by Friend and Hickling, is a Problem Structuring Method that distinguishes itself through its explicit focus on structuring uncertainty in group decision processes rather than attempting to eliminate it.

Unlike rational–comprehensive planning models that assume predictability, **SCA acknowledges that planners operate with incomplete information, divergent stakeholder values, and external dependencies that cannot be fully controlled.** The method supports collaborative decision-making by making these uncertainties visible, classifying them, and linking each type to appropriate responses.

SCA was conceived to address what Rittel and Webber describe as **wicked problems: challenges that cannot be neatly defined, that shift as stakeholders reinterpret them, and that involve interdependencies, conflicting values, and multiple legitimate perspectives.** Wicked problems resist traditional problem-solving methods because they lack agreed criteria for success, involve numerous actors with divergent interests, and evolve as decisions unfold.

SCA responds to this wickedness not by seeking a single optimal solution, but by structuring the sources of difficulty into four operational categories of uncertainty, each requiring a different kind of response:

- **UE, Uncertainty about the working environment:** refers to gaps in technical knowledge or data—the “knowable unknowns” that can be addressed through research, investigation, or expert analysis, for example missing information about user behaviour, environmental impacts, or infrastructure capacity.
- **UR, Uncertainty about related decisions:** concerns interdependencies and lack of control over decisions taken by external actors such as other institutions, stakeholders, or market forces, and is addressed through coordination and negotiation.
- **UV, Uncertainty about guiding values:** captures disagreements or ambiguities over objectives, priorities, and what constitutes “success”, calling for dialogue, political negotiation, and often provisional compromises.
- **UD, Uncertainty about disruptive events:** relates to rare, high-impact shocks—pandemics, climate crises, political ruptures, infrastructural failures—that are difficult to predict but demand contingency planning; this fourth category, proposed by Lami & Todella, extends the original framework to account for the systemic volatility characteristic of contemporary urban contexts, particularly where institutional fragility, political cycles, and environmental risks amplify planning uncertainty.

By naming these four types, SCA provides a diagnostic tool that helps groups disaggregate the complexity of wicked problems into more manageable components.

Rather than treating uncertainty as a single overwhelming condition, participants can ask whether a difficulty reflects a knowledge gap (UE), a coordination problem (UR), a value conflict (UV), or a potential shock (UD), and each diagnosis points toward a different kind of action—investigation, negotiation, dialogue, or contingency planning.

This diagnostic function links directly to SCA’s process architecture, which structures the planning process into four iterative modes that move from problem recognition to commitment (Friend, J & Hickling, A. (2005). p. 18).

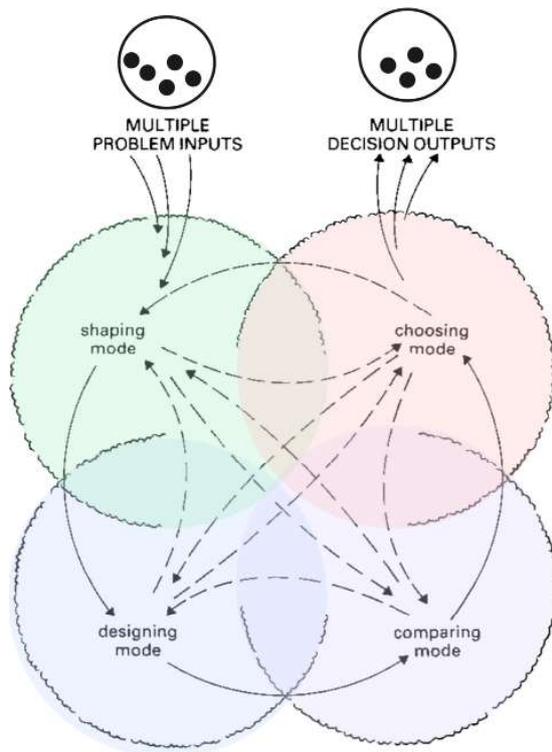


Figure 1, adapted from the original: Friend, J & Hickling, A. (2005). *Planning under pressure: The strategic choice approach* (3rd ed., p. 18, Fig. 8 “A Process of Strategic Choice”). Elsevier.

In the **Shaping Mode**, participants clarify the decision problem by identifying stakeholders, mapping the areas where decisions must be made (decision areas), and tracing their inter-connections (decision links) to identify a shared focus or “focus problem”.

In the **Designing Mode**, they generate and explore options by developing mutually exclusive strategies for selected decision areas, often using visual aids such as option bars or scheme diagrams; at this stage, creative exploration and the articulation of contrasting possibilities are more important than convergence.

The **Comparing Mode** evaluates trade-offs, as participants assess how different options perform against comparison areas derived from their values and priorities, making visible the conflicts and synergies inherent in each configuration.

Finally, in the **Choosing Mode**, the group constructs a “commitment package”: a sequence of actions to undertake now, issues to explore further, and contingency plans for unforeseen circumstances, thereby committing to progress while acknowledging residual uncertainty.

These four modes are not rigidly sequential; groups cycle back when new information emerges or values shift, supporting a learning-oriented, iterative style of decision-making that is particularly valuable where perfect information is impossible and conditions evolve over time.

Although SCA offers a robust core structure, contemporary applications show that it can be productively combined with other methods and tools to enhance group reasoning and connect analysis with design. Empirical studies

demonstrate how SCA has been blend with storytelling, cognitive mapping, and multi-criteria techniques such as the Analytic Hierarchy Process or Analytic Network Process to better relate factual analysis to stakeholder preferences and priorities.

In this thesis, the integration of SCA with Urban Acupuncture (UA) represents a similar hybrid move: **SCA provides the decision structuring and uncertainty diagnosis, while UA offers the design vocabulary and tactical interventions through which uncertainties can be experimentally tested, exposed, and in some cases reduced.**

Within this research, SCA functions as the primary analytical and participatory framework for a series of workshops conducted in Cali, Colombia. By applying SCA's four modes and

uncertainty typology, the workshops enable architecture students to structure the complex, contested planning context of the Green Corridor, identify competing stakeholder interests and dependencies, and propose small-scale interventions aligned with UA principles.

These interventions are conceived as catalytic experiments that can address immediate uncertainties while preserving flexibility for larger strategic shifts, and the operational typology of UE, UR, UV and UD guides the analysis of how participants recognise, articulate, and manage different sources of difficulty.

In this way, the workshops provide the empirical basis for assessing whether and how the combined use of SCA and UA can support more adaptive urban planning practice.

2_2. Urban Acupuncture as Design Counterpart

Urban Acupuncture (UA) is introduced here as the **design- and action-oriented counterpart to the SCA**. Emerging from the foundational writings of Solà-Morales (2008), Casagrande (2012) and Lerner (2014), UA conceptualizes urban transformation as a set of small, precise, catalytic interventions in the urban fabric that are capable of triggering wider systemic change (see figure 2).

Rather than pursuing comprehensive redevelopment, UA seeks to **activate the “nervous system” of the city through problem-focused, strategic touches at carefully chosen sites**, similar to how a

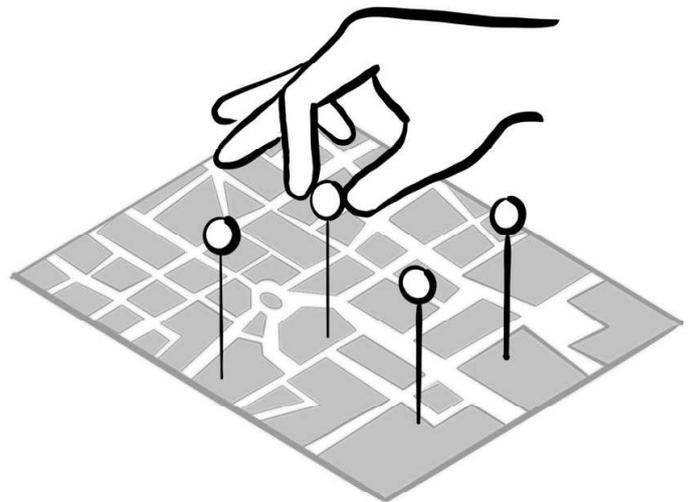


Figure 2. Urban acupuncture illustration. Source: Adapted and drawn by the author.

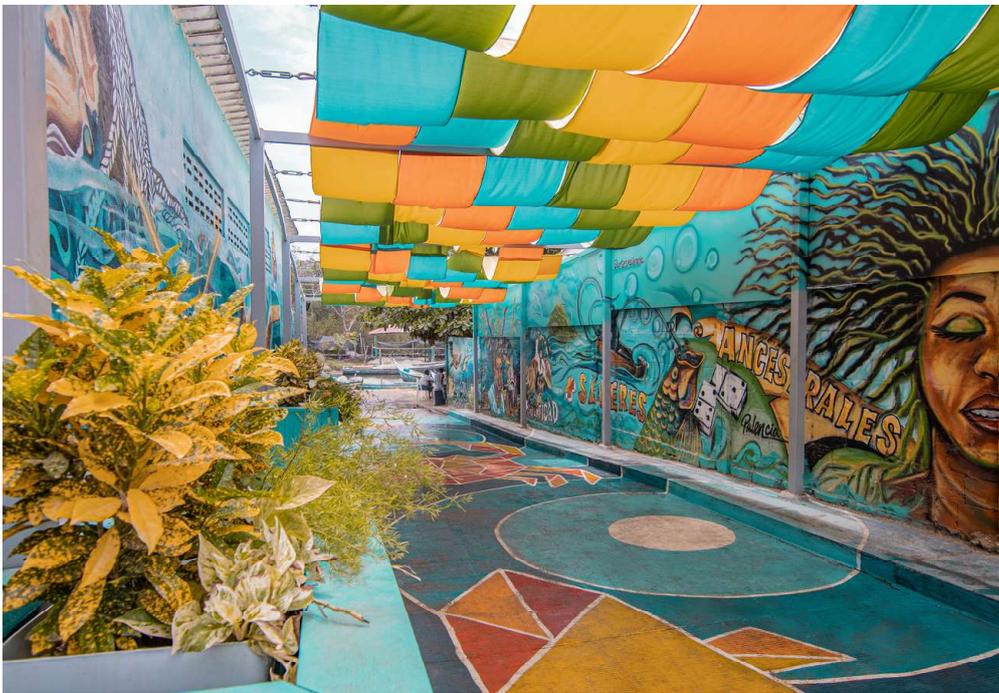


Figure 3: Example of Tactical Urbanism

Source: Iñiguez, A. 2025. *Dialoguing with the environment in public space revitalization: Santa Ana, Isla de Barú, Calle del Pescador | Fishermen Street | Archdaily*



medical acupuncturist relieves stress in the human body by targeting specific pressure points (Lerner, 2014; Balicka et al., 2021, p. 409).

UA is inherently **problem-based**: interventions typically begin with the identification of a local “**sick point**” or pressing issue (Lerner, 2014). These may be spatial (leftover or residual spaces), social (exclusion, insecurity), or ecological (heat islands, degraded watercourses). Recent studies show how UA-inspired projects can mobilize community engagement, support sustainability transitions, and reimagine under-utilized infrastructures such as abandoned railways and viaducts (Houghton et al., 2015; Al-Hinkawi & Al-Saadi, 2020; Moussavi et al., 2024; Hemingway, 2024, p. 3).

Despite its growing popularity, UA faces important methodological and theoretical gaps (Russo, 2016). **It often lacks structured decision-making frameworks to manage uncertainty and negotiate among stakeholders, and much of the literature is rooted in grey sources or descriptive case studies rather than systematic, replicable methods** (Hemingway & De Castro Mazarro, 2022; Urban Design Lab Educations Pvt. Ltd., 2025).

UA is also frequently conflated with **tactical urbanism**—a practice that relies on temporary, low-cost interventions such as pop-up bike lanes, parklets, or street closures to test ideas in real time—whereas UA implies a deeper strategic intent and longer-lasting catalytic effects.

Tactical urbanism, often referred to as “**DIY urbanism**” or “**planning-by-doing**,” is a grassroots-oriented approach characterized by temporary, low-cost, and scalable initiatives, intended to reclaim space and test new urban conditions in a timely, informal manner (see figures 3-4 for an example).

While both approaches utilize small-scale actions, UA implies a deeper strategic intent and longer-lasting catalytic effects. While tactical urbanism focuses on “testing” ideas through temporary installations, UA is a **theory-driven method** that aims to “**heal**” the city through precisely placed stimuli meant to create long-term ripple effects tied to broader urban transformation goals.

This thesis positions UA as the design practice that can operationalize the structured outcomes of SCA, linking decision-making processes with physical interventions in the urban fabric.

2_3. Adaptive Planning as Integrative Paradigm

Adaptive planning provides the conceptual glue that links uncertainty, SCA, and Urban Acupuncture into a single theoretical lens. While uncertainty defines the context of contemporary urban planning, SCA offers a structuring tool for decision-making, and UA represents a design response; together they converge within an adaptive planning paradigm. Adaptive planning emphasises that cities should not be guided toward fixed end-states, but made more adaptable by creating conditions in which multiple possible futures can emerge, learning from experiments, and revising strategies over time (Rauws & De Roo, 2016; Rauws, 2017; Kato & Ahern, 2008).

Within this view, wicked problems are not resolved once and for all but reframed and revisited as circumstances change, and planning becomes an ongoing process of adjustment rather than a one-off blueprint. SCA contributes by providing structured conversations that support collective reflection, negotiation, and incremental decision-making through its four modes—Shaping, Designing, Comparing, and Choosing—and its operational uncertainty typology (UE, UR, UV, UD), including disruptive events. UA, in turn, translates these structured decisions into small-scale spatial interventions that can be tested, monitored, and iteratively adjusted, functioning as adaptive experiments in the urban fabric.

The theoretical framework of this thesis is therefore organised around four interdependent propositions:

First, **uncertainty is intrinsic to urban planning** and must be understood through the lenses of wicked problems, fundamental uncertainty, and disruptive events rather than as a temporary information deficit.

Second, **SCA provides a structured methodology for navigating this uncertainty**, enabling collective decision-making in complex contexts via its iterative modes and uncertainty categories.

Third, **UA converts the outcomes** of such structured decision-making **into catalytic, problem-based interventions** in the city, linking abstract choices with concrete spatial change.

Finally, **adaptive planning** supplies the overarching paradigm that **positions uncertainty** not as a barrier but **as a condition for experimentation, learning, and transformation.**

Taken together, these elements form a coherent theoretical foundation for investigating how SCA and UA can be combined to address uncertainty in urban planning practice, particularly in settings marked by wicked problems, multiple competing stakeholders, and constrained resources.

3. CASE STUDY

-THE GREEN CORRIDOR-

Valle del Cauca is undertaking a major Metropolitan project **focused on sustainable mobility, regional integration, and urban renewal**. Key initiatives include the Plan Integral de Movilidad Urbana (PIMU) and the Corredor Verde (Green Corridor), an ecological, zero-emission transport axis on old train tracks (see figures 4). Central to this is the Tren de Cercanías del Valle del Cauca (TCV), a light rail connecting Cali with Jamundí, Yumbo, and Palmira, governed by the Autoridad Regional de Transporte (ART) and Ente Gestor Regional (EGR/SITREN GV S.A.S.).

The goal is to **shift movement paradigms by prioritizing public and non-motorized transport**, addressing MIO inefficiencies, high inter-municipal costs, and urban decay. **The Calle 25 opportunity area and the Plan Especial de Manejo y Protección (PEMP) for Galería Santa Elena (2024-2036)** are critical test cases, integrating heritage, development, and environmental restoration. The project relies on sophisticated technical, financial, environmental, and social strategies to ensure a sustainable, inclusive, and well-coordinated urban transformation.

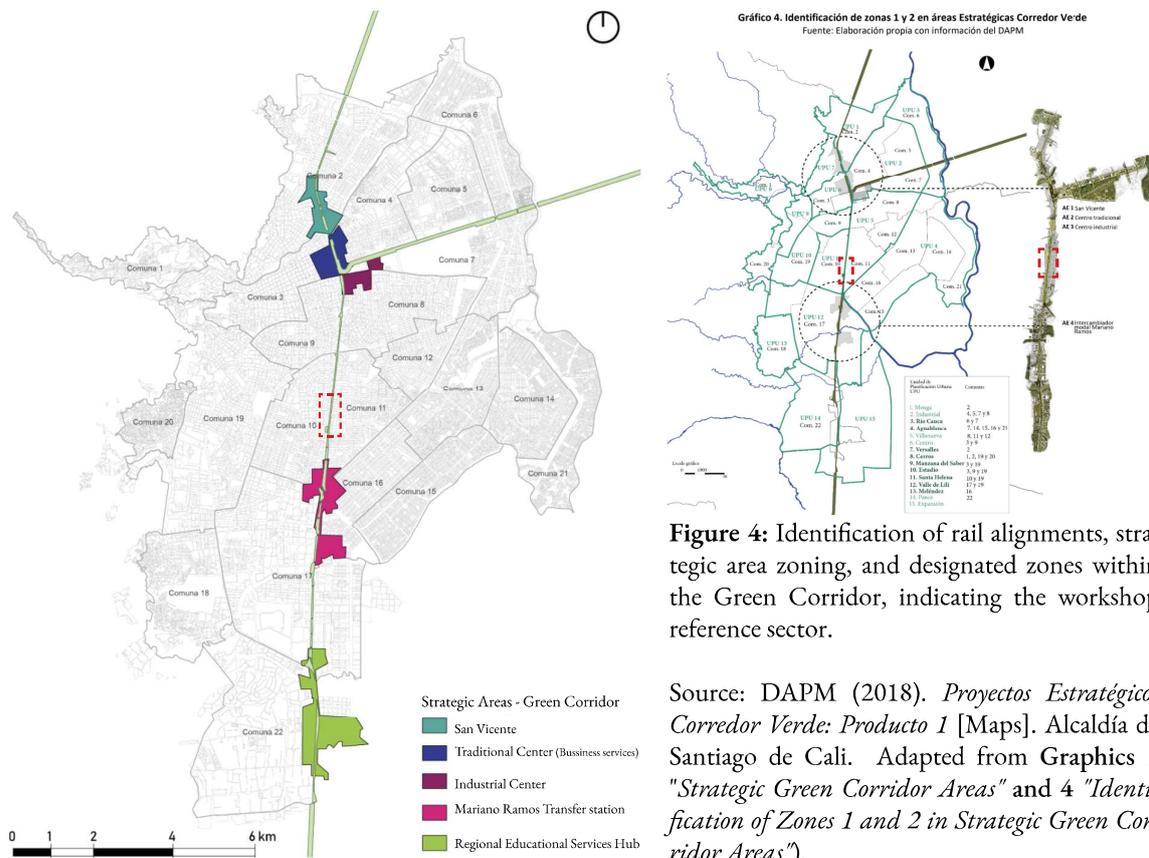


Figure 4: Identification of rail alignments, strategic area zoning, and designated zones within the Green Corridor, indicating the workshop reference sector.

Source: DAPM (2018). *Proyectos Estratégicos Corredor Verde: Producto 1* [Maps]. Alcaldía de Santiago de Cali. Adapted from Graphics 1 "Strategic Green Corridor Areas" and 4 "Identification of Zones 1 and 2 in Strategic Green Corridor Areas".



Figure 5: Milenioscuro. (2009). *Relief map of Colombia* [Map]. Wikimedia Commons. [https://commons.wikimedia.org/wiki/File:Mapa_de_Colombia_\(relieve\).svg](https://commons.wikimedia.org/wiki/File:Mapa_de_Colombia_(relieve).svg)

To understand the history of the region, it is necessary to first grasp its topography. Colombia occupies a strategic position with access to both the Pacific and Atlantic oceans and is traversed by three Andean mountain ranges that rise from sea level to more than 5,000 metres, provided with dense and diverse biomes.

Cali lies between the Western and Central Cordilleras, in the valley carved by the Cauca River, the country's second most important waterway, and is located close to the main Pacific port of Buenaventura with a well-developed connection to the capital, Bogotá.

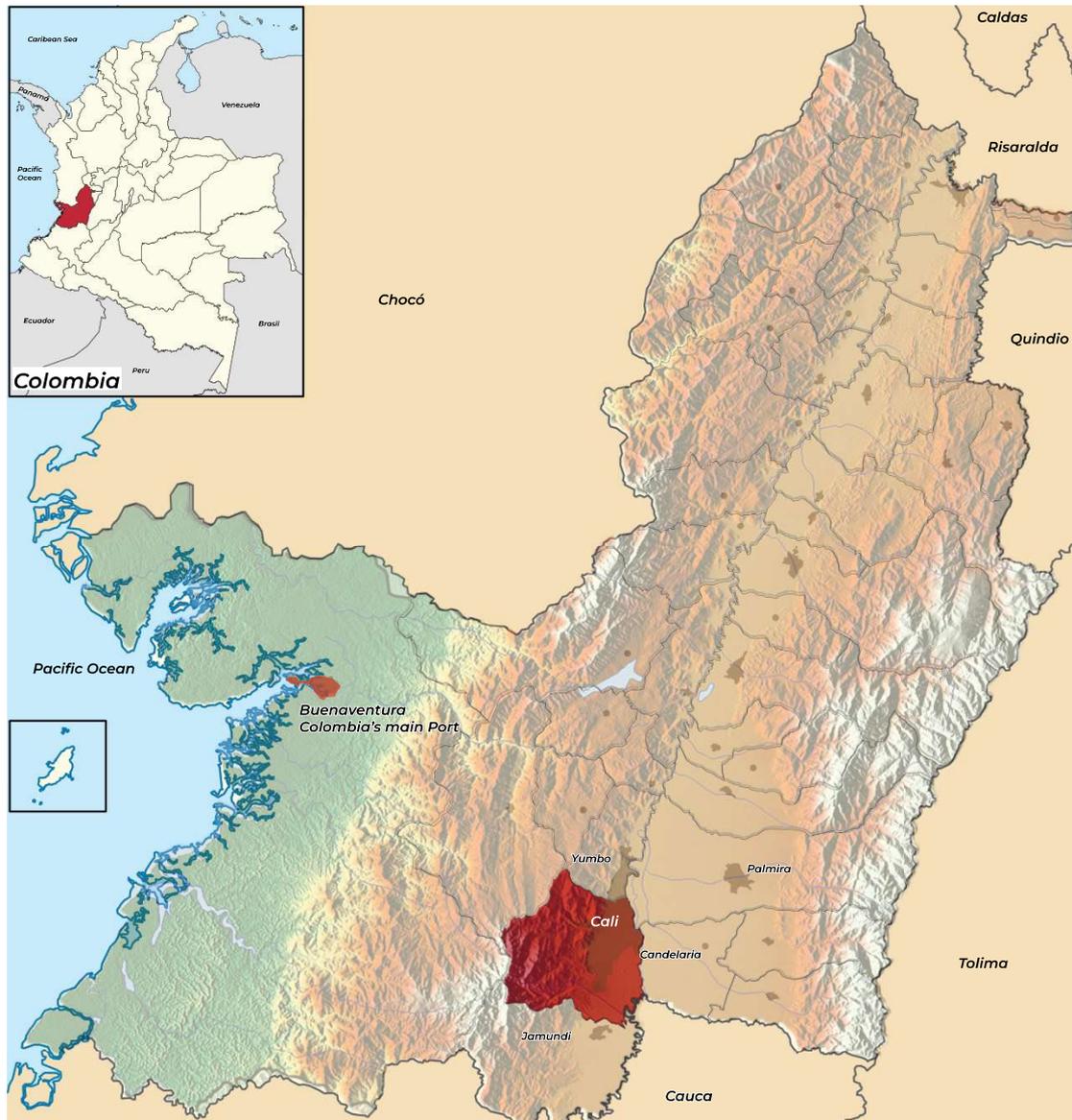


Figure 6: Location of Cali and Buenaventura within the Valle del Cauca Department, Colombia.
 Source: Adapted from Mapa del Municipio de Santiago de Cali, Valle del Cauca (Colombia) by Milenioscuro (2011), and Valle del Cauca Department map by Dr. Brains (2012), Wikimedia Commons.

The Valle del Cauca Department, with the country’s main port on the Pacific Ocean, the support of a major water source in the Cauca River, and a vast valley suitable for agriculture and industrial production, provided the ideal conditions for development.

Cali was chosen as its capital and grew intrinsically within these same circumstances (fig. 6). With the expansion of road connections, the rise of industry, and the relative safety it offered

during the armed conflict, Cali—like many other Latin American cities—experienced a significant increase in population from surrounding areas, as people sought better opportunities and stability. As a result, Cali became the priority center for the development of services and infrastructure, while the neighboring towns evolved into satellite cities, serving primarily as residential areas. Work, education, healthcare, and cultural activities all concentrated in Cali, reinforcing its role as the region’s hub.

3_1. Historical Context

The Evolution of The Railway

1870's-1915



Figure 7: Diaz, J. (1900) Llegó el tren a la estación. Cali (The train arrived to the station. Cali. Biblioteca Departamental Jorge Garcés Borrero

The railway in Cali emerged from a longstanding strategic need to connect Colombia's interior with the Pacific coast. Early proposals date back to 1863, but the construction officially began in 1878. In the early decades, the line advanced barely 1.5km per year (due to wars and the difficult terrain). Nevertheless, by 1915, the first train arrived in Cali, marking the completion of the Buenaventura–Cali line (the Port and the nearest City) and fundamentally transforming transportation in the region (Imagen Del Ferrocarril En La Numismática Colombiana, n.d.), (Jimenez, 2024). This railway arrival catalyzed Cali's urban development, transforming the town from a settlement to one of the 4 principle cities in the county.

To connect the train station to the historic downtown, city leaders commissioned Avenida Rafael Uribe Uribe (nowadays, Carrera 1), built around 1914–1915. This infrastructure improvement initiated a period of rapid urban

growth for the city (Municipio de Santiago de Cali, 2018).

1920's-1950's

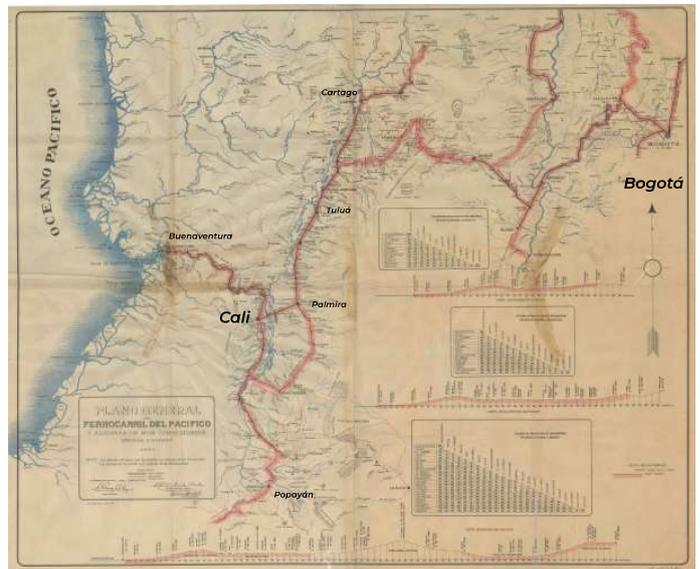


Figure 8: General map of the Pacific Railroad. (Source: Compañía del Ferrocarril del Pacífico, 1924).

By the early 20th century, the railway network rapidly expanded. By 1917, tracks reached Palmira; by 1920, Tuluá; by 1923, Cartago (WebTeam, 2022), (Imagen Del Ferrocarril En La Numismática Colombiana, n.d.).

Southward, a branch line from Cali toward Popayán was started in 1914 and completed by 1925, passing through Jamundí. **This southern line ran along what is today the Calle 25 corridor, the historic railway route that is the focus of the contemporary Corredor Verde project** (colaboradores de Wikipedia, 2025; Juan Santiago, 2012).

By mid-century, the Calle 25 rail corridor was a bustling artery of commerce. To accommodate growing traffic, a grand new central station was built in the early 1950s—the Estación del Ferrocarril, inaugurated in December 1953. This modernist station became an architectural icon and was later declared a National Monument. The 1950s represented the peak era of train travel in Cali—the railroad was thriving and had become one of the most developed transportation systems in the country.

1956-1989



Figure 9: Railway's Warehouse after the 7th of August Explosion (Source: Biblioteca Departamental Jorge Garcés Borrero).

On the night of August 7, 1956, a convoy of army trucks carrying dynamite, parked along Carrera 1 between Calle 25 and 26, accidentally exploded. The Cali Explosion killed approximately 4,000 people, injured 12,000 others, and destroyed 41 city blocks—including the railway station and surrounding facilities (Alcaldía de Santiago de Cali, 2023)(see figure 9 and 10).

Despite this tragedy, rail service continued for several more decades, though at diminishing intensity as investment and freight shifted to the road network (Pachón & Ramírez, 2006).

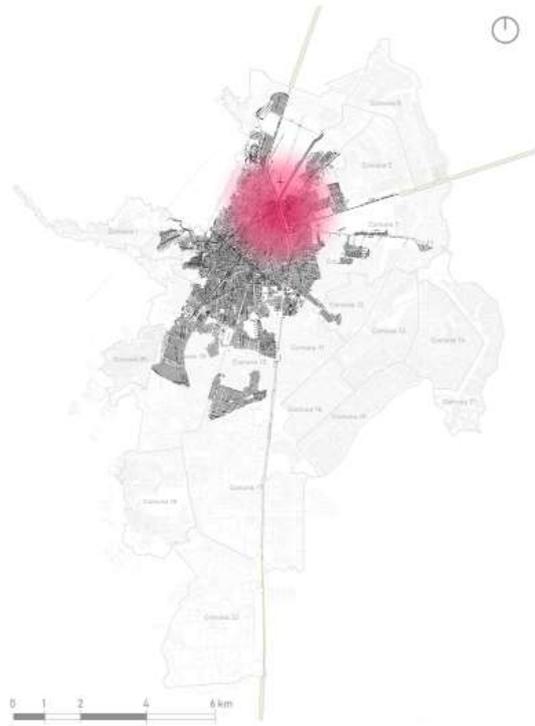


Figure 10: Range of the 7th of August explosion overlaid on maps of Cali (1957 and 2018).

(Source: Figure created by the author, adapted from Graphic 1 in DAPM (2018); Caro (1975) as reproduced in *Atlas histórico de Cali: Siglos XVIII–XXI* (Mapoteca Mario Carvajal, Universidad del Valle, 2010); and Dannybalanta (2019), Wikimedia Commons).

Beginning in the 1960s and through the 1980s, the railway system entered a prolonged decline (Díaz, 2016; Rees, 1987). Even though the city itself kept increasing its population—which had already seen its highest historical growth rate earlier in the century—due to its importance as an industrial region, it also faced significant immigration from surrounding regions like Chocó, Nariño, and Cauca,. This population pressure was often driven by displacement due to the Armed Conflict, specifically noted in areas like Mariano Ramos and Comuna 11 (Departamento Administrativo de Planeación Municipal de Santiago de Cali, 2018).

Road transportation became increasingly dominant; the Pan-American Highway and improved truck routes offered more flexible point-to-point transport. Railway infrastructure suffered from chronic under-investment and political neglect. By the late 1980s, Colombia's rail system was in crisis. Finally, in 1989,

the national government liquidated Ferrocarriles Nacionales de Colombia, effectively ending regular train service in most of the country, including Cali (Decretos 1586 & 1591 of 1989; Pachón & Ramírez, 2006).

1990's-2010's



Figure 11: Galería Santa Elena: the market complex occupying the entire block, with the highlighted right-of-way ('planchón') densely taken over by informal commercial stalls (Source: Raúl Palacios - El País, 2025).

In the 1990s and 2000s, there were limited attempts to revive the service under private concessions occurred, but within Cali proper, the tracks saw virtually no use (Santiago, 2012). With no trains running and minimal maintenance, the right-of-way gradually transformed into an informal green belt amid the urban landscape (EMRU E.I.C., 2016).

With the absence of organized rail transit, communities began occupying the right-of-way terrain (Zapata, 2025b). From the 1980s and especially the 1990s, informal housing, auto repair shops, scrap yards, and informal businesses appeared along the former track (DAPM, 2020, p. 86). Today, along Calle 25 and parallel Calle 26, the rails have been largely stolen or buried under asphalt and weeds (Zapata, 2025b).

In the north, La Playita was taken over by bus

and truck workshops (Municipio de Santiago de Cali, Departamento Administrativo de Planeación Municipal, 2018, p. 260). Near Santa Elena market, informal businesses, makeshift huts, and drug use emerged, making the area unsafe (DAPM, 2020) as shown in fig. 11. Further south, San Judas became a notorious vacant area used by homeless individuals and drug users. Overall, for decades, the railway strip degraded into a “vice corridor”—full of garbage, crime, and irregular settlements (DAMP, 2020, p. 86, 176).

Paradoxically, the land remains national property, classified in the POT as a “protected railway transport reserve”. In 2009, one administration proposed building the Autopista Bicentenario, a tolled expressway along the corridor. However, this idea was discarded by the following administration, considering it not ideal for the city, in line with global urban planning trends favoring sustainability and public space over more urban highways (Departamento del Valle del Cauca, 2021, p. 137).

2010's onwards



Figure 12: Final Masterplan for the winning project of the Green Corridor “Entre los Cerros y el Río” (Source: Espacio Colectivo + OPUS).

The Plan Integral de Movilidad Urbana (PIMU) was developed to serve as the master planning instrument aligning the city’s mobility model with broader territorial development goals established in the **Plan de Ordenamiento**

Territorial (POT). Its central aim is to promote a model of sustainable mobility that transcends general concepts and establishes clear strategic actions.

The plan adopts a specific definition of sustainable mobility as that which:

“...satisfies the need that a society has of moving people and goods in an accessible, efficient, and safe way, to increase the capacity of adaptation to climate change” (Centro de Estudios Urbanos CEU - UNIMAYOR, 2016).

A fundamental principle of the PIMU is the reordering of the mobility hierarchy, granting explicit priority to non-motorized modes and public transportation systems over the use of private vehicles.

Following this sustainable mobility framework and rejecting the previously proposed highway along the railway corridor, the vision of a green corridor was conceived. The concept appeared in the 2012–2015 Development Plan and was progressively consolidated. In March 2015, the city formally announced an urban renewal project to reclaim the old railway as a linear park. This way, the Corredor Verde is envisioned as a flagship urban renewal project that leverages the city’s historical railway infrastructure as a catalyst for future development. As defined in Article 449 of the city’s POT, it is:

“...an integral urban project, that is positioned as the new development axis of the city, structured around a mass transit system of regional scope, accompanied by the urban renewal of the area of influence of the old railway corridor of Santiago de Cali.”

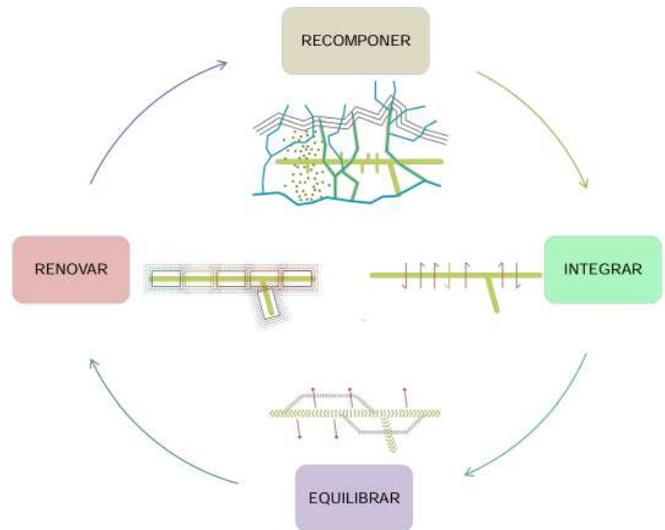


Figure 12: Four core strategic objectives (Sociedad Colombiana de Arquitectos, n.d.).

As reference in figure 12, the four core strategic objectives guide the Corredor Verde goes as follows:

1. **Ecological Recomposition (Recomponer):** Reconnect the ecological network from the hills (cerros) to the Cauca River
2. **Social and Spatial Integration (Integrar):** Integrate socially and spatially divided areas of the city
3. **Sustainable Mobility (Equipar):** Implement clean, mass-transit systems and prioritize pedestrians and cyclists
4. **Catalytic Urban Renewal (Renovar):** Trigger urban renewal through strategic projects in the central corridor strip

Stretching approximately **22 kilometers from north to south**, the Corredor Verde aims to reconnect green areas, improve public space, and integrate systems of non-motorized and clean mass transport, conceived as a linear park combining ecological, cultural, and mobility components to raise the quality of life of the metropolitan area. The project received international backing from its inception. In 2016, the French Development Agency (AFD) and the French Embassy signed a 1.15 million euro technical cooperation agreement to support studies and project formulation.

The preliminary urban, landscape, and architectural vision for the project was established through a public design competition in 2016. **The winner was the Unión Temporal Espacio Colectivo OPUS Consortium, with their proposal titled “Entre los Cerros y el Río” (Between the Hills and the River).** This winning design served as the foundation for the preliminary framework, conceptualizing the corridor as a central linear park. Key features included ecological corridors, bikeways, tram stations, cultural and sports facilities, and high-quality public spaces. The proposal was innovative, incorporating green infrastructure

concepts such as native tree planting, rain gardens, and water channel recovery (Sociedad Colombiana de Arquitectos, n.d.).

However, the original design concept was later adapted into a zoned masterplan to accommodate the planned implementation of the Tren de Cercanías del Valle (TCV)— a train-tram system that became the project’s axial infrastructure component. This adjustment was made despite the TCV not having been fully evaluated at the time of the design competition, representing a significant evolution in the project’s technical and strategic scope.

3_2. Tren de Cercanías del Valle

The Infrastructure

The Tren de Cercanías del Valle del Cauca (TCV) is a planned electric light-rail system designed to connect Cali with the neighboring municipalities of Yumbo, Palmira, and Jamundí as the central infrastructure backbone of the Corredor Verde sustainable mobility strategy (Ventanilla Única de Inversión (VUI). n.d.; SYSTRA, 2020).

The project reactivates rail transport along historical alignments, specifically the Calle 25 corridor within Cali, marking the first return of passenger rail to the region since the 1989 closure of the national railway (Gobernación del Valle del Cauca, n.d. -Story Map). The TCV is engineered as a tram-train hybrid, **capable of reaching average speeds of 51 km/h in inter-urban sections and 26 km/h in urban areas** (Mintransporte, 2024).

Line 1 (Cali–Jamundí) covers approximately 23.14 to 23.4 kilometers with 21

stations, and it is projected to serve 165,000 daily passengers by 2032, with a total system investment estimated between USD 2.7 and 3.0 billion (Mintransporte, 2024; VIU, n.d.).

Technical feasibility studies for the tramo priorizado were **completed in December 2023** (Ramirez, 2023), and the project successfully **obtained all necessary technical, fiscal, and legal endorsements by September 2024.**

However, the 70% national government co-financing was not secured as projected by November 2025 (Mazo, 2025; SITREN, 2025 -Interviews-), creating a state of uncertainty that has forced regional leaders to seek alternative funding sources, such as international management and private alliances, while re-evaluating implementation timelines.

The system is designed for full integration with the SITM-MIO bus network to create a uni-

fied metropolitan transit network. A critical technical consideration for the project remains the management of the **potential coexistence of passenger rail with freight operations** on shared segments of the corridor.

Table 1:

Technical and operational specifications of the Valle del Cauca commuter rail (TCV)

Specification	Characteristics	Description
Technology	Tramway / Light Rail Transit	The system is officially defined as a tram-train hybrid utilizing low-floor vehicles (Ramirez, 2023). This technology allows the train to function as a high-speed inter-urban vehicle and a street-level tram within urban Cali (SYSTRA, 2020).
Total Length	72 kilometers across two lines	The master plan specifies a long-term network of 72 to 73.4 kilometers. This includes the North-South line (Yumbo-Cali-Jamundí) and the East-West line (Palmira-Cali Centro) (Ramirez, 2023).
Track Gauge	Standard gauge, two-track platform	Advanced technical studies recommend a standard gauge of 1,435 mm to follow international standards and optimize material rodante (rolling stock) costs. The corridor is designed for a two-track platform throughout most of its urban segments (Departamento del Valle del Cauca, 2021; SYSTRA, 2020).
Traction System	Electric, Catenary at 1,500 Vcc	To meet sustainability and zero-emission goals, the TCV uses an electric traction system powered by a catenary-based system at 1,500 Vcc (Departamento del Valle del Cauca, 2021).
Investment	CAPEX	The total system investment is estimated at approximately USD 2.7–3.0 billion (COP 12 trillion). Phase 1, the prioritized tramo between Cali and Jamundí, is estimated at approximately COP 1.9 trillion (USD 554 million) for initial infrastructure (Departamento del Valle del Cauca, 2021; SYSTRA, 2020, p. 50).
Projection	2033	By 2032, the complete system is projected to handle 295,000 daily passengers, with Line 1 (Cali–Jamundí) accounting for 165,000 daily passengers. “Additional year added because of the lack of founding in November 8th of 2025” (Mazo, 2025 - Interview)
Line 1 specifications	This prioritized segment spans 23.14 to 23.4 kilometers, features 21 stations, and is expected to move 51.8 million passengers per year.	
Operation	The system will utilize an eccentric loop operation. This allows for high-frequency service (intervals of 6–7 minutes) in the dense central corridor of Cali, while optimizing frequencies for the peripheral inter-urban sections.	

Note. The table synthesizes key characteristics of the TCV system—technology, network length, track gauge, traction system, investment costs, demand projections, line-1 details, and operating pattern—based on advanced studies and recent interviews. Data adapted from Departamento del Valle del Cauca (2021), Ramirez (2023), SYSTRA (2020), and Mazo (2025, interview).

Following the structure proposed by Espacio Colectivo + OPUS, the main idea was to take advantage of the stations and important zones of the TCV to make cataclistic projects (Sociedad Colombiana de Arquitectos, n.d.).

The primary opportunity area for the implementation of TCV Line 1 is the **Phase II of the Corredor Verde is the 1.2-kilometre segment of Calle 25 located between Carreras 29 and 42 within Comunas 10 and 11**, (SITREN, 2024). This segment follows the historic alignment of the **Pacific Railway**, which is currently occupied by **informal settlements, workshops, and various commercial activities**, (DAPM, 2020, p. 86; Zapata, 2025b).

Legally, this corridor remains national property and is officially designated as a “**protected railway transport reserve**” within the city’s Plan de Ordenamiento Territorial (POT). Geographically, the terrain is characterized by a flat urban profile with a **right-of-way width of 20–25 metres**.

The design for the Tren de Cercanías del Valle (TCV) integrates three critical intermodal stations along this specific segment to ensure metropolitan connectivity, as well as, street-level tram insertion strategy, which is designed to provide seamless integration between the rail line, pedestrian networks, vehicular traffic, and surrounding public spaces (Ramirez, 2023; Cifuentes, et. al., 2020).

Institutional Structure

The TCV project operates within a **multi-level governance structure coordinating regional, municipal, and national actors** (UT Corredor Verde, 2018; Universidad Nacional de Colombia, 2018).

- **The Autoridad Regional de Transporte (ART)**, formalized in 2023–2024 as the Área Metropolitana del Suroccidente (AMSO), functions as the regional planning authority with participation from Cali and Valle del Cauca (48% each), Palmira (9.5%), Yumbo (8.9%), and Jamundí (3.8%) (Municipio de Santiago de Cali, 2018).
- **Day-to-day operations are managed by the Ente Gestor Regional (EGR)**, established as SITREN GV S.A.S., a public company with authorized capital of COP 2.098 billion (UT Corredor Verde, 2018). Metro-Cali, the existing municipal transit operator, is proposed to evolve into the regional EGR, expanding from municipal to metropolitan operations (Municipio de Santiago de Cali, 2018).

At the **national level**, the **Ministry of Transport has designated the TCV** as a strategic project, with technical and financial structuring support from the **Financiera de Desarrollo Nacional (FDN) and FONDES**, which committed COP 29.3 billion for feasibility studies (El Tiempo, 2025). The **Agencia Nacional de Infraestructura (ANI)** coordinates railway right-of-way resolution (UT Corredor Verde, 2018).

International partners include the **French Development Agency (AFD)**, which signed a €1.15 million technical cooperation agreement in 2016, alongside the **World Bank and British Embassy** providing advisory support (OPUS Espacio Colectivo, 2016; Municipio de Santiago de Cali, 2018).

Regional entities include the Gobernación del Valle del Cauca, municipal governments

(Alcaldías of Cali, Palmira, Yumbo, and Jamundí), EDRU (managing urban renewal), and MetroCali (coordinating transit integration) (Universidad Nacional de Colombia, 2018).

Integrated Mobility

The project integrates multiple transport modes within a unified metropolitan system (Laboratorio de Movilidad, 2018–2020). The existing **SITM-MIO (bus rapid transit) and complementary feeder services (STC)** will connect with the planned TCV light rail and a future fluvial transport system along the Cauca River (Municipio de Santiago de Cali, 2018).

Non-motorized transport receives absolute priority through universal accessibility standards, dedicated cycling networks (ciclorrutas), secure parking facilities, and public bicycle services (Municipio de Santiago de Cali, 2018).

With that in mind, the Corredor Verde is structured in zones: **Zone 8** (Carrera 8, completed 2016–2018) delivered 5 kilometres of bikeways and green areas serving Comunas 7–8; **Zone 4** (Calle 25, Carreras 29–39) is the current focus area under detailed design and PEMP implementation; and **Zones 1–3 and 5–7** remain in planning stages for northern and southern extensions (OPUS Espacio Colectivo, 2016; UT Corredor Verde, 2018).

Moreover, **planning and monitoring employ data-driven methods**, including **Metronamica cellular-automata transport modelling** to simulate land-use and infrastructure interactions, and the **Observatorio MOVIS**, which tracks mode share, travel times, and user satisfaction (Laboratorio de Movilidad, 2018–2020). Data collection encompasses ca-

dastral surveys, property valuations, standardized geographic catalogues (NTC 5661), and origin-destination travel surveys (UT Corredor Verde, 2018, 2024).

Financial Structuring

Financing employs a blended model combining **public budgets, value capture mechanisms, public-private partnerships, and international development finance** (Universidad Nacional de Colombia, 2018).

Colombia’s Territorial Development Law (Ley 388 of 1997) provides instruments including **Contribución de Valorización** (betterment levies), **Participación en Plusvalía** (value capture from land-use changes), **Asociaciones Público-Privadas** (PPPs under Law 1508 of 2012), **Vigencias Futuras** (multi-year budget commitments), and **international credit** (Ley 388 de 1997; Ley 1508 de 2012; UT Corredor Verde, 2024).

The total Phase 1 budget is estimated at COP 12 trillion (USD 2.7–3.0 billion), initially projected with 70% national and 30% regional/local contributions; however, the November 2025 co-financing agreement was not secured as anticipated, necessitating the identification of alternative funding sources (El Tiempo, 2025).

The Santa Elena PEMP component is budgeted at COP 100–200 billion for Phase 1–2 interventions (UT Corredor Verde, 2024–2025). **Planning instruments include Planes Parciales** (detailed area plans), **Unidades de Actuación Urbanística** (joint property development), and **land acquisition tools** such as Anuncio de Proyecto (formal valuation notice), Expropiación Administrativa Ordinaria (stan-

dard 4–6 month expropriation), and Condición de Urgencia (expedited 30–60 day process for urgent projects) (Ley 388 de 1997; Universidad Nacional de Colombia, 2018).

Goals and Values

Community engagement has been structured through multiple participatory mechanisms since 2018 (UT Corredor Verde, 2024–2025). Public consultations in all four municipalities (2018–2019) gathered feedback on alignments and station locations, while socioeconomic surveys (2022–2023) mapped households, informal vendors, community facilities, and flooding hazards (UT Corredor Verde, 2018, 2024). Citizen oversight committees (Veedurías Ciudadanas) were established, and social ambassadors (gestores sociales) conducted door-to-door outreach and regular town-hall meetings (UT Corredor Verde, 2024–2025).



Figure 13: Example of one of the working groups (Source: Departamento Administrativo de Planeación Municipal de Santiago de Cali & Alcaldía de Santiago de Cali, 2025)

For the Santa Elena market, working groups (mesas de trabajo) with vendors, residents, and technical experts co-designed relocation and modernization solutions through six diagnostic workshops (March–April 2024) see fig. 13, **formulation sessions** (July–August 2024), and **results presentations** (October 2024), **engaging approximately 2,204 participants (54% women, 46% men)** representing neighbourhood associations, merchants, and NGOs (UT Corredor Verde, 2024–2025; Departamento Administrativo de Planeación Municipal de Santiago de Cali & Alcaldía de Santiago de Cali, 2025).

A formal Citizen Oversight Committee was established in November 2024 (UT Corredor Verde, 2024–2025). **National accessibility mandates require that all transport infrastructure be usable by individuals with physical, sensory, and cognitive disabilities**, with station designs incorporating level boarding, tactile guidance, accessible restrooms, ramp access (slopes $\leq 5\%$), and audio-visual signaling (Municipio de Santiago de Cali, 2018). The project is estimated to generate 14,000 jobs, with targeted workforce development programmes prioritizing local labour and women inclusivity (UT Corredor Verde, 2018; Liberos, 2024).

From an Environmental Point of View is projected to benefit from the 100% electric system, including **elimination of 35,000–40,000 tonnes of CO₂** annually and avoidance of 313,000 tonnes over the first decade (Municipio de Santiago de Cali, 2018; UT Corredor Verde, 2024). Green infrastructure targets 40–50% canopy coverage within 10 years through native tree planting, with **ecological restoration aiming for 30–50% increases in bird species richness** (OPUS Espacio Colectivo, 2016; UT

Corredor Verde, 2024).

Hydrological management integrates canal restoration (Canal CVC, Caaveralejo, Pasoancho) with **bioswales, rain gardens, and permeable surfaces** designed to reduce peak runoff by 35–40% during 85th-percentile storm events (50 mm rainfall) (UT Corredor Verde, 2024).

Lastly, **Construction-phase mitigation** strategies address noise and vibration (daytime work restrictions, noise barriers), air pollution (dust suppression, equipment maintenance), traffic disruptions (phased construction, designated truck routes, off-peak scheduling), and utility relocations (18–24 month coordinated sequencing) (UT Corredor Verde, 2024). **Long-term mobility benefits include a 33% average reduction in travel times and estimated travel-time savings of COP 1.681 trillion during the operational phase** (Laboratorio de Movilidad, 2018–2020; UT Corredor Verde, 2018).

UA within

The urban acupuncture strategy proposes small-scale, catalytic interventions along the Calle 25 segment (Carreras 29–42) to complement large-scale TCV infrastructure, drawing on principles articulated by Solà-Morales (1992), Lerner (2014), and recent scholarship on tactical urban interventions (Hemingway &

De Castro Mazarro, 2022; Khaing et al., 2024). According to OPUS + Espacio Colectivo (2016) & UT Corredor Verde (2024) the proposed interventions include:

Micro-wetland pockets and bioswales for stormwater management, green fingers extending into neighbourhoods, pocket parks and plazas at key nodes, canopy infill with native shade trees, permeable trail and sidewalk upgrades, art and cultural integration, enhanced crossings with lighting and vertical gardens, modular or mobile green units for testing site suitability, edge buffers separating the tramway from adjacent uses, interactive environmental sensors for microclimate monitoring, and transit stop greening.

Implementation employs diagnostic mapping to identify flooding hotspots, dangerous intersections, and heat islands; a priority matrix scoring interventions by impact and feasibility for phased rollout (Phase 1: top five interventions; Phase 2: next ten within three years); **stakeholder alignment through corridor working groups**; and continuous monitoring tracking temperature reduction, pedestrian/cyclist activity, biodiversity, flood mitigation, and community events, **with adaptive management protocols adjusting interventions based on user feedback** (Lynch, 1975; Rauws, 2017; UT Corredor Verde, 2024).

Figure 14: Urban project management and the segmentation of sections to identify ecological zones and zonal activities.

(Source: Espacio Colectivo + OPUS, 2015)



Selected Focal Zones

The **Galería Santa Elena** represents the strategic focal point for catalytic intervention. The 60-year-old market complex faces significant operational challenges: **inadequate loading zones causing traffic congestion, poor drainage, obsolete utilities, and insecure conditions for over 400 informal vendors.**

To address these issues, the municipality adopted a **Plan Especial de Manejo y Protección (PEMP, 2024–2036)** structured around *heritage protection, socio-economic revitalization, physical-spatial transformation, and administrative sustainability*. The PEMP incorporates participatory processes; approximately 2,204 residents participated across diagnostic workshops (March–April 2024), formulation sessions, and results presentations, with a Cit-

izen Oversight Committee formally established in November 2024 to ensure transparency and monitor implementation.

The Mariano Ramos area (south-central Calle 25) functions as a second catalytic intervention node, designated as a Strategic Modal Interchange Area. This hub will integrate multiple transport modes (TCV, SITM-MIO, cycling, pedestrian) and **combine residential intensification, commercial services, and green infrastructure** through mixed-use development coordinated with TCV construction, with value capture mechanisms funding public improvements and affordable housing.

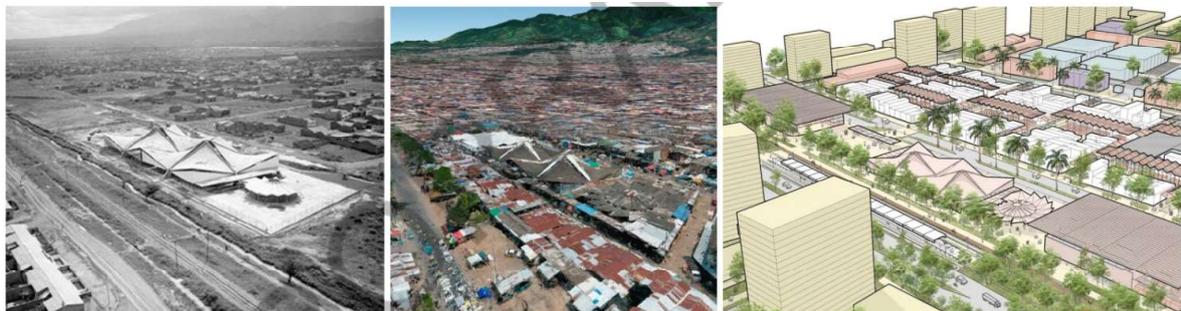


Figure 15: Past, present, and projected future (non-official) of the Galería Santa Elena market. (Source: Taken from Departamento Administrativo de Planeación Municipal de Santiago de Cali and Alcaldía de Santiago de Cali (2025).



Figure 16: Master plan of Mariano Ramos Intersection. (Source: Unión Temporal Espacio Colectivo + OPUS, 2016)

Site Definition

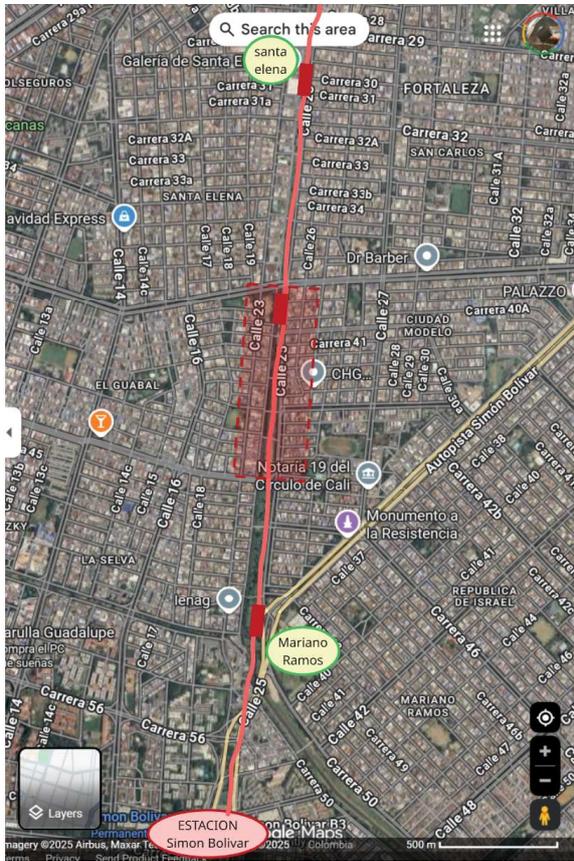


Figure 17: The selected area, within the focal Zones of Galería Santa Elena and Maria Ramos Sport center. (Source: Created by Author using imagery from Google-Maps, 2025)

The focus area is a critical segment of Cali’s Green Corridor, located along Calle 25 between Carreras 39 and 42. This site sits at a strategic urban crossroads, positioned directly between the Galería Santa Elena (the city’s primary food supply hub) and the Mariano Ramos Sports Unit.

Current Physical and Social Reality:

- **Infrastructure Decay:** The strip contains the original Pacific Railroad tracks, which have been abandoned for over 30 years and are now largely buried under asphalt or debris (Cifuentes, 2020; UT Corredor verde, 2025).
- **Illegal Occupation:** The land is technically national property but is currently characterized by informal settlements, scrapyards (chatarrerías), and automotive workshops (Zapata, 2025).
- **Environmental & Security Concerns:** Participants identified the site as a “vice corridor” suffering from micro-trafficking, waste accumulation, and high insecurity, making it a physical and social barrier between the eastern and western parts of the city (Zapata, 2025).
- **Zoning Tension:** While the area is predominantly residential, it faces heavy pressure from the expansion of Galería Santa Elena’s logistic and storage needs (Alcaldía de Santiago de Cali, 2017).
- **Connectivity Hub:** The site is intended to link with the Simón Bolívar MIO Terminal, serving as a multi-modal transport node for the metropolitan area (Unión Temporal Espacio Colectivo + OPUS, 2016).

4. METHODOLOGY

This research employs a **Problem Structuring Methodology (PSM)** orientation, using the **Strategic Choice Approach (SCA)** as the central decision-support framework. The selection of SCA responds to the high uncertainty, multi-actor negotiation, and value pluralism characteristic of urban planning—conditions that intensify when small-scale, catalytic interventions associated with **Urban Acupuncture (UA)** are considered (Rittel & Webber, 1973; Lerner, 2014).

Within the family of PSMs, SCA offers a structured process for framing problems, exploring alternatives, and formulating commitments under incomplete information and divergent objectives (Friend & Hickling, 2005; Mingers & Rosenhead, 2004). Recent contributions by Lami and Todella (2019) further enhance SCA's applicability by expanding its classical uncertainty typology—**Working Environment (UE), Related Decisions (UR), and Values (UV)**—to include **Uncertainty about Disruptive Events (UD)**, which captures the shocks and disruptions increasingly relevant to contemporary urban systems. This expanded uncertainty framework supports the analytical lens adopted in the study (Lami & Todella, 2019, 2023).

The empirical strategy follows a quasi-experimental design documented in previous applications of SCA in educational and participatory planning contexts (Friend & Hickling, 2005; Lami & Tavella, 2019; Franco & Rouwette, 2022). Rather than applying the methodology in a real-world experiment with actual stakeholders, this study employs a **quasi-experimental research design** using a **comparative workshop structure** in which homogeneous groups of architecture students work independently on the same urban case study (the Calle 25 Green Corridor). As Lami and Tavella (2019) argue, such student-based workshops offer a controlled setting for comparing specific methods (such as SCA) across groups facing an identical task.

This approach is not as authentic as an exercise conducted with professional practitioners, nor is it as tightly controlled as a laboratory experiment; however, it manages the trade-off between realism and control in a way that supports the validity of the results. Within this setting, it is possible to observe systematically how decision-making micro-processes —**specifically, the framing of decision areas, the classification of uncertainties (UE, UR, UV, UD), and the construction of commitment pack-**

ages— evolve when the catalytic logic of Urban Acupuncture (UA) is explicitly integrated as an operational counterpart to SCA (Friend & Hickling, 2005; Lami & Todella, 2019; Lami & Tavella, 2019).

Although true random assignment is rarely feasible in planning contexts, comparable student groups enable relatively objective comparison of how different methodological framings perform under equivalent constraints, following precedents in PSM evaluation research (Franco & Rouwette, 2022).

Within this framework, SCA provides the diagnostic and structuring logic, while UA contributes a complementary design logic emphasizing small-scale, catalytic interventions at strategic pressure points, allowing the study to test whether explicit UA framing influences the types and scales of options generated, the recognition of uncertainty types (particularly UD and UV), and the spatial-temporal logic of commitment packages (Lerner, 2014; Lami & Todella, 2019).

The research was conducted in collaboration with two universities in Cali, Colombia: a **preliminary pilot workshop at Pontificia Uni-**

versidad Javeriana (PUJ) in October 2025, and a **formal comparative study at Universidad San Buenaventura (USB)** in November 2025. At USB, two student groups (Group A and Group B) worked independently on the Calle 25 Green Corridor case using SCA's four modes (Shaping, Designing, Comparing, Choosing), **with Group B receiving explicit training in UA concepts and principles to test whether this framing influenced option generation, uncertainty identification, and intervention logic.**

This methodological structure enables investigation of three core questions: how SCA supports collaborative decision-making under uncertainty in contested urban contexts; whether and how UA principles shift the content, scale, and logic of proposed interventions; and where systematic integration of the two frameworks is feasible and productive. Subsequent sections detail workshop procedures, data collection methods, and analytical protocols.

4_1. Research Design Overview

Table 2:
Overview of the research design, phases, and data collection

Phase		Components	Data Collection	Outputs	Analysis	Time-line
1	Theoretical Framework	Literature	Documentary review, bibliographic synthesis	Framework document, research positioning	Thematic synthesis	May-Aug 2025
2	Case Study Investigation	Stakeholders (ART, Planning, SITREN, Espacio Colectivo) (See Appendix a-c and Interview Protocol (4_2a))	<ul style="list-style-type: none"> Preparation of the interviews; Interview outcomes, notes, and recordings; Municipal documents, site visits 	Case context report, uncertainty mapping	Narrative analysis	Aug-Sept 2025
3	Preparation	<p>Profs. Bustos & Marín</p> <p>See section 4_2.b. Uncertainty-map and Oportunity Lot Brief</p> <p>See Appendix e & f: for Survey 1 & 2 instruments</p> <p>See section 4_3: for SCA Workshop Protocol (Spanish) and corrections for USB</p>	<p>Adaptation of English SCA materials (Friend & Hickling, 2005) into Spanish for the Colombian context;</p> <p>Workshop protocol piloting and refinement with Profs. Bustos and Marín;</p> <p>Preparation of contextual materials: Green Corridor maps, stakeholder profiles, uncertainty scenarios.</p>	Spanish workshop guides, presentations, and teaching materials	Protocol documentation	Sept-Oct 2025
4	Preliminary Tryout (PUJ)	5–9 architecture students (6th–7th semester, course “Ciudad, Región y Territorio”)	Workshop observations, student sketches/notes, audio recordings (with permission), SCA worksheets	Preliminary workshop report, lessons learned	Content analysis, field notes	Sept. 26 - Nov. 13 2025
		Note: During Comparing and Choosing mode, ChatGPT (an AI tool) was used to generate impact assessments, the Relative Options, and the Areas of Uncertainty. This hybrid approach follows Lami & Todella (2023) and was decided for its practicality and easy response for the quick management of information and responses.				

Phase	Components	Data Collection	Outputs	Analysis	Time-line	
5	Formal Workshops (USB)	Group A (SCA non-UA) Monday: 10 students (5th semester of architecture: “Urbanism I”)	Workshop observations, student schemes, Survey 1 & 2, and recordings.	Schemes, survey data, workshop reports	(UE/UR/UV/UD); survey thematic coding	Oct. 06 - Nov. 29 2025
		Group B (SCA+UA) Wednesday: 9 students (Same course)	Same as above + Emphasis on Urban Acupuncture Principles (uncertainty types, UA principles)			
Note: During Comparing mode, both Group A and B used NotebookLM (AI tool) to generate impact assessments of options. This hybrid approach follows Lami & Todella (2023) and was applied equally to both groups to maintain comparison validity.						
6	Stakeholder Interview & Triangulation	Student Deliveries + External Professionals (ART, Espacio Colectivo architects)	Semi-structured interviews, scheme presentation, and feedback. Comparative analysis of student work by stakeholder input	Interview transcripts/ notes, feedback summary Revised decision framework, viability matrix	Feasibility / Relevance assessment Multi-source comparison	Dec 2025
7	Synthesis and Conclusions		Document synthesis	Contributions, limitations and Conclusions.	Integrative synthesis	Dec 2025 - Jan. 2026

Note. The table synthesizes the seven phases of the study—from theoretical framing and case-study investigation to preparation, preliminary try-out, formal workshops, stakeholder triangulation, and synthesis—together with their components, data collection methods, main outputs, analytical approaches, and timelines.

4_2. Case Study Investigation

Prior to conducting the participatory workshops with architecture students, exploratory semi-structured interviews were conducted with key stakeholders involved in the Green Corridor and Tren de Cercanías del Valle del Cauca (TCV) planning process. These interviews served four primary purposes:

1. **Contextual Understanding:** To map the project’s history, institutional structure, and current status, identifying key actors, decision points, and policy frameworks that would inform workshop scenarios.
2. **Preliminary Uncertainty Identification:** To identify emergent uncertainties (UE, UR, UV, UD) from the perspectives of professional planners, designers, and institutional representatives before introducing the SCA framework to students.
3. **Stakeholder Mapping:** To understand the relational dynamics between institutions (SITREN, Planning Department, EDRU, CVC), design consultants (Espacio Colectivo), and community actors.
4. **Material Preparation for Workshops:** To gather contextual information (institutional constraints, community concerns, technical challenges) that would ground workshop exercises in real planning complexities.

These preliminary interviews established a baseline understanding of the project’s uncertainties and institutional landscape, which later informed the design of workshop case scenarios and the evaluation of student-generated proposals.

Table 3: Overview of key interviewees and their contribution to the research:

Interviewee	Role/ Afiliation	Reference to Research	Apendix	Date
Aldo (Espacio Colectivo)	Winner of the Green Corridor (2016) and Santa Elena (2025) design competition.	Provides design vision, historical context of competition process.	A	Sep 15, 2025
Diana Mazo (ART)	Agencia de Renovación del Territorio (ART), territorial renovation authority	Offers an institutional perspective on territorial renewal strategies, relocation policies, and coordination between municipal and regional authorities	B	Oct 3, 2025
SITREN + C. Sandoval + Architect + Engeenier	SITREN (transport authority), Municipal Planning Department	Captures multi-actor negotiation dynamics, revealing conflicts over relocation, land use, informal commerce, and community displacement	C	Nov 28, 2025

Interview Protocol

These preliminary interviews follows a responsive, presentation-based format, rather than a rigid question sequence, allowing stakeholders to lead the conversation through their own narratives and presentations. Follow-up questions are then introduced to further clarify issues related to SCA, uncertainty, or UA, or to address any of these aspects that were not discussed during the meeting.

In this manner, before each interview, thematic questions were prepared and organized around the SCA uncertainty typology and decision-making dynamics. These questions were derived from the language and framing found in PSM and SCA literature (Friend & Hickling, 2005; Lami & Todella, 2019; Lami & Tavella, 2019; Franco, 2013) and subsequently refined using NotebookLM AI. This process expanded the alignment of the questions with the original sources, thereby ensuring conceptual consistency while maintaining conversational flexibility.

Project's Context and History:

- Can you describe the current status of the Green Corridor / TCV project?
- How did this project evolve from initial conception to where it stands today?
- What institutional actors are involved, and what are their respective roles and responsibilities?

Uncertainty about the Working Environment (UE):

- Are there areas where you feel you lack sufficient data or information to make confident planning decisions?
- What technical studies or investigations are still needed?
- How do you handle situations where envi-

ronmental impacts, user behavior, or infrastructure capacity are uncertain?

Uncertainty about Related Decisions (UR):

- How do decisions made by other actors (national government, regional authorities, neighboring municipalities) affect your planning process?
- Are there key decisions outside your control that could significantly impact the project's feasibility or timeline?
- How do you coordinate with other institutions when your decisions are interdependent?

Uncertainty about Values (UV):

- Are there areas where stakeholders have different priorities or visions for the project?
- How do you balance competing objectives—for example, economic development versus community preservation, or environmental goals versus infrastructure efficiency?
- What trade-offs have been most difficult to negotiate?

Uncertainty about Disruptive Events (UD):

- Have there been unexpected events (political changes, funding cuts, community protests) that disrupted the planning process?
- How do you prepare for potential shocks—such as mayoral transitions, budget volatility, or climate emergencies?
- What contingency plans are in place for scenarios where key assumptions no longer hold?

These interviews would also have **follow-up probes** to classify challenges within the SCA uncertainty framework. For instance, if stakeholders cite reliance on national government decisions, they can be asked how this depen-

dency affects progress and whether independent actions are possible (UR). If they mention community resistance, questions should clarify whether it stems from conflicting values and priorities or from insufficient information (UV vs. UE). Each interview concludes with a reflective prompt—asking stakeholders to identify the most critical challenges or uncertainties ahead—allowing them to summarize concerns and highlight priorities.

Data Collection

The interviews are **audio-recorded and transcribed** by the Google Recorder app (producing .mp3 and .txt formats). This audio captures the core process: **A responsive, presentation-based, semi-structured format** where stakeholders are allowed to lead the conversation through their own narratives and presentations. Simultaneously, **handwritten field notes capture** key themes and contextual observations during the conversation.

The interviews were designed to probe strategically and **monitor the emergence of four uncertainty types (UE, UR, UV, UD)**. Notes captured the key themes and their relation to the planning complexity framework, while also **documenting contextual observations**.

Both notes and audio recordings were used in the initial analysis and stored in the NotebookLM source library to support student exercises with real-world data and stakeholder quotes. The notes did not replace the audio but complemented it, providing immediate insights and contextualizing the longer narratives contained in the recordings.

Procedure Before Workshops

- 1. AI-assisted transcription and synthesis:** Automatically generated transcripts from Google Recorder were uploaded to NotebookLM (Google’s AI research assistant tool) to create a project-specific knowledge base. NotebookLM was used to:
 - Generate thematic summaries of each interview, highlighting key themes related to project history, institutional challenges, and stakeholder concerns
 - Identify recurring topics across multiple interviews (e.g., coordination failures, funding dependencies, community resistance)
 - Extract relevant quotes and contextual details for workshop preparation
- 2. The Synthesis into structured reports:** Based on the AI-generated summaries and manual review of transcripts, interview synthesis reports were produced that organize stakeholder insights into:
 - Project context and history
 - Key institutional actors and their roles
 - Identified challenges and decision-making obstacles
 - Emerging themes related to uncertainty and planning complexity
- 3. Deductive mapping to SCA uncertainty typology:** The synthesized themes are organized into the SCA uncertainty framework (UE, UR, UV, UD), generating a preliminary uncertainty map.
 - “Lack of census data on informal commerce” - UE (Working Environment)

- “National co-financing decision pending” - UR (Related Decisions)
- “Conflict between community livelihoods and developer densification goals” - UV (Values)
- “Mayoral election transitions, potential funding cuts, Protests.” - UD (Disruptive Events)

4. Integration into workshop knowledge base: The interview audio files and transcripts are kept in the NotebookLM source library used during the USB workshops (Phase 5).

- To reference stakeholder perspectives and institutional context when facilitating workshop discussions.
- **During the Comparing and Choosing mode, students are able to inquire the NotebookLM knowledge base** for real-world data and stakeholder quotes to inform their option evaluations, instead of other ai that might bring not-related information to the discussion.
- Workshop examples and scenarios to be grounded in actual stakeholder language and concerns rather than hypothetical abstractions

5. Material synthesis for workshop scenarios: Key insights are filtered and summarized into contextual briefs, opportunity lot descriptions, and maps that were available after the interviews, to be presented to students during workshops. For example:

Opportunity Area: “Informal commerce (bodegas) concentrated along Carrera 39.

Relocation planned but contested. UE: Lack of economic impact study. UR: Dependent on EDRU relocation timeline. UV: Community prioritizes livelihoods; city prioritizes formal retail development.”

This dual use of interview data—both as a preparatory context for the thesis material and as a real-time AI-accessible knowledge source during workshops—ensures that student decision-making exercises are grounded in authentic planning realities within their own ideas, while maintaining methodological transparency about the role of AI tools in data synthesis.

The preliminary interviews produced several outputs that directly informed the workshop methodology.

A Case Context Report synthesized the Green Corridor project narrative, including institutional actors, policy frameworks, and key decision points, and was provided to participants as background reading.

A Preliminary Uncertainty Map classified identified uncertainties into the SCA typology (UE, UR, UV, UD), serving as a reference framework for evaluating student-generated analyses.

Opportunity Area Brief was developed for the study areas along Carrera 39–42, documenting geographic location, current land use, key actors and institutional responsibilities, identified uncertainties (categorized by UE, UR, UV, UD), and example decision areas such as relocation strategy, mixed-use density, and green infrastructure connectivity.

Role-Play Actor Profiles were created from stakeholder interviews, providing realistic char-

acterizations of the Mayor, Developer, Community, and Business Owner roles assigned to students, ensuring that role-play dynamics reflected real institutional tensions and competing priorities.

Finally, themes and concerns raised in preliminary interviews (e.g., “How do we balance re-

location with community economic survival?”) were documented for Phase 6 validation interviews, where stakeholders later assessed whether student proposals addressed these foundational uncertainties. All supporting materials are included in the thesis appendices.

4_2.b. Study Materials in MIRO

Table 4: Radial Uncertainty Map (Classification and Prioritization)

Category of Uncertainty	High Relevance (Inner Ring)	Medium Relevance (Middle Ring)	Low Relevance (Outer Ring)
Working Environment (UE)	Soil Stability: Susceptibility to liquefaction and lateral movement in the San Judas and Villa del Sur sectors (Comuna 11). (Intractable)	Contamination Levels: Precise remediation costs for environmental contamination in northern industrial segments. (Tractable)	Topographic Precision: Need for detail-level surveys for elevated or underground intersections. (Tractable)
Related Decisions (UR)	Freight Coexistence: Final decision on whether to share the corridor with freight rail, which could compromise passenger frequency and safety. (Intractable)	SITM-MIO Integration: Determining the exact nodes for multi-modal integration with the bus system to avoid redundant services. (Tractable)	Municipal Adhesion: Coordination with secondary municipalities (Dagua, La Cumbre) for future expansions of the regional network. (Tractable)
Guiding Values (UV)	National Co-financing: Lack of formal signature for the 70% national government contribution (COP 8.4 trillion), causing critical delays. (Intractable)	Gentrification vs. Inclusion: Establishing policies to prevent the displacement of existing residents while promoting redensification. (Intractable)	Priority Focus: Political direction on whether to prioritize the Centro Histórico branch over the southern extension. (Tractable)
Disruptive Events (UD)	Political Discontinuity: Risk of administrative changes in 2027/2028 causing the project to be abandoned or modified. (Intractable)	Social Instability: Potential for social unrest (like the 2021 “estallido social”) impacting regional fiscal health. (Intractable)	Climate Shocks: Rare but severe flooding events from the Cauca or Cali rivers affecting the at-grade tracks. (Intractable)

Uncertainty map made with NotebookLM with sources from TCV investigation and Friend & Hicling 2005.



Figure 18: Additional Data (figures) of the SCA process next to the presentation in the MIRO platform.

Source: Friend & Hicling (2005).

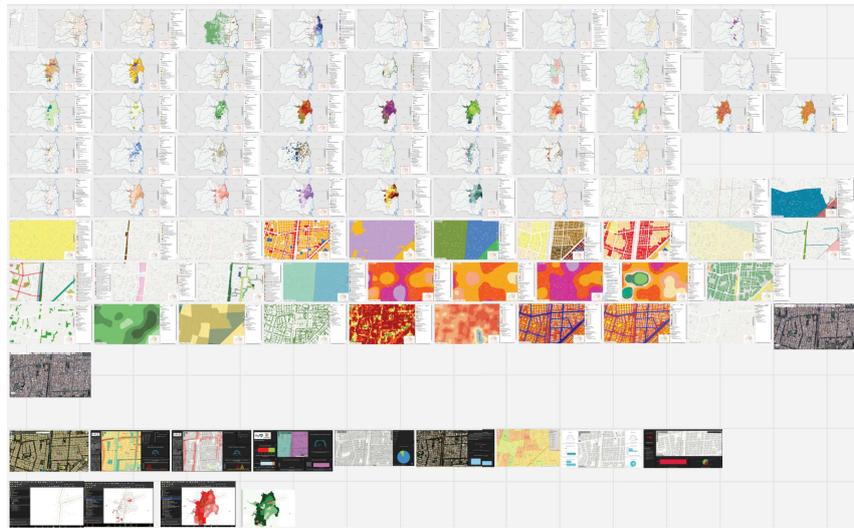


Figure 19: GIS layers compiled in IDESC Geovisualizer for Cali.

Source: Figure created by the author in Miro, summarizing the main municipal GIS layers used in the Green Corridor analysis (POT 2014 and associated thematic datasets on land use, mobility, environmental risks, social indicators, and public facilities), obtained from IDESC, ESRI visualizers and Catastro map opensource platforms from Departamento Administrativo de Planeación Municipal de Santiago de Cali.



Figure 20: Summary of the Green Corridor project.

Source: Figure created by the author, combining a synthesized summary of the research with images from "Así será la segunda fase del Corredor Verde de Cali, en Colombia" (ArchDaily, 2016). <https://www.archdaily.cl/cl/780028/asi-sera-la-segunda-fase-del-corredor-verde-de-cali-en-colombia>

4_3. Workshops Preparation and Protocol

Workshop materials are adapted from original sources (Friend & Hickling, 2005; Lami & Todella, 2019; Lami & Tavella, 2019;) into Spanish for a Colombian educational context. Working allong with **Prof. Jhon Freddy Bustos at Pontificia Universidad Javeriana - Class: Ciudad, Region y Territorio** and **Prof. Flor Inés Marín at Universidad San Buenaventura - Class: Urbanismo I**; the methodology was simplified into a didactic protocol that condensed the SCA application into 2–3 hour workshop sessions while maintaining methodological rigor and conceptual fidelity to the original framework.

The preparation process involved iterative refinement through consultations with both instructors, who provided feedback on pedagogical appropriateness, time feasibility, and alignment with their respective course objectives. This collaborative development ensured that workshop materials would be pedagogically accessible to architecture students with no prior exposure to operational research methods while remaining methodologically rigorous enough to test the research hypotheses.

Creating visual slide decks presentation of SCA concepts through metaphors, diagrams, and interactive exercises, drawing on Rittel & Webber (1978), Friend & Hickling (2005), Grunt (2005), and Lami & Todella (2019); Along side metaphorical language, icons, and illustrations to enhance comprehension, aligning with narrative theories to make complex ideas more accessible, thus, complementing the glossary of

SCA concepts (Decision Area, Decision Link, Decision Graph, Option, Scheme, Comparison Area, Uncertainty Area, Commitment Package) into Spanish translations.

Experimental Setting

This quasi-experimental session seeks to capture moments and tendencies in which the SCA methodology opens pathways toward Urban Acupuncture (UA) applications. **A first group (Pontificia Universidad Javeriana -PUJ-)** will serve as a hybrid test group, where the facilitator will mention UA to help identify more clearly where these opportunities naturally appear within the process.

Two workshop groups will apply the SCA framework in parallel (USB):

- One follows a standard SCA process,
- The other integrates a guided introduction to UA principles — emphasizing small-scale, context-sensitive interventions in parts where the UA content can be induced.

The comparative setup for this quasi-experimental research examines how the integration of UA within the SCA influences decision-making and uncertainty management, using the Green Corridor in Cali (between Carreras 39 and 42) as a case study. In this context, three groups address the same scenario but differ in methodology, following a common workshop program structured into three sessions for each group. The workshop program consists of three sessions for each group.

Session 1 introduces the main SCA concepts and metaphors, and ends with a homework task where students identifies actors, problems, decisions, and uncertainties in the Green Corridor case. **Session 2 focuses on Shaping and Designing:** students, working in groups, defines Decision Areas, shape Decision Graphs, and generates initial options and schemes. **Session 3 focuses on Comparing and Choosing:** students uses comparison areas, AI-supported estimations and uncertainty mapping to evaluate schemes and outline preliminary commitment packages.

Session 1 → Introductory concepts + homework.

Session 2 → Decision areas, decision graph, options, schemes.

Session 3 → Comparison areas, AI-supported evaluation, uncertainties, (partial) commitment packages.

In all workshops, the facilitator’s role as designer of the protocol, and the explanation of concepts, activities, and time management, is being taken by the thesis writer, while Prof. Bustos (PUJ) and Prof. Marín (USB) are intervening when they see fit to align the exercises with course objectives and to support group discussions. Students work first in plenary to understand each activity, then in small groups on Miro boards (and physical boards in USB)

to complete the templates, while AI tools (ChatGPT or NotebookLM) are being used only when explicitly prompted to support comparison-area and uncertainty-area estimations and to retrieve previously uploaded project data.

The PUJ group is following a hybrid SCA–UA process in which the facilitator is occasionally pointing out when an option can be interpreted as an Urban Acupuncture intervention. At **USB, group A** is following a standard SCA process without explicit UA references, whereas **group B** is receiving a brief UA introduction and specific reminders to search for small-scale, catalytic interventions at key moments of the SCA cycle.

Each session is following the same internal sequence: a 10–20 minute plenary explanation of the activity, 40–60 minutes of group work on the boards, and a final 10–20 minute plenary discussion where the facilitator is collecting the main decisions, uncertainties, and reflections from each group.

The following table, highlights the main distinctions between the pilot and the two formal workshops, including setting, timing, roles, and methodology, to clarify their division before the detailed protocols.

Table 5. Key differences between the pilot workshop and the two formal workshops:

	PUJ (Hybrid test Group)	USB (A) (standard SCA)	USB+UA (B) (Induced UA)
Setting	Pontificia Universidad Javeriana, Cali Thursdays (2-6 pm)	Universidad San Buenaventura, Cali. Mondays (1:30-3:30 pm)	Universidad San Buenaventura, Cali. Wednesdays (2:30-4:30 pm)
Professor and Class	Prof. John Freddy Bustos City, Region, and Territory	Prof. Flor Ines Marin Urbanism I	
Participant Profile	9 advanced architecture students (emphasis in Urbanism)	9 architecture students 5th semester	10 architecture students 5th semester

	PUJ (Hybrid test Group)	USB (A) (standard SCA)	USB+UA (B) (Induced UA)
Extension and # of sessions	7 hours (4)	6 hours (3)	6 hours (3)
Site/ Focus Area	Cali's Green Corridor, Carrera 39–42.		
Actors/ Role-Play	Undefined Participants chose and defined the stakeholders they wanted to act as.	Predefined Mayor Developer Community The group was subdivided.	Predefined Mayor Developer Community The group was subdivided.
Methodology	Hybrid SCA ; the facilitator mentions UA to identify natural alignment points.	Standard SCA process ; no specific emphasis on UA principles.	SCA with guided UA induction ; emphasizes small-scale, context-sensitive moves.
Workshop Goal	To pilot the SCA flow and refine the research protocol.	To compare with USB (SCA+UA)	To observe how UA principles influence option generation and prioritization.
UA Integration	Used to identify where UA opportunities naturally appear in the cycle.	None (Non-induced) ; functions as a baseline for standard decision-making. Previously, a lecture on Catalyst projects.	Induced ; UA logic is introduced early as a tactical expression of decisions. Previously, a lecture on Catalyst projects.
Examples provided	Pappers examples (Friend & Hickling 2005 and Lami & Todella 2019)	Pappers examples (Friend & Hickling 2005 and Lami & Todella 2019) + on-site/stakeholder based examples	
Core Tools	Miro platform ChatGPT for estimating comparison area ranges and Audio recordings	Miro platform NotebookLM for processing project data and estimating comparison area ranges, Pen and paper, Physical Boards, and Audio recordings	
Data Capture Methods	Recordings (audio and transcription) <ul style="list-style-type: none"> • During sessions • Participantns comments • Prof. Bustos Suggestions and Considerations MIRO screenshots Reshaped and altered the base presentation by participants.	Recordings (audio and transcription) <ul style="list-style-type: none"> • During sessions • Participantns comments • Prof. Marin Suggestions and Considerations MIRO screenshots Reshaped and altered the base presentation by participants Pictures of physical notes and exercises	
Deliveries	Per group: Report for commune Individual: Surveys 1 and 2	One per Stakeholder: Decision Sheet: Single slide summarizing actor, chosen scheme, key options, and central argument for best solution. Schematic Design: Single conceptual plan/diagram visualizing the scheme's zoning Video Pitch: Persuasive one-minute video demonstrating how the proposal meets the actor's success criteria. Individual: Surveys 1 and 2	

1st Session. Contextual Brief -1h

The first session was designed to introduce participants to the principles of SCA and **to explore, through examples and group discussion, how uncertainty, pressures, and problem types influence decision-making in planning.**

The session aimed to familiarize participants with the fundamental concepts of SCA—namely pressures, balances, problem types, and uncertainties—while encouraging reflection on their own approaches to decision-making. This provided the foundation for applying the methodology in subsequent sessions.

To achieve these objectives, the session presented the core concepts of SCA through visual

tools and metaphors to facilitate comprehension. Participants were invited to reflect on different types of uncertainties and problem situations encountered in daily life, with particular emphasis on urban planning and Urban Acupuncture (UA) interventions. Interactive exercises were incorporated to encourage reinterpretation of theoretical diagrams, thereby fostering active engagement with the material.

Finally, preliminary connections were established between SCA and UA as complementary frameworks for urban intervention, highlighting the potential of combining decision-making theory with small-scale, catalytic urban practices.

And the only difference was the final 4 slides for the SCA+UA group where the UA concepts are briefly explained.

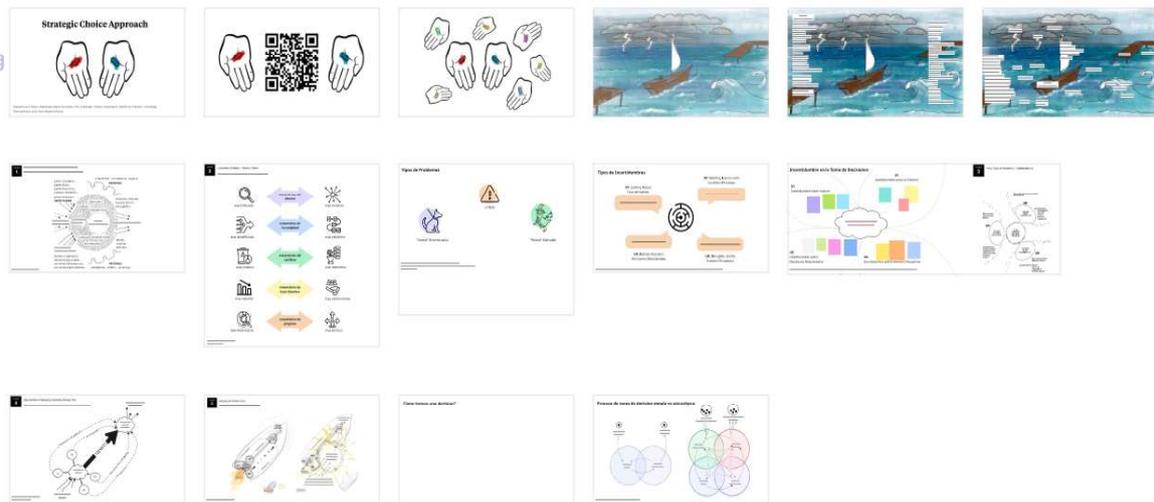


Figure 21: Slides used for the introductory session in Miro.

Source: Created by the author, summarizing key concepts of the Strategic Choice Approach (SCA), types of problems, balances of scope, and uncertainty classifications, based on Friend and Hickling (2005) and Lami and Tavella (2019).



Figure 22: Additional Slides for the Urban Acupuncture (USB+UA) introductory session in Miro.

Source: Created by the author, integrating and adapting ideas from Lerner’s urban acupuncture proposals together with secondary sources (ArchDaily articles on urban acupuncture and Spanish-language Wikipedia entries on “acupuntura urbana”) to support the USB+UA workshop framing.

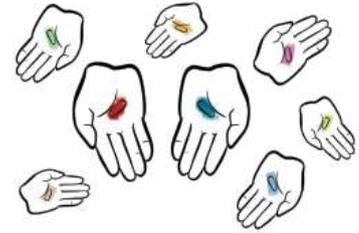
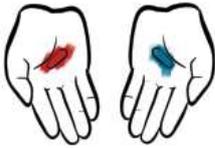
Table 6.

Workshop Session 01 Plan: Introducing Strategic Decision-Making Under Pressure and complementary concepts.

Slides Activity Duration	Description and steps	Key Question/Interaction
1–3. Introduction to decision making 10 min	Introduction to binary vs. multiple-choice decisions; emphasis that planning decisions rarely have single “correct” answers 1. Metaphor of the red/blue pill as the typical 2 choice pills. Focus on the idea that both options are strong and viable, and neither is inherently correct or incorrect. 2. Time to connect the MIRO platform. 3. Elaborate on the idea that many decisions involve multiple options, often leading to a branching series of choices.	Decision-Making Insights <ul style="list-style-type: none"> • What have been the most challenging decisions you’ve faced? • Can you describe the options you considered for those difficult decisions and the rationale behind your final choice? Project Decision Factors <ul style="list-style-type: none"> • <i>When making project decisions, which holds greater weight: intuition, technical data, or team consensus?</i> • <i>Who possesses the ultimate authority in the decision-making process?</i>
4–6. Ship in storm: Planning under pressure 15 min	Mapping the Decision-Making Journey into a Turbulent Sea Journey 1. Initial Impression & Free Association (Individual): Display the clean illustration. Ask participants to make notes on the image, labeling any part of it with a concept they associate with decision-making under pressure. 2. Guided Concept Placement & Rationale (Group/Discussion): Show the same illustration, but now include the text concepts from Figure 1 (Friend & Hickling, 2005, pp. 2). Instruction: organize these concepts where they believe they fit best, and then discuss the reasons for their placement choices. 3. Reveal and Discussion (Facilitator-Led): Present the final Figure 1, which already includes the intended placement of the previously discussed concepts. Facilitate a discussion comparing the participants’ placements with the standard model.	<i>Activity: Interactive session where students use sticky notes to map decision elements (pressures, uncertainties, progress) onto parts of a metaphor.</i> <i>Metaphor: Decision-Making as a Voyage</i> <i>Strategic decision-making is represented as a Ship traveling from an Initial Port (preparation/planning) across the turbulent Sea of Today’s Realities (current environment) to a Final Port (Progress/successful conclusion). The Boat represents the act of deciding, challenged by Incoming Storm and Big Waves (pressures, threats, and uncertainties).</i>
7. Strategic Judgments (the 5 balances) 3 min	Balancing Extremes The core of strategic decision-making involves navigating and balancing inherent trade-offs across five critical dimensions: Scope: Balancing the breadth and focus of the strategy. Complexity: Managing the intricacy of the situation versus the need for simplicity. Conflict: Weighing competing interests and goals. Uncertainty: Deciding how to act under conditions of ambiguity and risk. Progress: Balancing short-term gains against long-term objectives. Focusing on the principle that effective strategic choice is the act of harmonizing these opposing forces.	<ul style="list-style-type: none"> • <i>Which of these balances is the hardest to achieve in your specific context?</i> • <i>What has been the most difficult balance to strike when making a decision?</i> • <i>What other kinds of balances might exist in decision-making?</i>
8. Types of problems 5 min	Explanation of Tamed, Critical, and Wicked problems (Rittel & Webber, 1973; Grint, 2005) with Colombian urban planning examples	<ul style="list-style-type: none"> • <i>What type of problem is most common in your projects?</i> • <i>Around the city, what do you believe are the most common in planning?</i>

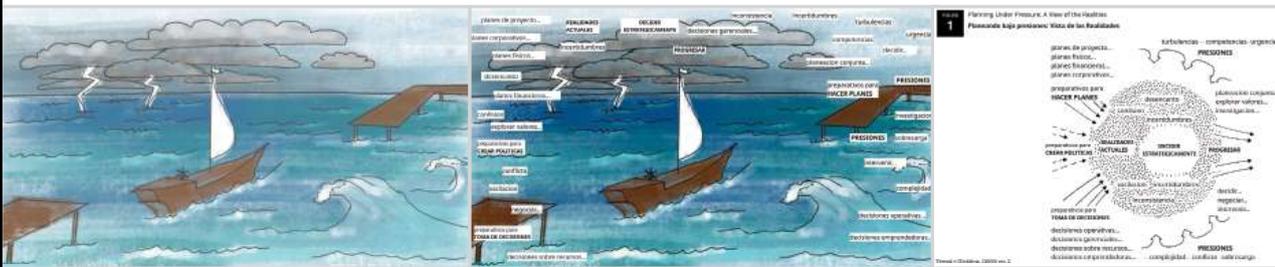
Slides Images and descriptions

Strategic Choice Approach

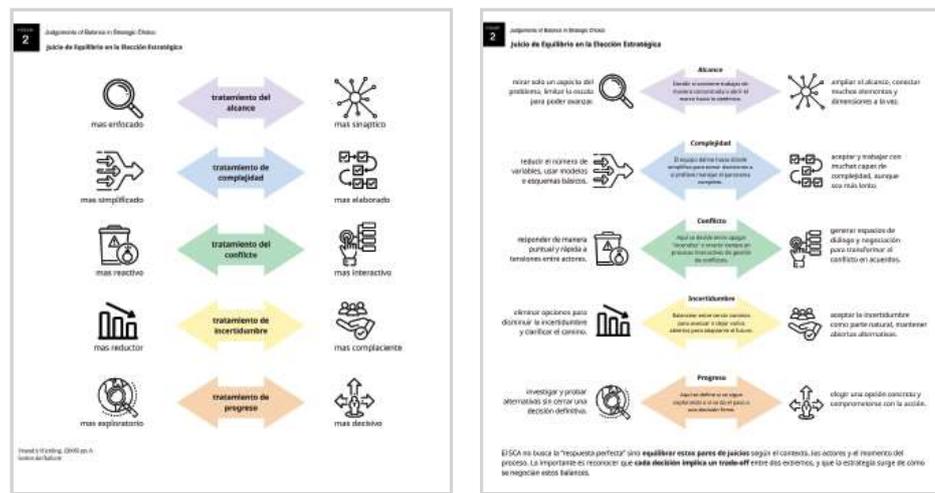


Basado en el libro Planning Under Pressure: The Strategic Choice Approach, (2005) de Friend y Hickling. Reestructurado por Ana María Salazar

s01, 1-3. Includes a QR code linking to the MIRO board and an initial metaphor of the pills (Source: author's adaptation from the Movie MATRIX).



s01, 4-6 . Decision-making process diagram adapted from Friend & Hickling fig. 1 (2005) (source images 4, 5: author's adaptation; source image 6: Friend & Hickling, 2005, p.2 - fig. 1)



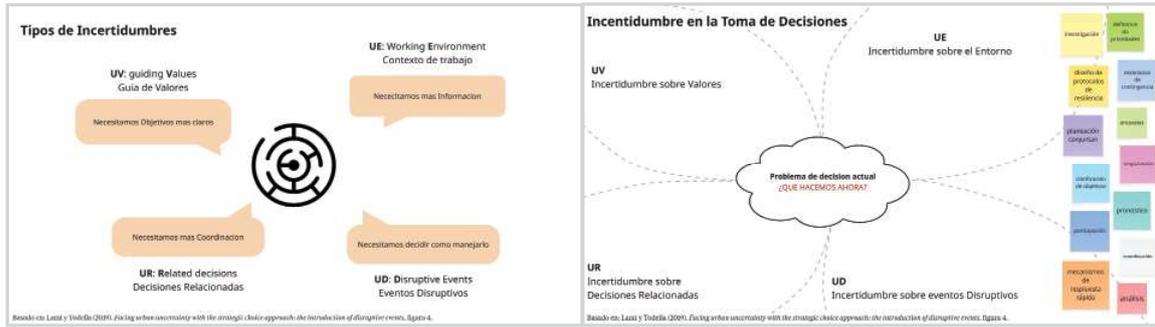
s01, 7. An illustration with icons was used to further explain the scopes. A second version, containing more text, was sent to participants after the first session as a reminder (source images: author's adaptation from Friend & Hickling, 2005, pp. 5-6).



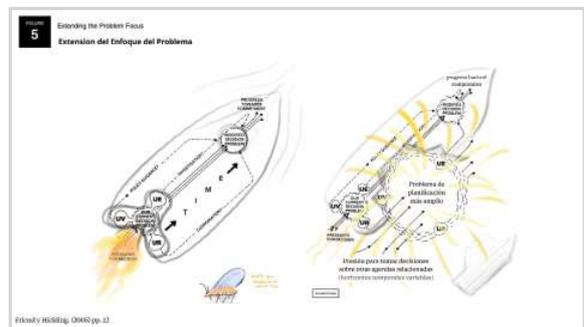
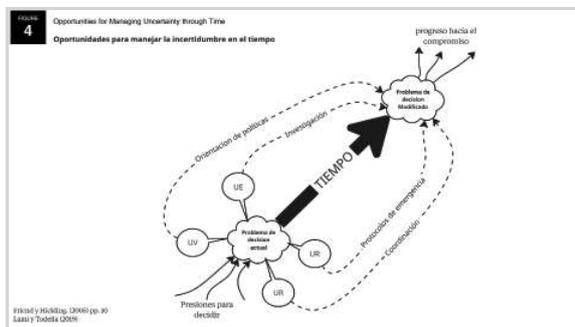
s01, 8: Introduction to wicked problems (source: Rittel & Webber, 1973; Grunt, 2005; The Right Questions, 2025b)

Slides Activity Duration	Description and steps	Key Question/Interaction
9-10. Types of Uncertainty 7 min	<p>Introduction to four types of uncertainty (UE, UR, UV, UD) following Friend & Hickling (2005) and Lami & Todella (2019) Figure 4.</p> <ol style="list-style-type: none"> Based on the ship metaphor, Goals and Objectives under Uncertainty: Using the ship metaphor as a reference, identify and explain the potential goals or objectives a decision-maker might pursue within each of the four types of uncertainty. Visualizing Uncertainty: Arrange “post-its” representing decision elements within the corresponding areas for each type of uncertainty, drawing inspiration from Figure 4 by Lami and Todella (2019). 	<p>Interactive: Students map examples from their own experience onto the uncertainty framework using sticky notes</p> <ul style="list-style-type: none"> <i>What types of uncertainty have occurred when deciding?</i> <i>What type of disruptive events may have occurred that you can recall?</i>
11-12. Extending the problem focus 5 min	<ol style="list-style-type: none"> Explain Figure 4 (Figure 2, Lami & Todella 2019) on Managing Uncertainty Thought Time, focusing on how addressing different uncertainties, although time-consuming, leads to a modified decision problem that is ultimately more accurate. The Uncertainty-Management Metaphor: Reinterpret Figures 4 and 5 (Friend & Hickling, 2005) through the metaphor of a rocket launch. Use this to illustrate the concept that embracing and addressing uncertainty can lead to a superior resolution to a problem. Managing Complexity (The “Rocket Explosion” Metaphor): Discuss the “Rocket Explosion” metaphor. 	<p>(2) Draw a parallel to architectural design, where constraints often result in a better final project.</p> <p>(3) Explain that while expanding a problem to incorporate uncertainties can feel overwhelming, strategic approaches—like a rocket’s escape capsule—allow for adaptive management of the resulting complexity.</p> <ul style="list-style-type: none"> <i>Have you experienced a problem that started small but grew into something much larger?</i>
13. Open reflection 5 min	Blank slide invites participants to share personal/team approaches.	<ul style="list-style-type: none"> <i>How do you make a decision?</i>
14. Simple vs strategic decision process 7 min	<p>Contrast between linear decision-making and SCA’s iterative, interconnected approach</p> <p>Application of Strategic Capacity Assessment (SCA) in Projects: The Strategic Capacity Assessment (SCA) offers a valuable framework for managing uncertainty through the use of balancing mechanisms, structured problem framing, and iterative decision-making processes. Consider how these SCA principles could be specifically implemented within your ongoing projects, particularly the green corridor initiative.</p>	<ul style="list-style-type: none"> <i>Why is SCA more realistic for planning?</i> <i>Which model matches your reality?</i>
<p>Homework Assignment:</p> <ol style="list-style-type: none"> Define Actors: Establish the groups and identify the key actors involved for the next session. Problem and Decision Inventory: Compile a list of the problems to be addressed and the corresponding decisions that need to be made. Problem Classification: Categorize the identified problems by type. Identify Uncertainties: Based on the workshop or lecture material, pinpoint the relevant uncertainties. Actor Values Assessment: Create a list of core values associated with each actor’s point of view. 		

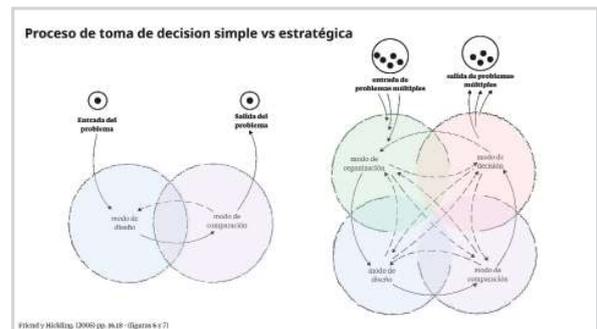
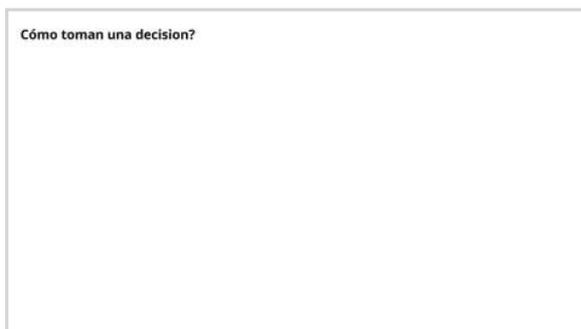
Slides Images and descriptions



s01, 9-10: Types of uncertainty, the introduction to the concepts and an activity (source images: author's adaptation from Friend & Hickling, 2005, fig. 3; Lami & Todella, 2019, fig. 4).



s01, 11-12: Adaptation of the Opportunities for managing Uncertainty through time, with image 2 being a reinterpretation of figures 4 and 5 into a spaceship for easier understanding of the concept. (source: author's adaptation from Friend & Hickling, 2005, fig. 4 and 5; Lami & Todella, 2019).



s01, 13: blank space for comments on how they make their own decisions.

s01, 14: Comparison on simple and strategic Decision-Making. (Source: Friend & Hickling, 2005, p. 16,18 - (fig. 6 & 7).

Conceptos a tener en cuenta:

- Área de Decisión (?)** Es una oportunidad para decidir entre más de dos cursos de acción para ser considerados, ejemplos: donde irse después de la clase, a qué hora irse a trabajar, a qué restaurante ir.
- Categoría de decisión** Son campos o niveles, o ambos. Estos campos pueden ayudar a redefinir o agrupar áreas de decisión similares; a considerar la posibilidad de una estructura de problema multiválida; y a elegir un enfoque del problema cuando existan muchas áreas de decisión. ejemplos: Problemas de decisión de: Situación, Tecnología, Finanzas, Ventas, etc.
- Opción de Decisión (-)** Es cualquiera de los cursos de acción mutuamente excluyentes que pueden considerarse dentro de un área de decisión. ejemplos: dónde irse después de la clase, a qué hora irse a trabajar, a qué restaurante ir, qué restaurante ir, qué restaurante ir, qué restaurante ir.

Mini tarea que nos facilitará las siguientes sesiones:

- Definir tres grupos para trabajar y resolver si es posible estas preguntas:
- Dentro de la zona de la calle 25, entre las carreras 39 y 42 (justo debajo de la Galería Santa Helena),
- Qué Problemáticas visualizan
 - Qué tipos de decisiones toca tomar en la zona (hacer una lista)
 - Qué tipo de problema ven en la zona? (domesticado, crítico, malvado) por favor describir si es posible.
 - Identificar incertidumbres (basadas en las descritas dentro del taller: UV, UR, UE y UD)
 - crear unas categorías de valor, (ejem. capital, ingresos, %de vivienda, biodiversidad, comunidad, etc).

s01, 15-16: Concepts to keep in mind and "homework"

SCA Application

The assignment guides participants in applying the Strategic Choice Approach (SCA) to the Green Corridor case study in Cali, working sequentially through its four modes—Shaping, Designing, Comparing, and Choosing—to structure collective decision-making under uncertainty.

Emphasizing the practical application of SCA in a real urban context, it evaluates Urban Acupuncture (UA) concepts in generating and negotiating strategic options and identifies stages within the SCA cycle where UA principles can maximize opportunities for small-scale yet transformative interventions.

Conducted as a quasi-experimental session, the design captures how SCA opens pathways toward UA applications: one group at Pontificia Universidad Javeriana (PUJ) serves as a hybrid test group with UA introduced by the facilitator, while two groups at Universidad San Buenaventura (USB) apply the framework in parallel—one following a standard SCA process and the other integrating guided UA principles. The formal comparison additionally introduced role selection among three options (see figure 23 and table 7), this way, having a closer analysis without so many variables between both comparable groups. Finally, at the end of the sessions, all workshops were administered two surveys to all participants to capture both quantifiable and unquantifiable data, ensuring coherence in the evaluation process.

This comparative setup analyzes how varying levels of UA integration within SCA influence decision-making and uncertainty management, with all three groups working on the same case study, specifically the Green Corridor sector between Carreras 39 and 42, though differing in methodology and participant profiles

2nd Session (2h) Shaping and Designing

Participants will begin by familiarizing themselves with structuring problems into decision areas, learning how complex sets of issues can be reframed into manageable decision nodes.

They will then practice visual mapping to identify correlations, dependencies, and focus problems, which will help clarify the interconnections between different decision areas. Building on this, they will generate initial sets of options with particular attention to small-scale, context-sensitive Urban Acupuncture (UA) interventions.

Finally, they will prepare the ground for comparison and choice in the following session by testing the compatibility of preliminary options and highlighting any gaps that need to be addressed.



Figure 23: slide of Stakeholder Roles, Priorities, Constraints, and Potential Conflicts.

Table 7

Stakeholder Roles, Priorities, Constraints, and Potential Conflicts in the Case Study Translation

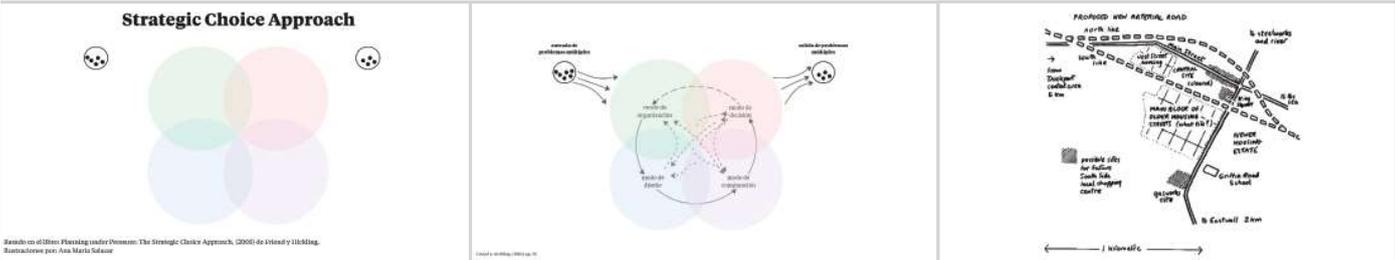
Role	Mayor (Municipal Government)	Developer (Private Sector)	Community (Residents & Informal Commerce)
Description	Represents public interest, political accountability, and institutional mandates	Represents economic viability, return on investment, and market rationality	Represents livelihoods, cultural identity, and anti-displacement concerns
Priorities	Mobility equity, public safety, political visibility, and timely project delivery	Profitability, land value appreciation, formal retail development, and infrastructure efficiency	Preservation of existing economic activities (bodegas), affordable housing, safety, and local identity
Constraints	Limited budget, political cycles (elections), and inter-institutional coordination	Market uncertainty, financing availability, and regulatory approval timelines	Limited formal political power, economic vulnerability, and lack of technical expertise
Potential Conflicts	Tension with Community (displacement concerns), tension with Developer (profitability demands)	Tension with Community (informal commerce displacement), tension with Mayor (public benefit requirements)	Tension with Community (informal commerce displacement), tension with Mayor (public benefit requirements)

Table 8.

Workshop Session 02 Plan: Application of Strategic Choice Approach, Modes 1 and 2: Shaping and Designing.

	Slides Activity Duration	Description and steps	Key Question/Interaction
S H A P I N G	1-3. Reminder and Context 5 min	Quick reminder of the previous concepts: Balances, types of problems, types of uncertainties.	
	4-7. Site and Roles 5 min	Quick reminder of the site and distribution of the roles, (for the Pilot, PUJ, it was left of the participants to decide individually, and evaluate their preferences for USB)	

Slides Images and descriptions



s02, 1-3: Reminder of SCA concepts with the example from Friend & Hickling (2005) book. (s02, 2: figure 8 and s02, 3: figure 18 "South Side: Some Local Orientation")



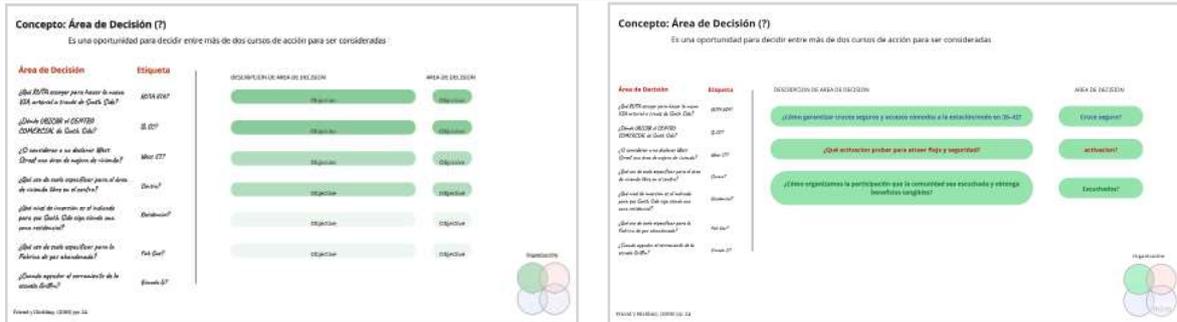
s02, 4-6: Additional illustration for some context of the zone, and Satellite pictures identifying the site, selected focal zones and the proposed location for the train/tram stations (Source: author's illustration and Googlemaps)

ALCALDIA DE CALI	DESARROLLADOR / INMOBILIARIO	JUNTA DE ACCIÓN COMUNAL
<p>Responsabilidades</p> <ul style="list-style-type: none"> Liderar el proyecto (articular Planeación, Movilidad, IMCA, ONGS) Que se siga el POT Gestión financiera (conseguir recursos, mantenimiento en el presupuesto) Gestión social (juegos, recreamientos, socialización, participación) <p>Objetivos</p> <ul style="list-style-type: none"> Crear Áreas habitables (POT-PEMP-PMT) Fixar estándares y (key performance indicators) KPIs públicos (tiempo, costo fiscal, movilidad, aceptación, ambiente, OSM) 	<p>Responsabilidades</p> <ul style="list-style-type: none"> Invertir en la zona para recibir sus ingresos en retorno. Participar en diseños de accesos a las estaciones, carga y descarga de personas. Reactivar el comercio/productivo de la zona. <p>Objetivos</p> <ul style="list-style-type: none"> Lograr hacer una buena inversión para recibir los mayores ingresos. Rentabilidad (retorno sobre la inversión), abarcar comercial/vivienda y valorización; alianzas con Galería Santa Elena y flujos de estación. Aprovechar los salidos de las estaciones. 	<p>Responsabilidades</p> <ul style="list-style-type: none"> Conocer y mediar entre comunidad y entidades. (Censos, mapas de levantamiento, socializaciones) Recopilar las prioridades/necesidades (accesibilidad, trabajos, vivienda) Verificar la viabilidad de compromisos e información. <p>Objetivos</p> <ul style="list-style-type: none"> Ser escuchados Beneficios tangibles (seguridad, espacios comunes, accesibilidad)

s02, 7: Roles cards, see table 7 (Source: Created by Author)

	Slides Activity Duration	Description and steps	Key Question/Interaction
S H A P I N G	8. Decision Area 25 min	<ol style="list-style-type: none"> 1. Write the initial list of problems to solve in the Miro 2. Transform them into decision areas and their given labels 3. Collective discussion with the other groups to rearrange or make them better. 4. Independent work 	Students translate their homework problem lists into Decision Areas with clear, concise labels; collective discussion to refine and consolidate Decision Areas across groups
	9–11. Decision Graphic 15 min	<ol style="list-style-type: none"> 1. Link Decision Areas (pp. 26-28). 2. Reorder Decision Areas by categories (like Figure 36 Decision Graph). 3. Cluster related Decision Areas, individually. 4. Vote for the most critical Focus Problem, Individually. 	Students map Decision Links between Decision Areas, identifying which decisions are interdependent; groups identify a Focus Problem—the subgroup of interconnected Decision Areas they will prioritize. Based on Figure 36 (Friend & Hickiling, 2005).
45 min total Goal: Have a clear idea of the decision areas and their correlation to one another.			

Slides Images and descriptions



s02, 8a: Decision Area, with the book's example and ready-to-use template (used in the Pilot)

s02, 8b: Decision Area, with additional examples, based on the role's values and directly related to the site (used in USB)

(Source: Friend & Hickling, 2005, p. 24)

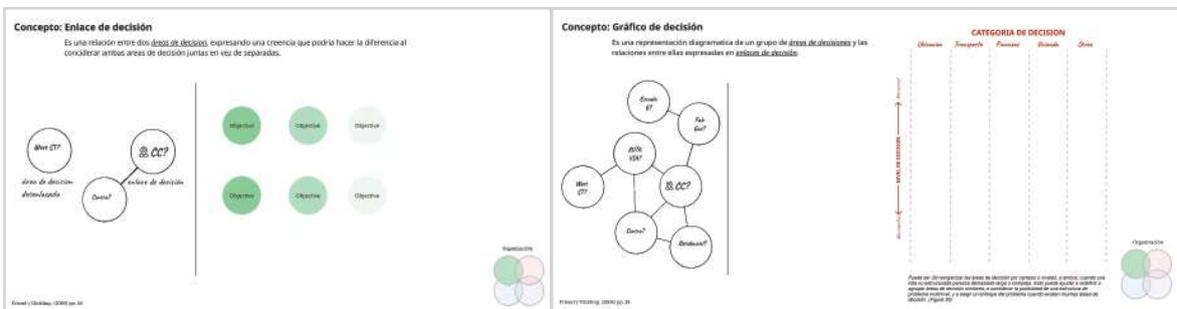


s02, 8c. After the Decision area, 3 slides were left for USB participants to work in groups.

Mayor: *How to guaranty safe and confortable crosswalks for the station/node in cra. 39-42? (Safe Cross?)*

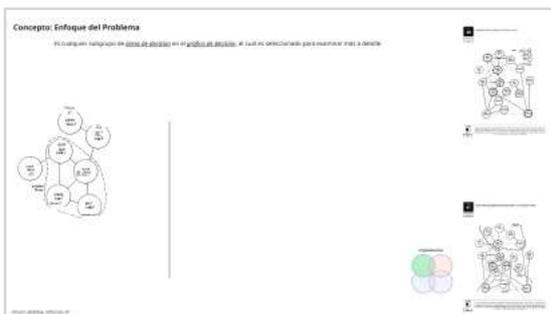
Developer: *Which activity should be tried to draw flow and security? (Activation?)*

JAC: *How can we manage the communitie's participation to be heard and obtain tangible benefits? (Heard?)*



s02, 9: Decision Link with shapes as templates for the decision areas. (Source: Friend & Hickling, 2005, p. 26)

s02, 10: Decision Graphic, the original example and with categories for easier management. (Source: Friend & Hickling, 2005, p. 28 & fig. 36)



s02, 11: Focus Problem, with examples from fig. 40, 41

(Source: Friend & Hickling, 2005, p. 30 & fig. 40-41)

	Slides Activity Duration	Description and steps	Key Question/Interaction
DESIGNING	12. Decision Option 12 min	<ol style="list-style-type: none"> List the possible options of each decision area, understand that we can make a bigger list, but focus only on the “focus problem” to be more time efficient. Focus on the options that might complement or be more UA-centered 	For each Decision Area in the Focus Problem, students generate multiple mutually exclusive options; emphasis on considering small-scale, reversible, context-sensitive options
	13-14. Option Bar and Option Graph 16 min	<p>3 min, Explanation: Option bar, as a way to compare +2 decision areas options between one another.</p> <p>5 min, Explanation of decision Graph exercise, as another option to compare which options from each decision area are compatible.</p> <p>8 min, Make a comparison by group/ stakeholder. Choosing any of the previously explained exercises.</p>	Students test compatibility between options from different Decision Areas using Option Bars (visual representation of incompatibilities) or Option Graphs (network diagrams showing compatible pathways)
	15. Decision Scheme 7 min	Students create scheme matrix showing all possible combinations of compatible options across Decision Areas	

35 min total

Goal: make a proper matrix by understanding the two ways to gather the possibility of compatibility

Main tasks: – Recall previous session’s concepts (balances, uncertainties, tame/critical/wicked problems).

Decision Areas

- Translate initial problems (based on the investigation done during the time between sessions) into decision areas with clear-short labels.
- Rearrange and refine collectively.

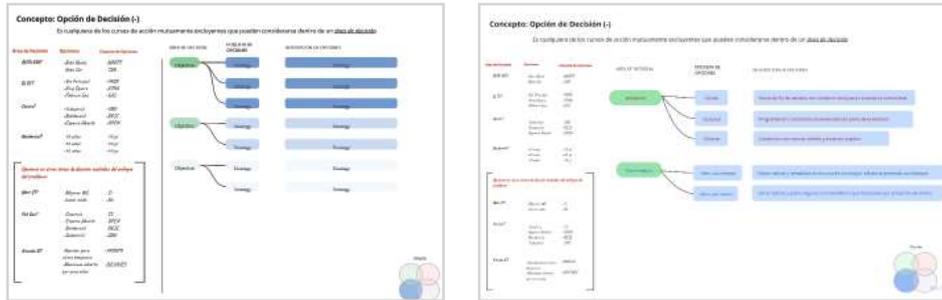
Decision Graphic

- Map decision areas and their interconnections.
- Identify a focus problem.

Output: Map of decision areas + decision links → visual of the collective problem space.

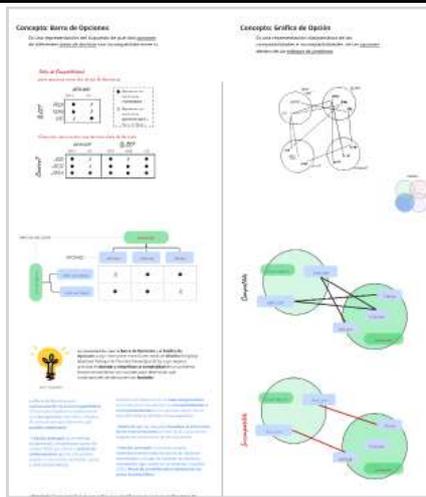
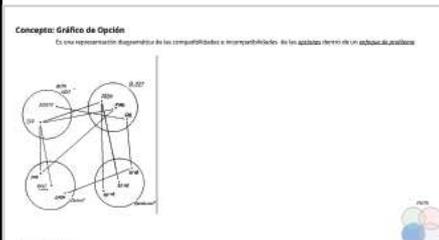
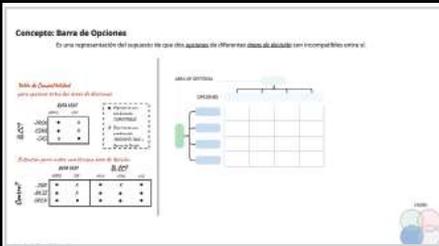
First survey (The general usefulness of SCA)

Slides Images and descriptions



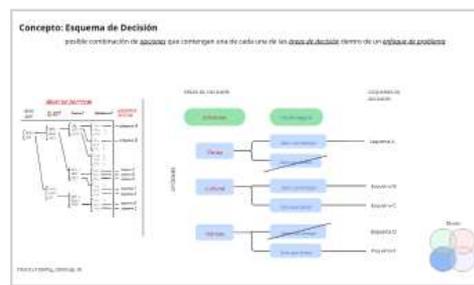
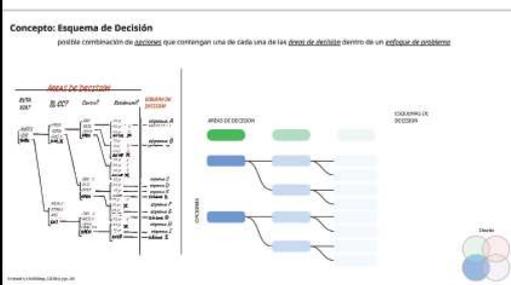
S02, 12a: Decision Option, with the book's example and ready-to-use template (used in the Pilot)
 S02, 12b: Decision Option, with additional examples, based on the role's values and directly related to the site (used in USB)
 (Source: Friend & Hickling, 2005, p. 32, fig. 14) Examples:

- (Activation?) -Weekend fairs with local commerce to attract community (-Fairs)
- Cultural program: Music/Market in the station's plaza (-Cultural)
- Commerce with visible stock and prolonged opening hours (-Visible stock)
- (Safe Cross?) -Locate traffic lights and safe cross in places with high pedestrian flow with timing (-Timing)
- Locate traffic lights and safe cross in places with high pedestrian flow with a button (-Botton)



S02, 13a-14a: (left images) Option bar and Option Graph, with the book's example and ready-to-use template (used in the Pilot)

S02, 13/14b: (right image) Option bar and Option Graph, solved with the examples (for USB), and two additional blank slides for each group to use the selected form of the incompatibility graphs for the options. (p. 34,36, fig. 15, 16)



S02, 15a: Option Scheme, with the book's example and ready-to-use template (used in the Pilot)

S02, 15b: Option Scheme, with additional examples, based on the role's values and directly related to the site (used in USB)
 (Source: Friend & Hickling, 2005, p. 38, fig. 16)

3rd Session (2h) Comparing and Choosing

The third session focuses on the Comparing and Choosing modes of SCA, revisiting and refining the decision areas, options, and schemes developed in Session 2. Participants evaluate alternative schemes against multiple criteria, recognize trade-offs and hidden assumptions, and commit to action despite residual uncertainties. **For Group B (USB, SCA+UA)**, the session additionally explores how **Urban Acupuncture interventions can serve as tactical, low-cost responses to uncertainty** while creating momentum toward long-term infrastructure integration (the TCV rail system).

To support rigorous evaluation within time constraints, an **AI-assisted prompt was employed**. Rather than asking students to conduct independent literature reviews or data research—impractical given limited access to the sources—the **AI interaction seeks to synthesize and apply existing material from the preliminary investigation made by the researcher, and sources** from SCA and UA (Friend & Hickling 2005; Lami & Todella 2019; Solà-Morales 1992; Lerner 2014) to the workshop case. This approach establishes clear decision-making rules and boundaries before AI processes requests, ensuring realistic and data-grounded evaluation criteria (capital investment ranges, employment impacts, safety metrics, regulatory feasibility) rather than speculative responses.

Groups input their Session 2 schemes as reference images or textual descriptions, receiving tailored comparative and uncertainty analysis customized to their chosen actor role (Mayor, Developer, Community, Business Owner; in table 7). The structured prompt design ensures consistency across workshop iterations and

maintains responsiveness to emergent group questions.

Following guidance from legal and methodological consultants (Rees 2020; Franco & Rouwette 2022), the AI interaction was designed by first clearly defining context, decision rules, and expected outputs—preventing drift into unfounded speculation while preserving the ability to adapt analysis based on real-time workshop progress (summarised in table 9). This structured methodology serves three specific purposes:

1. Comparing Mode (Template A & B): AI evaluates each scheme across 6 criteria (Template A: SCA only) or 9 criteria (Template B: SCA+UA), producing numerical ratings (1–5 scales) and cost estimates grounded in real Cali projects (TCV feasibility study, SITM-MIO Phase 1, PEMP budget allocations). This enables groups to see trade-offs explicitly: cheaper schemes often score lower on safety or connectivity; more ambitious schemes require greater institutional coordination. Template B adds three criteria—Catalytic Potential, Adaptability & Learning, and Resilience to Disruptions—reflecting UA’s emphasis on momentum-building and flexibility with the connection of websides with UA examples.

2. Choosing Mode (Template A & B): AI inventories remaining uncertainties (UE/UR/UV/UD) after scheme selection, proposes resolution pathways, and defines Key Performance Indicators (KPIs) that operationalize monitoring. Template A focuses on institutional and technical resolutions (permits, budgets, studies, coordination); Template B adds UA-specific pathways, asking whether each uncertainty can be tested via low-cost, quick pilots before full commitment. This reflects the methodological

difference: **Template A** favors certainty-seeking through extended planning; **Template B** favors adaptive experimentation through iterative testing.

3. Commitment Package Construction:

Both templates culminate in a structured decision package specifying: (a) what the group commits to now (immediate actions with clear KPIs), (b) what decisions are deferred pending further information, and (c) what contingen-

cies are in place if disruptive events occur (political change, funding shortfalls, environmental shocks). **For Group B, this package seeks to incorporate UA interventions as catalytic stepping stones:** short-term pilots designed to reduce uncertainty, build community buy-in, and create conditions for TCV integration to be latter compared by the stakeholders into a triangulation and socialization of the participants results.

Table 9
Methodological Use of AI in Comparing and Choosing Modes

	Comparing Mode	Choosing Mode
Input	Student groups present 3–5 alternative schemes from Session 2	Groups select ONE preferred scheme from Comparing Mode evaluation
AI Task	Evaluate this scheme on the determined comparison values defined by participants	List uncertainties (UE/UR/UV/UD) that still prevent full commitment to this scheme
Output Format	Numerical ratings (1–5 scales) + cost ranges + qualitative justifications	Uncertainty inventory + resolution strategies + KPIs + commitment timeline
Group Decision	Based on scores, which scheme best balances trade-offs? (Action: Select One)	Given uncertainties, what to commit to: NOW, DEFER, or plan as Contingency? (Action: Build Package)
Documentation	Comparison matrix	Commitment Package (summary: Now/Defer/Contingency + KPIs)
Use	Shows how methodological framing (SCA vs SCA+UA) shifts evaluation criteria and scheme selection	Shows how UA framing encourages adaptive, pilot-based commitments vs. wait-for-certainty approaches

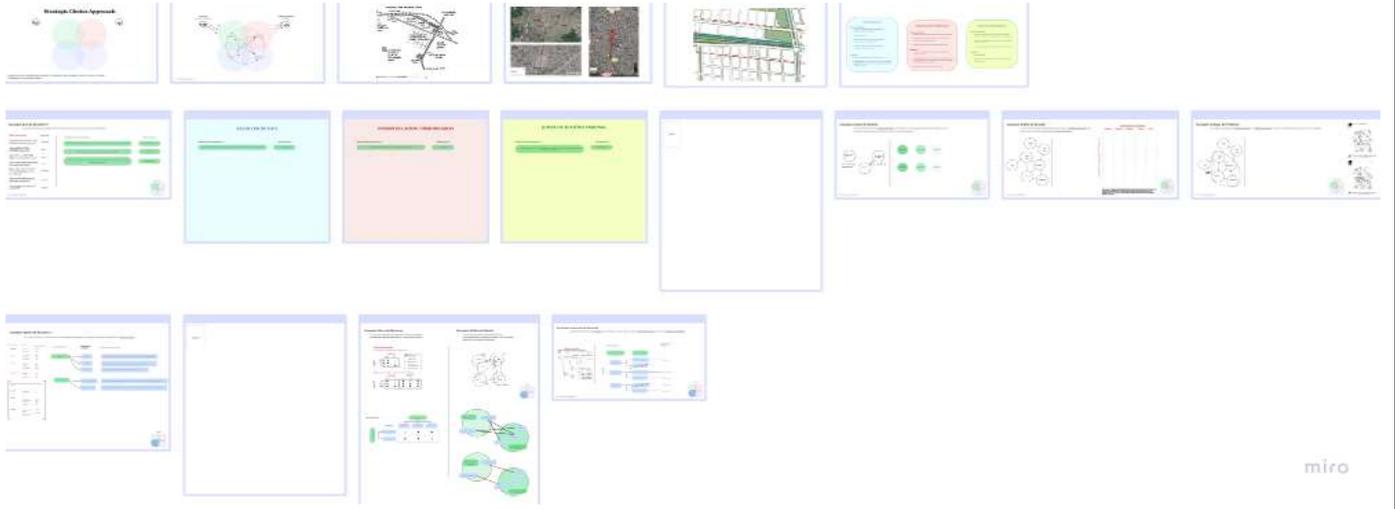
Note. Table created by the author to summarize how AI is integrated into two decision-making modes—“Comparing Mode” (multi-scheme evaluation using participant-defined criteria) and “Choosing Mode” (selection of one scheme with explicit uncertainty inventory, resolution strategies, and commitment planning).

Table 10.

Workshop Session 03 Plan: Application of Strategic Choice Approach, Modes 3 and 4: Comparing and Choosing.

	Slides Activity Duration	Description and steps	Key Question/Interaction
	8–15. Reminder and Context 5 min	<p>7 min On decision area, revisiting the previous selections, add more if necessary, explain the reasons why they are relevant (or not anymore)</p> <p>3 min On the decision graphic, reevaluate the connections</p> <p>7 min On Decision Option, revisiting the previous selections, add more if necessary, explain the reasons why they are relevant (or not anymore)</p> <p>5 min On Decision Scheme, reevaluate the coherence and relevance of each possible scheme.</p>	Groups review and refine their Decision Areas, Decision Links, Decision Options, and Decision Schemes from Part 1; add missing elements or adjust based on new insights
C O M P A R I N G	16. Comparison Area 14 min	<p>5 min Define the criteria - Clarification of the concept: Comparison areas are criteria or Key Performance Indicators (KPIs) through which schemes are compared.</p> <p>10 min Apply criteria: For each scheme, investigate “how it performs in each comparison area (e.g., Capital recured, timing, etc.).</p> <p>Then, compare scenarios in pairs to make trade-offs visible. Define limits to each comparison area if possible</p>	<p>Participants must think in both quantitative (cost, timing, measurable outputs) and qualitative (identity, social acceptance, ecological value) terms, as Performance Indicators (KPIs).</p> <p>Focus on the comparison areas that go along with UA or prioritize UA Goals/Values/Timing.</p> <p>For each scheme, students investigate how it performs against each Comparison Area; use of AI to generate preliminary impact assessments and identify trade-offs</p>
	17. Relative Comparison 7 min	Introduction of the idea of relative comparison for latter usage.	

Slides Images and descriptions



Concepto: Área de Comparación (:)
Es una descripción de cualquier campo de preocupación en el cual se desea comparar las consecuencias de las distintas alternativas de los cursos de acción.

Área de Comparación	Etiqueta	DESCRIPCIÓN DE ÁREA DE COMPARACIÓN	ETIQUETA
Diferencia de Capital en partes de las áreas de construcción y adquisición de propiedades	OPORTU:	Objetivo	Objetivo
Diferencia en los flujos de ingresos	INGRESOS:	Objetivo	Objetivo
Diferencia en oportunidades de trabajo local	TRABAJO:	Objetivo	Objetivo
Diferencia en la confianza y calidad de vida para los residentes de "South Side"	RESIDENCIO:	Objetivo	Objetivo

Comentarios

Concepto: Área de Comparación (:)
Es una descripción de cualquier campo de preocupación en el cual se desea comparar las consecuencias de las distintas alternativas de los cursos de acción.

Área de Comparación	Etiqueta	DESCRIPCIÓN DE ÁREA DE COMPARACIÓN	ETIQUETA
Diferencia de Capital en partes de las áreas de construcción y adquisición de propiedades	OPORTU:	Diferencias entre la sensación de seguridad que puedan sentir los habitantes de la zona:	Sensación seguridad

Categorías:
 Ubicación
 Movilidad
 Socioeconomía
 Violencia
 Equipamientos
 Ambiental/Paisajístico
 Cultural/Identidad
 Gestión/Gobernanza
 Normativa (edificabilidad)
 Espacios Públicos
 Patrimonio

Comentarios

s03, 16a: Comparison Area, with the book's example and ready-to-use template (used in the Pilot)
 s03, 16b: Comparison Area, solved with a example (for USB), with categories to guide the comparison areas (p. 44/fig. 19)
 Example: Differences between the perception of security that residents might feel in the zone (Security perception:)

Concepto: Evaluación Relativa
Para cualquier afirmación sobre las consecuencias, dentro de un área de comparación, de seguir un curso de acción en lugar de otro.

ÁREA DE DECISIÓN	ÁREA DE COMPARACIÓN	ESCALA DE DECISIÓN	COMPARACIÓN
USDT - ADR - DND - 10 yr	USDT - ADR - DND - 10 yr	USDT - ADR - DND - 10 yr	USDT - ADR - DND - 10 yr

Comentarios

Concepto: Evaluación Relativa
Para cualquier afirmación sobre las consecuencias, dentro de un área de comparación, de seguir un curso de acción en lugar de otro.

ÁREA DE DECISIÓN	ÁREA DE COMPARACIÓN	ESCALA DE DECISIÓN	COMPARACIÓN
USDT - ADR - DND - 10 yr	USDT - ADR - DND - 10 yr	USDT - ADR - DND - 10 yr	USDT - ADR - DND - 10 yr

Comentarios

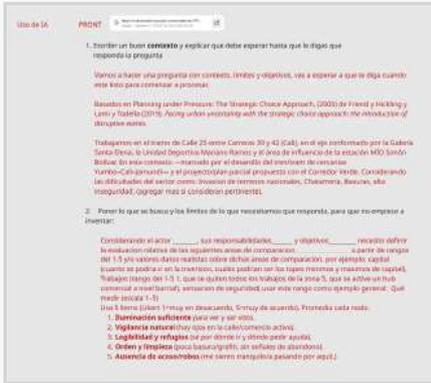
s03, 17a: Relative Evaluation, with the book's example and ready-to-use template (used in the Pilot)
 s03, 17b: Relative Evaluation, solved with a examples (for USB), this, to explain the activity and pass first towards the slides of AI use. (p. 46,/fig. 20)

	Slides Activity Duration	Description and steps	Key Question/Interaction
C O M P A R I N G	(AI.01). Use of AI 10 min	Based on the slide with the pront, already made as a context and template, give the participants use the selected AI to provide the information for the relative comparison ans Advantage juedgement with the sources previosly selected.	follow the instructions on the slide
	18. Advantage Comparison 7 min	Use the advantage comparison scheme to set a more visual explanation of the schemes against their comparison areas.	Students compare schemes in pairs to make trade-offs visible; use Advantage Judgement diagrams to visualize which schemes perform better on which criteria
	19. Shortlist 7 min	Make the scale evaluation and try to follow Figure 66, which is more complete. To be able to rank the schemes better.	Groups rank schemes using a rigorous evaluation scale combining multiple Comparison Areas; identify top 2–4 schemes for deeper consideration

35 min total

Introduce them to the different strategies to make a valuable comparison of the options.

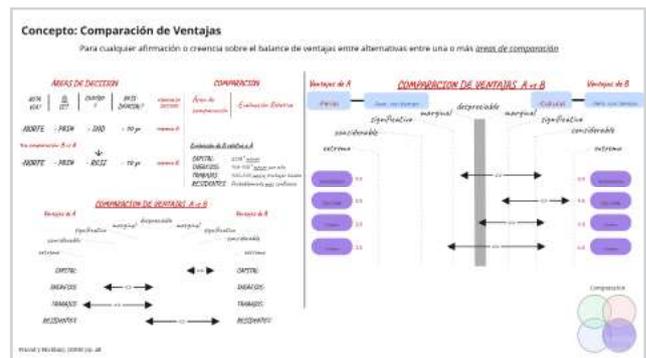
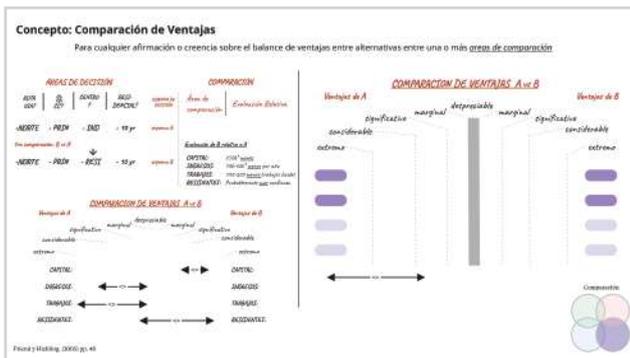
Slides Images and descriptions



s03, (AI.01): Steps and instructions on the use of AI (used with group A)

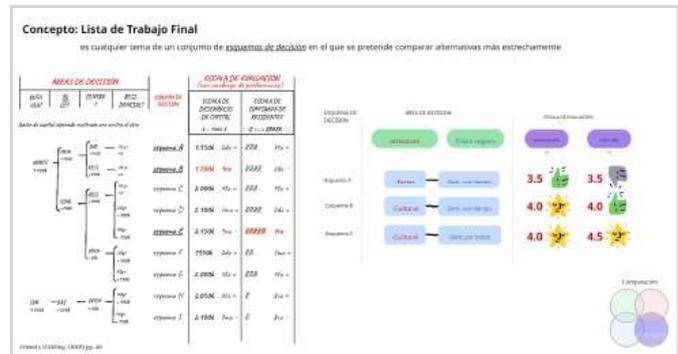
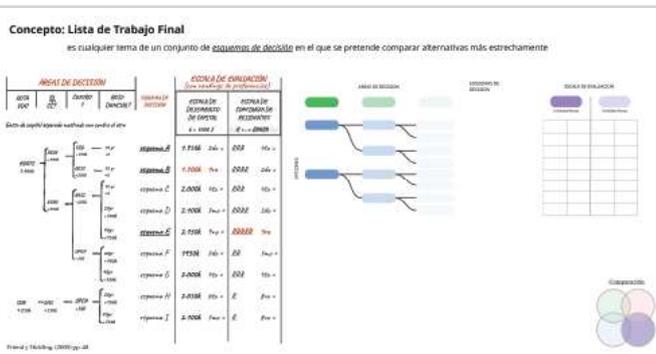
s03, (AI.01): Steps and instructions on the use of AI, with the additional explanation of UA into de pront (used with group B)

Both Pronts followed instructions from Rees (2020), Franco & Rouwette (2022) and were only introduced to the formal comparison workshops at USB. and 3 blank slides were left beside it to gather the screenshots from their interaction with the AI.



s03, 18a: Advantage Comparison, with the book's example and ready-to-use template (used in the Pilot)

s03, 18b: Advantage Comparison, solved with a examples (for USB), to Explain the activity using AI-provided data alongside personal insights drawn from that information. (p. 46/fig. 21)

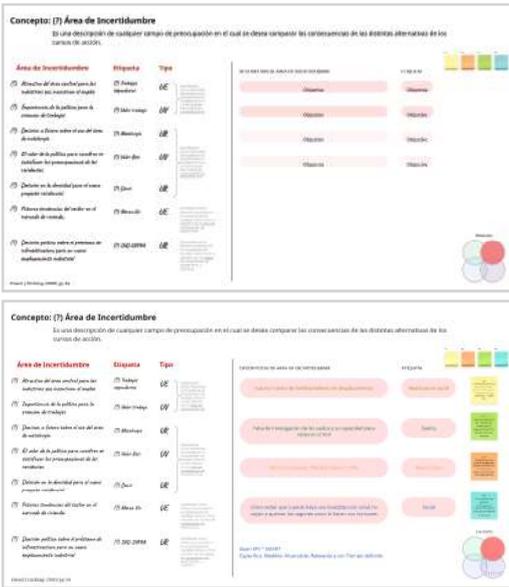


s03, 19a: Shortlist, with the book's example and ready-to-use template (used in the Pilot)

s03, 19b: Shortlist, solved examples (for USB), to explain the activity and use the data provided by the AI (p. 46/fig. 22)

	Slides Activity Duration	Description and steps	Key Question/Interaction
C H O O S I N G	20. Uncertainty Area 6 min	Students identify unresolved uncertainties that could affect scheme viability.	Emphasis on Disruptive Events (UD) as particularly relevant in Latin American contexts (political transitions, funding volatility, community protests)
	(AI.02). Use of AI 10 min	Based on the slide with the prompt, already made as a context and template, give the participants use the selected AI to provide the information for following exercises in the Choosing mode, with the sources and their defined Uncertainty Areas to achieve it.	follow the instructions on the slide
	21. Explorative option 12 min	Brainstorm Explorative options and resolutions categorized by uncertainty.	UA as a resolution to uncertainty
	22. Action Scheme 5 min	Compare at least 4 schemes into a more rigorous index of uncertainty areas and comparison areas.	Students outline immediate actions (quick wins), deferred decisions (longer-term choices awaiting more information), and contingency plans (responses to disruptive events); comprehensive Commitment Packages were introduced but not fully developed due to time constraints
	23. Commitment Package 12 min	Have the commitment package as a list of long-term strategies and focus on the strategies that are UA-centered to solve different uncertainties.	
24-25. Final Figures 5 min Summary diagram showing the full SCA cycle applied to Green Corridor; open space for questions and reflection			
35 min Recognize the different types of uncertainties and the elaborate possible solutions or options to resolve the uncertainty. Total time: 1h 30min (final 10 min for compilation of surveys 1 and 2)			

Slides Images and descriptions



s03, 20a: (?) Uncertainty Area, with the book's example and ready-to-use template (used in the Pilot)

s03, 20b: (?) Uncertainty Area, solved with a examples (for USB), this, to explain the activity and pass first towards the slides of AI use. (p. 54/fig. 23)

UV: Uncertain future for displaced families and workshops (?) (Social Relocation (?))
> Uncertainty about what will happen to the people located in the Green Corridor who have lived there for over 30 years.

UE: Lack of research on the soils and their capacity to support the TCV. (?) (Soils (?))
>Lack of soil studies for the implementation of the TCV, which could make it more costly.

UR: Delay in the agreement, 70% (8.4 trillion COP). (?) (Finance (?))
>Possible delay of many processes due to the lack of 70% financing, which also halts progress in other departments.

UE: How to prevent social dissatisfaction from leading to the burning of train cars as happens with buses. (?) (Social (?))
> To assess possible contingencies and disruptive events that could affect the project.



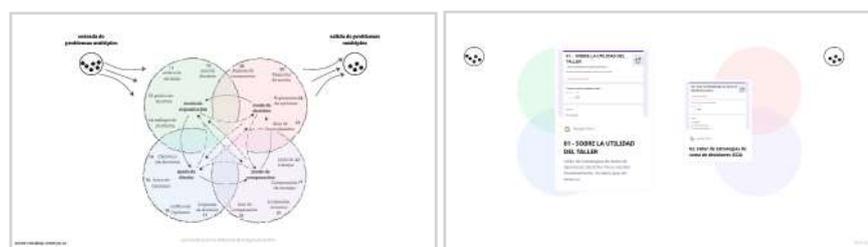
s03, (AI.02): Steps and instructions on the use of AI (group A)

s03, (AI.02): Steps and instructions on the use of AI, with the additional explanation of UA into de pront (group B)

Both Pronts followed instructions from Rees (2020), Franco & Rouwette (2022) and were only introduced to the formal comparison workshops at USB and in this case had some examples from the TCV at the bottom. 3 blank slides were left beside it to gather the screenshots from their interaction with the AI.



s03, 21-23: Explorative Option, Action Scheme, and Commitment Package. This slides with examples from the book (p. 56, 58, 62 / fig. 24, 25, 26) with ready to use templates to complete the excercises. (no changes were made after the pilot).



s03, 24-25: Orientations figure with all the vocabulary of Strategic Choice (p.18/fig. 28), and links to access both surveys.

The main tasks for this session involve revisiting and refining decision areas, options, and schemes from earlier work, defining clear comparison criteria that balance quantitative measures like cost, timing, and outputs with qualitative aspects such as identity, acceptance, and ecological impact, and emphasizing Urban Acupuncture values of adaptability and catalytic effect. Participants evaluate and compare schemes against these criteria, making trade-offs visible, while also identifying uncertainties—social, financial, political, and technical—particularly relevant to the local context. They then develop exploratory options to address these uncertainties, using UA as tactical responses through temporary interventions and pilot projects, before combining schemes into provisional action plans and commitment packages that integrate long-term strategies with small-scale interventions. The session concludes with a synthesis of the SCA cycle and reflections on how it structures collective decision-making and embeds UA principles.

Translation AI slides: Template A: SCA (non UA)

AI. 01 - Use of AI, Pront:

PRONT

1. Escribir un buen **contexto** y explicar que debe esperar hasta que le digas que responda la pregunta

Vamos a hacer una pregunta con contexto, límites y objetivos, vas a esperar a que te diga cuando este listo para comenzar a procesar.

Basados en Planning under Pressure: The Strategic Choice Approach, (2005) de Friend y Hickling y Lami y Todella (2019). Facing urban uncertainty with the strategic choice approach: the introduction of disruptive events.

Trabajamos en el tramo de Calle 25 entre Carreras 39 y 42 (Cali), en el eje conformado por la Galería Santa Elena, la Unidad Deportiva Mariano Ramos y el área de influencia de la estación MIO Simón Bolívar. En este contexto —marcado por el desarrollo del tren/tram de cercanías Yumbo-Cali-Jamundi— y el proyecto/plan parcial propuesto con el Corredor Verde. Considerando las dificultades del sector como: Invasión de terrenos nacionales, Chatarrería, Basuras, alta inseguridad, (agregar mas si consideran pertinente).

2. Poner lo que se busca y los límites de lo que necesitamos que responda, para que no empiece a inventar:

Considerando el actor _____, sus responsabilidades _____ y objetivos _____, necesito definir la evaluación relativa de las siguientes áreas de comparación _____ a partir de rangos del 1-5 y/o valores-datos realistas sobre dichas áreas de comparación, por ejemplo: capital (cuanto se podría ir en la inversión, cuáles podrían ser los toques mínimos y máximos de capital), Trabajos (rango del 1-5 1, que se quiten todos los trabajos de la zona 5, que se active un hub comercial a nivel barrial), sensación de seguridad[usar este rango como ejemplo general: Qué medir (escala 1-5) Usa 5 items (Likert 1=muy en desacuerdo, 5=muy de acuerdo). Promedia cada nodo.

1. **Iluminación suficiente** para ver y ser visto.
2. **Vigilancia natural** (hay ojos en la calle/comercio activo).
3. **Legibilidad y refugios** (sé por dónde ir y dónde pedir ayuda).
4. **Orden y limpieza** (poca basura/graffiti, sin señales de abandono).
5. **Ausencia de acoso/robos** (me siento tranquilo/a pasando por aquí).

Figure 24: Use of AI in comparing mode for the SCA (non UA) workshop. (source: By Author)

1. Write a context and explain that it must wait until you tell it when to start:
We're going to ask a question with context, limits, and objectives. Wait until I say "READY TO PROCESS."

Based on: Planning Under Pressure: The Strategic Choice Approach (2005) by Friend and Hickling, and Lami and Todella (2019). Facing urban uncertainty with the strategic choice approach: the introduction of disruptive events.

We're working on: Calle 25 between Carreras 39 and 42 (Cali), along the axis formed by Galería Santa Elena, the Mariano Ramos Sports Complex, and the MIO Simón Bolívar station area. In this context—marked by the Yumbo-Cali-Jamundi commuter train/tram development—and the proposed Green Corridor partial plan. Considering sector challenges such as: national land occupation, scrap yards, garbage, high insecurity, (add more if relevant).

2. State what is sought and the limits of what we need it to respond, so it doesn't start inventing:

Considering the actor _____, their responsibilities _____ and objectives _____, I need to define the relative evaluation of the following comparison areas _____ using 1-5 ranges and/or realistic values/data on those comparison areas. As general example: Capital (how much could be invested, what minimum and maximum caps might be); Jobs (1-5 range: 1 = all jobs in the arare lost; 5 = activates a neighborhood-level commercial hub); Perceived safety (use this general range as an example: What to measure (1-5 scale) Use 5 items (Likert 1=strongly disagree, 5=strongly agree). Average each node; Sufficient lighting to see and be seen; Natural surveillance (eyes on the street/active commerce); Legibility and refuges (I know where to go and where to ask for help); Order and cleanliness (little garbage/graffiti, no signs of abandonment); Absence of harassment/theft (I feel safe walking here) (Social (?))

AI. 02 - Use of AI, Pront:

Uso de IA PRONT

1. Escribir un buen **contexto** y explicar que debe esperar hasta que le digas que responda la pregunta

Vamos a hacer una pregunta con contexto, límites y objetivos, vas a esperar a que te diga cuando este listo para comenzar a procesar.

Basados en Planning under Pressure: The Strategic Choice Approach, (2005) de Friend y Hickling y Lami y Todella (2019). Facing urban uncertainty with the strategic choice approach: the introduction of disruptive events.

Trabajamos en el tramo de Calle 25 entre Carreras 39 y 42 (Cali), en el eje conformado por la Galería Santa Elena, la Unidad Deportiva Mariano Ramos y el área de influencia de la estación MIO Simón Bolívar. En este contexto —marcado por el desarrollo del tren/tram de cercanías Yumbo-Cali-Jamundi— y el proyecto/plan parcial propuesto con el Corredor Verde. Considerando las dificultades del sector como: Invasión de terrenos nacionales, Chatarrería, Basuras, alta inseguridad, (agregar mas si consideran pertinente).

2. Poner lo que se busca y los límites de lo que necesitamos que responda, para que no empiece a inventar:

Considerando el actor _____, sus responsabilidades _____ y objetivos _____, necesito una lista de posibles incertidumbres a la hora de tomar una decisión (como si fuera el actor), estas **incertidumbres** tienen que estar relacionadas con UE (entorno de trabajo), UR (decisiones relacionadas) UV (sobre los valores/objetivos) y UD (sobre eventos disruptivos). Necesito la descripción, saber qué tipo de incertidumbre es y cuáles podrían ser posibles resoluciones o pasos a seguir para lograr resolver o reducir la incertidumbre, cuáles de las siguientes áreas de comparación _____ podrían ayudarnos a resolverlo.

Ejemplo (Tren de Cercanías)

- **Tiempo:** "La obra parcial emitida en 90 días por tramo".
- **Costo:** "Inversión municipal ejecutada 95% del plan anual".
- **Viabilidad regulatoria:** "Actos habilitantes completos en 500 días del tramo Fase 1".
- **Asignación social:** "Procesión de ocupación 3.8/5 en ciudades piloto".
- **Accesibilidad:** "Cobertura de ciclo 25% y 1.5 TC por día de ciclo del usuario".
- **Operación:** "Puntualidad del servicio 95% (más de 5X por millón de km)".
- **Resettlement:** "100% de hogares reubicados con solución aceptada antes de inicio".

En la práctica: Define el KPI (what you measure), establece la meta/horizonte (cuándo) y el horizonte. Si la meta se cumple, avanza a re; si no, ajusta el paquete de decisión.

Figure 25: Use of AI in choosing mode for the SCA (non UA) workshop. (source: By Author)

1. Write a context and explain that it must wait until you tell it when to start.

"Same as AI.01 initial pront"

2. State what is sought and the limits of what we need it to respond, so it doesn't start inventing:

Considering the actor _____, their responsibilities _____, and objectives _____, I need a list of possible uncertainties when making a decision (as if you were the actor). These uncertainties must be related to UE (working environment), UR (related decisions), UV (values/objectives), and UD (disruptive events). I need the description, type of uncertainty, possible resolutions or steps to resolve/reduce the uncertainty, and which of the following comparison areas _____ could help resolve it.

Examples (Commuter Train):
Time: "Partial permit issued ≤ 90 days per segment"
Fiscal cost: "Municipal disbursement executed ≥ 95% of annual plan"
Regulatory viability: "Enabling acts completed 100% for Phase 1 segments"
Social acceptance: "Perceived safety ≥ 3.8/5 at pilot stations"
Environmental/UA: "Tree canopy ≥ 25% and lower 1.5°C in heat island at node"

Operations: "Service punctuality ≥ 95%; failures ≤ X per million km"
Resettlement: "100% of households relocated with accepted solution before construction"

In practice: define the KPI (what you measure), set the target/threshold (how much), and horizon (when). If the target is met, you proceed; if not, you adjust the decision package.

Translation AI slides: Template B: SCA + UA

AI. 01 - Use of AI, Pront:

Uso de IA PRONT

1. Escribir un buen contexto y explicar que debe esperar hasta que le digas que responda la pregunta

Vamos a hacer una pregunta con contexto, límites y objetivos, vas a esperar a que te diga cuando este listo para comenzar a procesar.

Basados en Planning under Pressure: The Strategic Choice Approach, (2005) de Friend y Hickling y Lami y Yodella (2019). Facing urban uncertainty with the strategic choice approach: the introduction of disruptive events.

Trabajamos en el tramo de Calle 25 entre Carreras 39 y 42 (Cali), en el eje conformado por la Galería Santa Elena, la Unidad Deportiva Mariano Ramos y el área de influencia de la estación MIO Simón Bolívar. En este contexto —marcado por el desarrollo del tren/tram de cercanías Yumbo-Cali-Jamundí— y el proyecto/plan parcial propuesto con el Corredor Verde. Considerando las dificultades del sector como: Invasión de terrenos nacionales, Chatarra, Basuras, alta inseguridad, (agregar mas si consideras pertinentes).

Teniendo en cuenta como prioridad estrategias relacionadas con la Acupuntura Urbana, Como Urbanismo táctico, Colaboración con la comunidad, trabajar la identidad y pertenencia de los vecinos.

2. Poner lo que se busca y los límites de lo que necesitamos que responda, para que no empiece a inventar; en este caso, cada grupo debe hacer la pregunta y compartir una foto del esquema seleccionado.



Considerando el actor _____ sus responsabilidades _____ y objetivos _____, necesito definir la evaluación relativa de las siguientes áreas de comparación _____, a partir de rangos del 1-5 y/o valores datos realistas sobre dichas áreas de comparación, por ejemplo: capital (cuanto se podría ir en la inversión, cuales podrían ser los toques mínimos y máximos de capital), Trabajos (rango del 1-5-1, que se quiten todos los trabajos de la zona S, que se active un flujo comercial a nivel barrio), sensación de seguridad (usar este rango como ejemplo general...), Quié. medic (escala 1-5) Usa 5 ítems (Rubert 1-muy en desacuerdo, 5-muy de acuerdo), Promedia cada nodo.

Realizar estos rangos basados en el esquema de la foto:

Acupuntura urbana: regeneración del esp. (un grupo de intervención en un espacio urbano existente para mejorar su calidad de vida y promover la regeneración de su entorno urbano)

Figure 26: Use of AI in comparing mode for the SCA+UA workshop. (source: By Author)

AI. 02 - Use of AI, Pront:

Uso de IA PRONT

1. Escribir un buen contexto y explicar que debe esperar hasta que le digas que responda la pregunta

Vamos a hacer una pregunta con contexto, límites y objetivos, vas a esperar a que te diga cuando este listo para comenzar a procesar.

Basados en Planning under Pressure: The Strategic Choice Approach, (2005) de Friend y Hickling y Lami y Yodella (2019). Facing urban uncertainty with the strategic choice approach: the introduction of disruptive events.

Trabajamos en el tramo de Calle 25 entre Carreras 39 y 42 (Cali), en el eje conformado por la Galería Santa Elena, la Unidad Deportiva Mariano Ramos y el área de influencia de la estación MIO Simón Bolívar. En este contexto —marcado por el desarrollo del tren/tram de cercanías Yumbo-Cali-Jamundí— y el proyecto/plan parcial propuesto con el Corredor Verde. Considerando las dificultades del sector como: Invasión de terrenos nacionales, Chatarra, Basuras, alta inseguridad, (agregar mas si consideras pertinentes).

Teniendo en cuenta como prioridad estrategias relacionadas con la Acupuntura Urbana, Como Urbanismo táctico, Colaboración con la comunidad, trabajar la identidad y pertenencia de los vecinos.

2. Poner lo que se busca y los límites de lo que necesitamos que responda, para que no empiece a inventar; en este caso, cada grupo debe hacer la pregunta y compartir una foto del esquema seleccionado.



Considerando el actor _____ sus responsabilidades _____ y objetivos _____, necesito una lista de posibles incertidumbres a la hora de tomar una decisión (como si fuera el actor), estas incertidumbres tienen que estar relacionadas con UE (entorno de trabajo), UR (decisiones relacionadas) UV (sobre los valores/objetivos) y UD (sobre eventos disruptivos). Necesito la descripción, saber qué tipo de incertidumbre es y cuales podrían ser posibles resoluciones o pasos a seguir para lograr resolver o reducir la incertidumbre, cuales de las siguientes áreas de comparación _____ podrían ayudarnos a resolverlo, priorizando opciones relacionadas con Acupuntura Urbana: Como Urbanismo táctico, Colaboración con la comunidad, trabajar la identidad y pertenencia de los vecinos. Usa como ejemplo referente el siguiente proyecto: _____ (pueden usar ejemplos de este artículo)

Ejemplos Clave de Conceptos

- Tiempo: "Cinco parcelas verticales en 90 días por tramo"
- Coste social: "Desarrollo mixto social en 85% del eje urbano"
- Viabilidad regulatoria: "Nuevas regulaciones integradas en 100% de los tramos Fase 1"
- Adaptación social: "Percepción de seguridad 2.0/5 en estaciones piloto"
- Ambiosocial: "Cultura de calle a 25% y 1.8°C en día de calor del medio"
- Operación: "Percepción del servicio a 35% (solo X por haber de ser)"
- Responsabilidad: "100% de hogares beneficiados con servicios integrados antes de 1 año"

Ente público: define el 80% (igual medida, considero los materiales) y calidad y el restante (cuando) 20 la mano de obra. Avances: sí/no, ajuste al presupuesto de decisión

Figure 27: Use of AI in choosing mode for the SCA+UA workshop. (source: By Author)

1. Write a context and explain that it must wait until you tell it when to start:

“Same Text from template A”

2. In this case, each group must make the question and share a photo of the selected scheme.

Considering the actor _____, their responsibilities _____, and objectives _____, I need a list of possible uncertainties when making a decision (as if you were the actor). These uncertainties must be related to UE (working environment), UR (related decisions), UV (values/objectives), and UD (disruptive events).

Prioritizing options related to Urban Acupuncture: Such as tactical urbanism, community collaboration, working on neighborhood identity and belonging.

I need the description, type of uncertainty, possible resolutions or steps to resolve/reduce the uncertainty, and which of the following comparison areas _____ could help resolve it.

Use these 1-5 ranges based on the scheme in the photo: [PHOTO LINK WITH UA SCHEME]

1. Write a context and explain that it must wait until you tell it when to start:

“Same Text from template A”

2. State what is being sought and the limits of what we need the assistant to answer, so that it does not start inventing; in this case, each group should ask the question and share a photo of the selected diagram.

Considering actor _____, their responsibilities _____ and objectives _____, I need a list of possible uncertainties when making a decision (as this actor); these uncertainties must be related to UE (working environment), UR (related decisions), UV (values/objectives) and UD (about disruptive events). I need the description, to know what type of uncertainty it is and what possible solutions or steps to follow could be to resolve or reduce the uncertainty, which areas of comparison _____ could help us solve it, prioritizing options related to Urban Acupuncture: such as tactical urbanism, collaboration with the community, working on the identity and sense of belonging of the neighbors. Use as an example the following project _____ (you can use examples from this article).

Surveys

Survey 1 – Perceived Usefulness of the Workshop

Survey 1 evaluates how useful participants found the SCA decision-making workshop and how it affected the quality of the process. It follows the user-based approach proposed by Lami and Tavella (2019), which assesses outcome quality from the perspective of the people involved in the process. The survey focuses on procedural rationality: whether the tools helped participants communicate better, reach shared understandings, and deal with the complexity of the problem. This information is essential to show that the Strategic Choice Approach worked effectively as a Problem Structuring Method during the sessions. See Appendix G.

Survey 2 – Analysis of the Decision Process

Survey 2 looks in detail at how the Strategic Choice Approach operated during the workshop. It is structured around the four SCA modes—Shaping, Designing, Comparing and Choosing—and the four types of uncertainty: Environment (UE), Related Decisions (UR), Guiding Values (UV) and Disruptive Events (UD). The aim is to reconstruct the “audit trail” of decisions (Franco, 2013), a key element of the Commitment Package, and to identify when and how these decisions were translated into Urban Acupuncture “pinpricks”: small, strategic interventions designed to address specific uncertainties in the corridor. See Appendix H.

Table 11.
Overview of Survey 1 and Survey 2 Designs

Feature	Survey 1: General Utility	Survey 2: Detailed Thesis Research
Primary Scope	Pedagogical reception and perceived usefulness of the tools.	Operationalization of SCA and UA for the instructor's thesis data.
Timing	Administered during or immediately after each SCA session.	Administered at the delivery of the final projects.
Key Metric	Systemic clarity: whether the method helped understand the problem as a "whole".	Uncertainty management: identifying UE, UR, UV, and UD factors. Clarify some points from each SCA process.
Conceptual Goal	Assessing emotional/cognitive impact.	Capturing tendencies and moments where SCA leads to UA applications.
Process Focus	Feedback on interaction and communication within the group.	Assesment of incremental commitments and contingency planning.

Note. Table created by the author to contrast the pedagogical evaluation survey (Survey 1) with the research-focused survey (Survey 2) used to analyse the Strategic Choice Approach (SCA) and Urban Acupuncture (UA) applications.

4_4. Socialization

Stakeholder Validation Process

The workshops at universities Javeriana and San Buenaventura, which apply the SCA framework to the Calle 25 study area, produce detailed decision areas, option matrices, comparative evaluations of development schemes, preliminary mappings of key uncertainty dimensions, and draft commitment packages that link short-term actions with longer-term strategies.

Building on these results, **Phase 6 integrates stakeholder validation interviews into the research design as the final step of the quasi-experimental cycle.** The workshop outputs, SCA application process, and deliveries are presented to real decision-makers and stakeholders in order **to test the feasibility and alignment of student-generated schemes within institutional, financial, and political constraints; identify tacit uncertainties not visible in student workshops, such as political continuity concerns, funding changes, and bureaucratic constraints; validate the SCA + UA methodology by confirming that the systematic approach produces insights recognized as legitimate and useful by planning professionals; and refine the commitment package by integrating stakeholder feedback into the final phasing strategy.**

This validation phase establishes the “*credibility, dependability, and confirmability*” of findings by confronting student workshop deliverables with institutional, technical, and financial constraints defined by stakeholders in Green Corridor implementation. Serving as a constructive dialogue between pedagogical

design thinking and professional realities, it draws on established methods of validation, triangulation, and peer review. The research adopts a multi-method framework, synthesizing approaches from leading PSM scholars to systematically assess the feasibility, alignment, and robustness of workshop outputs.

Lami and Tavella (2019) propose an exploratory, quasi-experimental design that combines quantitative and qualitative methods to strengthen the reliability of workshop outcomes. Their approach uses standardized questionnaires (adapted from Midgley et al., 2013) to measure participants’ perceptions, supported by retesting phases to ensure data stability. They emphasize **reflective discussions with external stakeholders**—such as building owners, architects, or experts—to qualitatively assess feasibility and results. Franco (2013) adds a **triangulation process combining semi-structured interviews, intervention documents, and recordings, with findings peer-reviewed by colleagues and co-facilitators**

Rouwette (2011) stresses comparing questionnaires with interviews, as the former standardize measures of consensus while the latter capture participants’ own terms. Workshop artefacts like **decision graphs and commitment packages help validate “invisible products”** such as shifts in understanding, perspective alignment, and trust. Friend and Hickling (2005) recommend end-of-session sharing and surveys to assess long-term impact, while Burger, White, and Yearworth (2019) note that

workshops themselves often serve as triangulation tools, validating findings when outputs are shared with external stakeholders

The validation process consists of two integrated analytical parts: Comparison (confronting student proposals against TCV project objectives and initial uncertainties) and Peer Review (structured stakeholder validation interviews).

Part 1: Comparison.

The first analytical phase systematically compares student proposals against strategic objectives and uncertainties documented in initial stakeholder interviews and institutional documents. This comparison assesses:

1. **Alignment with TCV Objectives**, whether proposals address Functional and Mobility, Socio-economic and Urban Renewal, and Environmental and Safety objectives;
2. **Uncertainty Management**, how effectively proposals address the four uncertainty types (UE, UR, UV, UD) in the Lami & Tavella (2019) framework;
3. **Divergences and Gaps**, where student proposals diverge from institutional constraints or fail to address critical uncertainties. Thematic content analysis identifies patterns across stakeholder role types (Alcaldfia, Desarrollador, JAC) and workshop sessions.

Part 2: Peer Review.

The second phase employs semi-structured validation interviews with professional stakeholders who were not involved in student workshops. Interviews follow a standardized four-phase protocol: Context Setting (≈ 10 minutes) presenting SCA methodology and pedagogical objectives; Proposals Review (≈ 15 minutes) presenting student outputs by role and session; Thematic Deepening (≈ 20 minutes) with fol-

low-up questions on infrastructure feasibility, land liberation timelines, uncertainty management, and Urban Acupuncture alignment; and Synthesis and Recommendations (≈ 10 minutes) identifying convergences, divergences, and methodological improvements.

The second part focuses on stakeholder selection: interviewees are recruited through purposive sampling to include institutional actors with direct project involvement, those who coordinate across governmental levels (multi-scalar perspective), stakeholders offering continuity across political cycles, and a diverse set of institutions (design, government planning, implementation entities, regional coordination), with particular emphasis on individuals who have already participated in a previous meeting and are therefore more fully contextualized.

Finally, data collection mirrors the previous processes: interviews are audio-recorded with participant consent, captured through field notes, and enriched with workshop output documents that stakeholders directly reference and critique. The resulting material is analyzed using thematic coding to identify feasibility, alignment, constraint, and uncertainty themes, as well as emergent new uncertainties. Triangulation across stakeholder roles is then used to distinguish consensus points (constraints acknowledged by all), tension points (value conflicts requiring negotiation), and gaps (issues not addressed in student work).

5. THE APPLICATION

This Phase presents the application of the Strategic Choice Approach in three university workshop settings, tracing how architecture students in Cali engaged with the Green Corridor case and translated uncertainty into strategic options and Urban Acupuncture interventions.

The following sections move sequentially through each group—Javeriana, San Buenaventura Group A (Monday), and San Buenaventura Group b (Wednesday)—describing how participants interpreted the study area, framed decision problems, generated and compared schemes, and began to assemble commitment packages under time and information constraints.

By documenting these processes in detail, the chapter provides the empirical basis for later analysis of how different methodological framings, particularly the explicit or implicit integration of Urban Acupuncture, shaped the handling of UE, UR, UV and UD uncertainties and the kinds of interventions envisioned for Calle 25 between carrera 39-42.

5_1. THE PILOT

Workshop at Javeriana Cali

A pilot workshop was conducted at the Pontificia Universidad Javeriana with a small group of 9 architecture students from the 6th and 7th semester, within the course “**Ciudad, Región y Territorio**” coordinated by Prof. Bustos. Across three sessions, the students worked on the same urban case study: the Green Corridor in Cali, focusing specifically on the selected Calle 25 segment. The fluctuation in the number of participants is related to the format of the initial sessions. The first meeting of the application (session s02) was held virtually, and only five students were able to connect. For the following sessions, the workshop shifted to an on-site format, which allowed more students to attend.

With no further explanations, this preliminary exercise had three main aims:

First, to test the Strategic Choice Approach in a Spanish-language classroom environment, revealing practical issues such as navigation of the digital collaboration platform, time management across modes, and patterns of student engagement.

Second, to allow refinement of the research protocol, leading to simplified visual instructions for decision graphics, a compressed yet still introductory use of the Choosing mode to fit session length, and the incorporation of role-play elements to make stakeholder positions more tangible.

Third, to generate early empirical material

on how students, without any explicit reference to Urban Acupuncture, identify and describe the four types of uncertainty—Environment (UE), Related Decisions (UR), Guiding Values (UV), and Disruptive Events (UD)—when confronted with the complexities of the Cali context.

In Session 1, students were introduced to the core SCA ideas through metaphors, short explanations, and collective reflection on the Green Corridor case, establishing a shared understanding of the focal problem. **Session 2 and 3** then guided the group through the Shaping, Designing, and initial Comparing/Choosing modes, during which participants produced decision graphs, option lists, and preliminary schemes that were documented through screen captures and brief discussion notes for later.

In addition to the work developed specifically for the SCA workshops, the Javeriana group had produced a series of prior assignments within the course “Ciudad, Región y Territorio”, including analyses of equipment systems, QGIS-based maps, and detailed territorial readings of the Calle 25 sector. These materials functioned as contextual input, enriching the understanding of the corridor’s urban dynamics without constituting the main focus of the research, which are referenced in section 4_2.b.

Session 1 - context

September 25th, 2025 - 1 hour
On-site (9 participants)

s01 1-3 (8min): The session began with a brief introduction to the topic and the facilitator, including a request for permission to record the meetings. Once the presentation was set up, the first few minutes were used to help students connect to the online platform, and only then the session formally started.

From the beginning, it was highlighted that, decision-making is central challenge in complex projects, emphasizing that in architecture and urban planning *“There are lots of variables, there’s no wrong answer, nor a perfectly right one,”* and that every choice pushes the project in a different direction. This underscored that strategic choices rarely have perfect solutions because multiple variables and interdependent factors are always involved.

Ideally, this framework would be tied directly to students’ ongoing project for this class, and they were urged to relate the concepts from the workshop to their own livelihoods and ongoing projects *“Everything that is explained here could be cross-referenced with any project or atelier you are currently developing”*, similarly to life-changing decisions that were taken previously, like choosing their career or emphasis in the final semesters of architecture.

“Because at first, well, almost everyone, the majority, when they start the degree, chooses bioclimatics. But from around third semester I was already thinking, ‘Could it be...?’ because I’m more, let’s say, drawn towards topics like... I really like public space and so on, and towards that kind of theme, I don’t know how to explain it.” (student’ comment on their way to decide their emphasis)

The evolution of the “two pills from The Matrix” visual was used to illustrate that decision-making often appears as a choice between favorable options. However, in architecture and planning, decisions extend far beyond simple binaries. They require navigating multiple variables where no single correct answer exists, several solutions may coexist, and each carries distinct trade-offs. This perspective helped students recognize that strategic decision-making is not about finding a perfect solution, but about making informed, contextual choices. In doing so, the examples reinforced the idea that strategic choice is deeply intertwined with lived experience and professional practice.

Right after, began the introduction of Planning Under Pressure concepts by a metaphor of figure 1 (Friend & Hickling, 2005, p.2). where the illustration shows a boat in a difficult sea.

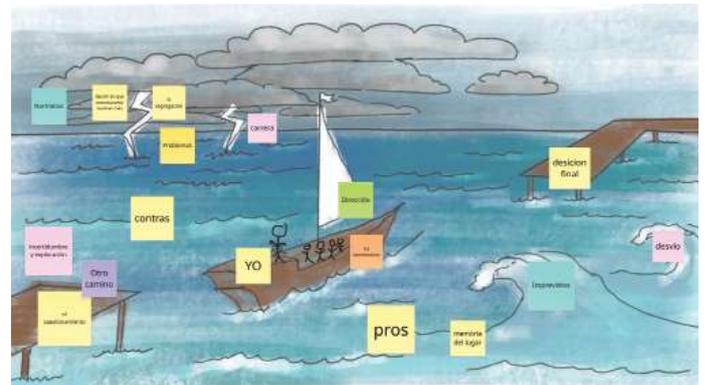


Figure 28: Annotated Ship in the storm illustration (source: PUJ collab)

s01 4 (6min): With this activity, the workshop shifted to examining potential pitfalls in decision-making, with students identifying elements of the illustration that represented these challenges:

Facilitator: *What do the different elements represent for you? the boat, the sail, the second port, the sea it is in, the waves that might knock it over, or the coming storm that could be dangerous? I'm inviting you all to do the exercise. Let's say two or three minutes. Just place your ideas where you think it fits.*

...

I saw someone wrote 'ME' on the boat, and a storm. Why did you put 'me' on the boat?

Student: *Because I felt identified with it. Because, typically, situations come up where you have to decide: the storm is about to start, the waves are there, and you don't know if you should go back or keep going. That's how I understand it.*

Then the conversations follows with questions about the meaning the participants would give to other parts of the illustration **the starting port, the sea, the sail, or symbols like a degree, lightning, or waves.** It then shifts toward identifying problems: **not just broad challenges, but specific issues that arise in decision-making.** Using the example of beginning a project, participants are asked to reflect on the typical problems they encounter and write them down, emphasizing the importance of recognizing concrete obstacles in the decision-making process.

Facilitator: *Now there are more people on the boat. So who would those people be, the ones who are also on the boat?*

Student: *It could be that, since we're assuming we're doing a project, they are the community, the people who are going to use it.*

On this metaphor image (fig. 28), students used post-its to label elements of the journey from an initial decision to a final outcome.

Starting pier (left side):

- "questioning" and "another path" suggest alternative starting points or doubts before committing.
- "uncertainty and exploration" shows the initial ambiguity of the process.

•

Storm area and sky (top left/middle):

- "Regulations", "deciding which structuring aspect to prioritize", "segregation", and "Problems" are placed in the clouds/lightning, representing external pressures and structural conflicts.
- "career" appears near the storm, linking personal life decisions to these pressures.

•

Sea near the starting side (middle-left):

- "Cons" is in the water nearer the origin, showing perceived disadvantages or obstacles early in the journey.

•

Boat and its occupants (center):

- "YO" (me) is on the boat, indicating the decision-maker.
- "the beneficiaries" is also on the boat with stick figures, representing people affected by the project.
- "Direction" is on the sail, symbolizing guidance or chosen course.

Sea toward the middle/right:

- "pros" is in the water closer to the destination, suggesting advantages seen as one advances.
- "memory of the place" is nearby, connecting contextual/site knowledge to the ongoing journey.
- "unexpected events" is on a wave, showing unforeseen issues that can disrupt the path.
- "detour" is on a small wave near the right, indicating possible deviations from the planned route.

- Destination pier (right side):
- "final decision" is on the dock, representing the outcome or chosen option once the journey through variables, pressures, pros and cons is complete.

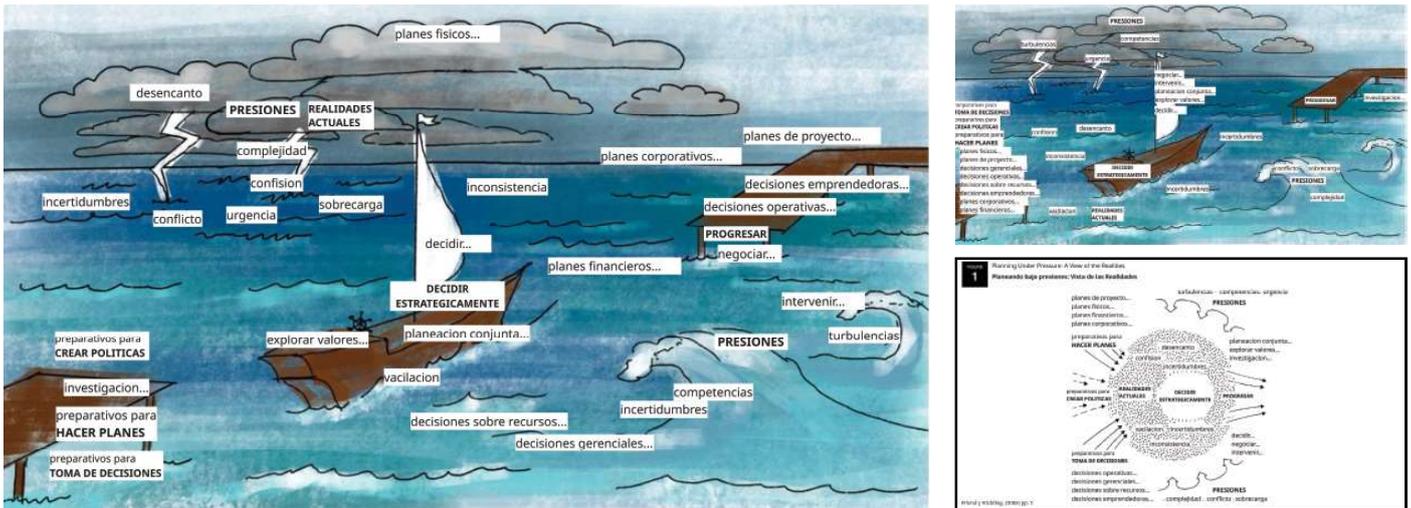


Figure 29: Puj reorganization of the concepts from fig. 1 on the ship illustration (left image; source: Puj collab) Author's interpretation and original (right image; Adapted from Friend & Hickling (2005) Fig. 1).

s01 5-6 (8min): The diagram, adapted from Friend and Hickling's Figure 1 (2005), is used to introduce an exercise in which participants rearrange core decision-making concepts, working directly with the book's terminology as the elements to be organised in the illustration (fig. 29).

Facilitator: Why did you choose these specific places? For those who put "preparations" and "research" at the starting pier: why did you place them there?

Student: Because that's where the boat sets off, where you yourself begin. It's like: "Okay, I have to make this decision," so you start doing research, as we said—making a list of pros and cons, getting ready for the project, thinking about what you'll need. Maybe

you'll need a site analysis, so: what do I need in order to have that site analysis? And so on.

Facilitator: And now, let's go back to what would be the other port. Why did you place "Operational Decisions" there?

Student: Because after doing joint planning, we already talked about how we categorize decisions. Then we define where we are going to focus, on different structuring aspects of the project. When you reach the other port, it's like you are already making progress and moving forward in that direction. Once you've decided which branch or path to take, other decisions appear, which are like sub-decisions that are more specific. It's like a light at the end of the tunnel—but then there's another tunnel after it.

Together, the facilitator's questions and the student's reflections converge on a shared conclusion: **Strategic decision-making is like navigating a boat through a stormy sea of uncertainty, where inconsistency and hesitation are inevitable because the future is unknown.** In this context, every choice carries unresolved questions about outcomes, demand, and long-term relevance.

Beyond the decision itself, additional pressures such as complexity, conflict, overload, turbulence, urgency, and cost constraints constantly weigh on the process. Taken as a whole, the exercise shows that making decisions is never about achieving perfect certainty, but about moving forward despite doubts, aware of the many forces that shape both risks and possibilities.

s01 7 (2min): During this part of the session, the idea of balances in strategic decision-making was introduced, explaining that choosing a course of action is less about finding a single optimal path and more about weighing trade-offs along several dimensions. While *"we are making a decision, we are constantly exercising balance judgments"*, across different strategic choices.

This part of the session framed decision-making as balancing between alternatives along five dimensions rather than choosing a single "best" option. Scope can be narrow and focused or broad and systemic; complexity can be simplified or made richer and multi-step. Conflict may be handled quickly and reactively or through slower, more interactive engagement with others. Uncertainty can be reduced by focusing on selected factors or deliberately kept open to accommodate many concerns. Progress can stay exploratory, testing options, or become decisive, committing at each step.

Students were urged to relate these balances to their own projects by prioritizing key program elements, adjusting design complexity to context and feasibility, and choosing between fast internal choices or participatory processes with stakeholders. Overall, the discussion stressed that the "right" balance depends on phase, priorities, and conditions, and that strategic choice means moving along these spectrums consciously rather than seeking one fixed correct answer.

s01 8 (3min): The workshop outlined three types of problems that require different decision-making approaches, drawing from planning theory (Rittel & Webber, 1973; Grint, 2005).

Facilitator: *And now we move on to types of problems. So, what do you imagine 'tame problems' might be? If you want, you can write it down or say it aloud. We'll go from smaller to larger, right? What comes to mind when you hear 'tame problems'?*

Student: *Something like issues that have already happened to other people, and you can turn to those existing solutions to solve the problem.*

Facilitator: *Exactly. Now, what do you think 'critical' would be?*

Student: *Problems that make me anxious, that I don't want to think about right now.*

Facilitator: *Right, but if you leave them unsolved, they might become much more problematic and have many more consequences.*

The idea of 'critical' here is that these are typical everyday problems where we already know the likely course of action or solution, but we have to decide now. We have to make a decision in this moment. For example, my car breaks down, but I have to get to a very important interview. I have

to decide what I'm going to do: call a tow truck, leave someone in charge of the car, figure out how I'm going to get there. These are things that must be resolved instantly. If you don't, there will be more repercussions along the way: if you don't make it to the interview, you won't get the job; if you leave the car abandoned, it might get stolen. So that's the kind of problem where we need to decide right away.

And then we also have 'wicked' problems. These are problems where there is no correct solution. Any of the options can be good or positive, or not so good, because it depends on the decision and the opinion of each actor involved. Maybe you've done exercises like this: 'Okay, let's imagine I'm the community and I want this park. I want the whole park to be built, to make it really nice,' and so on. But then the person who has the money comes in and says, 'Why would I build a park if it won't generate any income for me?' So again, it's something where there isn't a single right answer.

s01 9-10 (11min): In the workshop, uncertainty was presented not as a single problem to be "eliminated" but as four distinct types, each calling for different ways of managing it (Friend & Hickling, 2005; Lami & Todella, 2019), which students actively connected to their own projects.

In the next workshop, the group will work more directly on decision-making by focusing on four kinds of uncertainty. **Guiding values (UV)** refer to the values and priorities that shape a decision: what is really preferred in a proposal and what the true objectives are. When people feel stuck, it is often because these goals and values have not been clearly defined.

Related decisions (UR) are uncertainties that come from coordination. They appear when many different people, needs, and constraints

must be aligned—for example, dealing with mobility, children, older adults, or multiple stakeholders at once. The challenge here is not a single choice, but how all the necessary decisions fit together and are organized collectively.

The work environment (UE) concerns uncertainty about context and information. Here the question is whether there is enough data to know if a project will function as expected: how many users it might have, how they will behave, and whether essential conditions are in place. These issues can seem simple, but gathering the relevant information often takes time and extra research.

Finally, **disruptive events (UD)** are unexpected situations that break normal routines, such as a pandemic, a water cut, or a road closure. They cannot be fully predicted, but they can be prepared for by designing protocols, listing possible scenarios, and planning quick responses. The aim is to have at least a basic strategy for how to act if an extreme situation occurs, rather than improvising from zero.

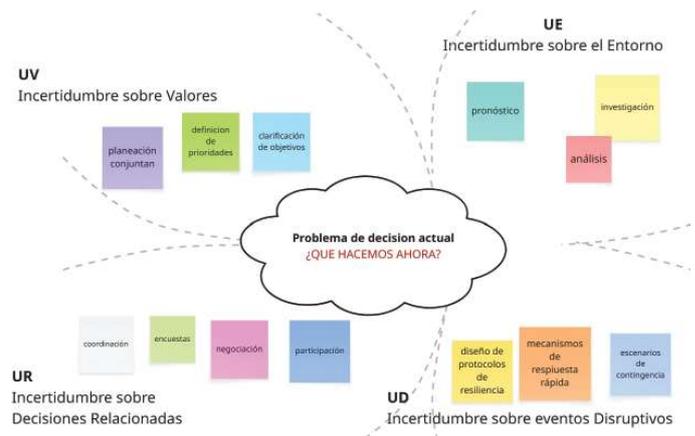


Figure 30. Reorganization of s01_10: *Acting urban uncertainty with the strategic choice approach: the introduction of disruptive events* (source: Adapted from Basado Lami y Todella, 2019, figure 4; PUJ collab)

After this explanation, participants were asked to reposition the post-its from the slide 10 within the four uncertainty categories and add new ones, which opened a discussion on uncertainty and disruptive events (fig. 30). The explanation stressed the importance of resilience protocols, rapid-response mechanisms, and contingency plans, since fresh disruptions can intensify existing problems; design protocol was framed as preparatory work, supported by forecasting, analysis, and research to deal with environmental uncertainty.

To handle these uncertainties and clarify objectives, they discussed revising policies, making goals explicit, meeting to ask “What do we want to do?”, ordering design priorities, and involving more people to broaden perspectives.

Gathering additional information—through research, on-site interviews, and behavior mapping rather than relying only on official statistics—was presented as another key strategy. Forecasting was explored through “what if...?” questions (for instance, imagining new transport systems or fuel shortages) to anticipate possible futures and responses. For related decisions, participants considered when negotiation, agenda expansion, or including more actors is needed so that different interests can be aligned during the decision process.

s01 11-12 (2min): The rocket metaphor reinforces the time-based view of uncertainty already captured in Lami & Todella (2019), figure 4: we start with a current decision problem surrounded by uncertainties, and as time passes these uncertainties evolve, are partially resolved, and in turn reshape the problem itself. Like a rocket launched toward a destination, a project may initially follow a clear trajectory, but

“meteorites” in the form of new events or information can destroy the original plan, forcing the use of an escape capsule—alternative paths, backup options, and revised goals. Rather than letting the project “die,” these disruptions can generate new perspectives, options, and understandings that were not visible before.

Students’ everyday and project decisions illustrate this dynamic. In the “Día sin Carro” (car-free day) scenario, their conditional reasoning—choosing between bus, BRT, taxi, bicycle, or rescheduling depending on reliability, urgency, or cost—resembles moving through the diagram, continually adjusting routes instead of following a fixed plan. Likewise, when working on mixed-use buildings, facilities, or the Green Corridor, they begin by framing an initial problem, then identify and work through gaps in **values (UV)**, **coordination (UR)**, **information (UE)**, and **resilience (UD)**. Over time, as they clarify objectives, negotiate with stakeholders, gather data, and imagine contingencies, both the problem and the available options are refined, showing how managing uncertainties step by step opens some paths forward while closing others.

s01 13 (12min): In discussing how they make decisions in their current projects, students were asked to examine different possibilities, evaluating consequences, and imagining “what if” scenarios (for example, how they would reach the university on a car-free day or how to handle schedule changes), rather than assuming a single fixed path (see figure 31).

When working on mixed-use buildings or facilities, they usually extend this logic by looking at nearby uses, analyzing the site, and studying references from other projects, then adapting these precedents to local conditions. They gen-

erate several program variants—cinema, gym, exhibition spaces, workshops, sports areas, conference rooms—and refine them by prioritizing needs, checking available floor area, and ensuring that visible services are supported by backstage functions like rehearsal rooms or dressing rooms.

Students explained that they “*decide depending on the vocation*” of the place: clarifying whether a facility is primarily ecological, educational, cultural, or recreational, then selecting and ranking program elements accordingly so they align with the site’s role.



Figure 31. Comments on how “I take a decision” (source: PUJ collab)

Evaluating the different possibilities; Nearby current uses; That it is complementary to what already exists; Site analysis; References; Analyzing context and nearby influences; Prioritizing needs; Context and what is useful; Depending on the site’s vocation / intended role.

A similar approach is applied to the Green Corridor, where they define parameters, weigh ecological versus social priorities, and balance preservation with transformation, while also considering participation and property-rights tensions. In all these cases, they effectively build a step-by-step matrix of options and consequences, showing that their everyday and proj-

ect decisions already follow a strategic pattern: mapping possibilities, anticipating what could happen next, and choosing paths that remain adaptable under uncertainty.

s01 13 (8min): The session closed by contrasting regular, linear decision-making with the Strategic Choice Approach, which works with multiple problem inputs and possible outputs. Students were then asked to enter an organization phase: listing key problems in their projects, making values and priorities explicit, and noting uncertainties—missing information, unclear objectives, needed coordination, or potential disruptive events in the farms or the Green Corridor—to prepare for faster, more focused work in the next meeting.

They were encouraged to repeat the boat exercise at home, but with one concrete, manageable problem, refining it step by step instead of trying to solve everything at once. This responded to past group experiences where, without a structure, projects turned into ego battles and ideas were alternately discarded rather than combined. Within the strategic frame, students are invited to map decision areas and dependencies, rank shared values such as heritage, equity, sustainability, or economic viability, and compare several alternatives instead of locking into a single “best” option.

The rocket metaphor summed up the mindset: when “meteorites” like budget cuts or new regulations hit, a strategic approach functions like an escape capsule, redirecting the project while keeping the mission alive. Decision-making, they were reminded, is less about finding a perfect answer and more about anticipating possible futures, mapping options and trade-offs, and acting with contingencies in mind to make informed, resilient choices under pressure.

Session 2 - Shaping and Designing

October 9th, 2025 - 2 hours
Virtual (5 participants)

s02_1-6. (14min): The second workshop session began with a brief reminder of the previous session's concepts and a shared recap of the intervention site, before moving directly into applying the Strategic Choice Approach to students' real projects.

For this class, the site introduction served only as a brief reminder of the surrounding areas, zones, and key landmarks, since students had already conducted their own investigation. In the case of the green corridor between Carreras 42 and 39 in Cali, close to the Mariano Ramos sports center and the Galería Santa Elena; the location involves a territory defined by government-owned land that is officially public yet currently occupied or invaded. This area, characterized by mixed land uses and significant commercial and recreational pressures, is also envisioned as part of future green-corridor and transit infrastructure, offering a complex context for analysis and design.

Facilitator, s01_3: *We'll keep coming back to this little map. Very quickly: *Brief description of s01_3: Figure 18 "South Side: Some Local Orientation" (Friend and Hickling, 2005)* ...The idea is that, throughout the exercise, we will think in a similar way, because in architecture and urbanism decision areas are always diagrammed. This is just a simple example.*

s01_4-6: *I also prepared a small sketch. I don't know exactly which base you're using or how you want to work—that's completely open—but it helps to have this image as a reference. As we discussed with the professor, we were going to work between streets 42 and 39 of the Green Corridor. Is that right, or will it extend a bit more toward Mariano Ramos?*

Student: *(confirms / says it extends a bit).*

Facilitator: *Okay. So we're dealing with this whole area, close to the Santa Elena market and the Mariano Ramos sports center. It doesn't yet have a project that really drives it, so the idea is to see what problems are still present in this zone. As you can see, this is supposed to be a green corridor—public land owned by the government, not private plots—but the whole strip is completely occupied. That's one of the problems we have right now.*

Afterward, the facilitator introduced the next exercise by explaining how to map decision areas for the Green Corridor. Students were asked first to define, individually, which role they wanted to assume—such as resident, planner, merchant, or investor—and were given full freedom to choose the perspective with which they most identified. From that chosen role, they were invited to worry about and articulate the decisions, options, values, and uncertainties that character would face.

Facilitator: *For example, who would like to think as the citizens living there? We have people living along the sides of the corridor, but also the people who will be relocated from the area they occupied. One of you could represent that community. Another could represent planning; We can also have someone in charge of transport.*

It's basically a role-playing game: you put yourselves in the position of these characters and, from there, you make decisions or advocate for a particular problem or decision in the area."

"So, who will be the resident of the sector? And by that I mean it could be split in two—the people along the corridor and the informal settlers—or you can keep them together as 'resident of the sec-



Figure 32. Post-its defining the roles that participants will assume in the PUJ workshop. (source: PUJ collab)

tor'. "What other actor could we have? Maybe a merchant, not only residents.

Facilitator: Nice, merchant is good; the other could be investor, for example.

***Student 1:** writes "planning" on the board.*

***Student 3:** clarifies that as resident on the sides, a regular inhabitant.*

Facilitator: Perfect, better if your name appears there. In planning, are you thinking of transport, regional government, or general?

Facilitator: Okay, investor. Now we have the five of us. From now on, in this exercise, keep your role in mind. Let all the decisions and comments you make be from that perspective. And if you want to keep talking, feel free to leave your microphones open.

Student 1: General.

Facilitator: So we have an investor and planning.

Student 3 and 4: Merchant.

The following table shows the defined roles and members in the PUJ workshop.

Table 12:
Roles and members in PUJ workshop

Role	Members	# Of People
Habitante del sector (Sector Resident)	YVC	1
Planeación (Planning)	SC	1
Comerciante (Merchant)	EP	1
Inversor (Investor)	GL, SO	2 (originally 1, later merged)

Note: Presents the composition of the role-play group, detailing each role (sector resident, planning, merchant, investor), the corresponding members, and the number of participants per role.

Shaping

s02 8. (18min): The exercise began by defining **Decision Areas** as the specific nodes in the project where a concrete choice must be made, using the green corridor case to move from abstract concerns to clearly formulated questions, focusing on being as descriptive as possible and then define a proper label.

Facilitator: *What are the difficulties these people could be facing? How do we create an image in your head—that idea of who a character is and what they want? If we think about it that way, we can keep moving forward and start putting ourselves in their shoes, trying to advocate for them.*

What decision do you think needs to be made? Think directly about the problems happening in this area. What would your character need?

Student: **Should the new road pass in front of my house without touching my property?* "Is that good?"*

Student: *How would you frame 'I need to free the illegally occupied zone to make room for the commuter train' as a question?*

Facilitator: *Well, it could be 'How do we clear the zone with fewer problems?' Or rather, one of the things the commuter train project needs is for that whole area to be completely empty when construction starts. They have a tight schedule.*

So the zone has to be cleared, but in their plans, they're not planning to give housing to illegal occupants—since they don't have legal title (referencing the interview with D. Mazo, oct. 2025). But if they have a small business or selling something in the sector, the idea is to give them compensation for lost income for a certain time. But then they'll be removed and won't get anything for the house, since they don't legally own it.

Regarding the concern on squatters or 'illegal' residents in the right of way,

Facilitator: *So the question could be: 'How do we relocate those occupying illegally?' It might be a very broad problem, but we can look at it more later. It's good to have a generalized area, a broad question, so you keep it in mind: the law. Public goods cannot be appropriated, sold, or traded. They are public-use goods, and railways—remember from the territorial training plan—are part of the nation."*

For investors: Where can I locate my warehouse or new stores, a new commercial hub? So we start asking these kinds of open questions. Also, the zone is susceptible to gentrification, not necessarily just where the project develops. So strategically, the first question for an investor could be: 'Is this corridor investment profitable?' Because if the project has no financial closure, there's no economic viability.

For the resident in the middle: they might ask if they'll be evicted. In that same dynamic be-



Figure 33. PUJ's Fist attempt on Decision Areas (source: PUJ collab)

Facilitator: *Yes, that works. So it's a decision area. Where does the road go? So it's 'Should the road pass in front of my house and not touch it?' Something important: you need to put a question mark, and when you label it later, also use a question mark.*

tween investor and legal resident, there could be tension. Will there be gentrification? For the resident's wellbeing, the question is: Will displacement happen? You could phrase it as 'Will there be displacement due to rising costs with this project?' That's more developed and clearer. Then, in the decision-area box, add a quick label for easy reference and work."

As participants entered into their role-play, taking on perspectives such as resident, planner, investor, shopkeeper, and squatter, they were able to articulate diverse priorities and concerns. As the discussion advanced, additional categories were introduced to provide greater clarity and depth regarding potential areas of decision-making.

Facilitator: *What do you think is the main problem?"*

Student: *Displacement.*

Facilitator: *Okay, displacement. And what I've put here are categories, because honestly, I often struggle to think of more problems or questions, but thinking in categories helps a lot. We can think in terms of **Location:** Where will I locate my new business? Where will my house be if I'm being displaced?; **Mobility:** How close is the nearest train station? I need to get to work; how fast can I move?; **Green space:** I don't have a park to walk my dog or my kids.*

Keep adding more descriptions and decision areas. I'm missing the labels on these decision areas. They're super important for all the exercises. Doesn't matter if you want to color them to look nice—you can change the color later or divide by category with a different color each.

Student: *A new one?*

Facilitator: *Excellent. So what new ones did you put? Financial, Legal Occupation, Displacement. I'll copy that again because now what we have to do is...*

s02 9-10. (18min): Methodologically, was stressed that “everything is related to everything,” but that strategic work requires choosing a **problem focus**, so each Decision Area had to be written as a question, given a fuller descriptive phrase, and then tagged with a short label—for example, the textbook case “Which route should the new arterial road follow across the South Side?” labeled as “ROAD LINE?”—mirroring the students’ own questions about displacement, value capture, illegal occupation, stops spacing, and urban connections in the corridor.

After defining the decision areas for the green corridor, the group moved into linking and focusing, and this turned out to be as important as the list itself.

Facilitator: *We need to draw those connections. For example, we saw that two items had exactly the same label (“social component”), so the idea is to avoid duplicates, because that label will identify the issue we are going to work with later. One question was: “Should the road pass in front of my property without touching my house?” and we clarified it as “Should it pass in front of my house without affecting the houses?” and kept it clearly marked as a decision area.*



Figure 34. Puj's second attempt on Decision Areas (source: Puj collab)

Student: “So the idea is to link these concepts with lines depending on how they’re related, like a kind of network?”

Facilitator: Yes, for example, “distance between stations” can relate to “local commercial transformation – financial,” or not, depending on how you see it from your role. The point is: in your own framework, does this decision area relate to that one? If so, draw the link. Later we’ll reevaluate together whether those links work for everyone, but it’s important to reach a shared idea of how they interrelate.

When students first tried to draw the decision graph by connecting areas they felt were related, the result felt slow, confusing, and visually messy; this led the facilitator and Prof. Bustos to introduce a slide to organize the decision areas around categories such as location, mobility, housing/social, environmental/green, economic/financial, and regulatory/normative, so the same items could be rearranged by type as shown in figure 35.

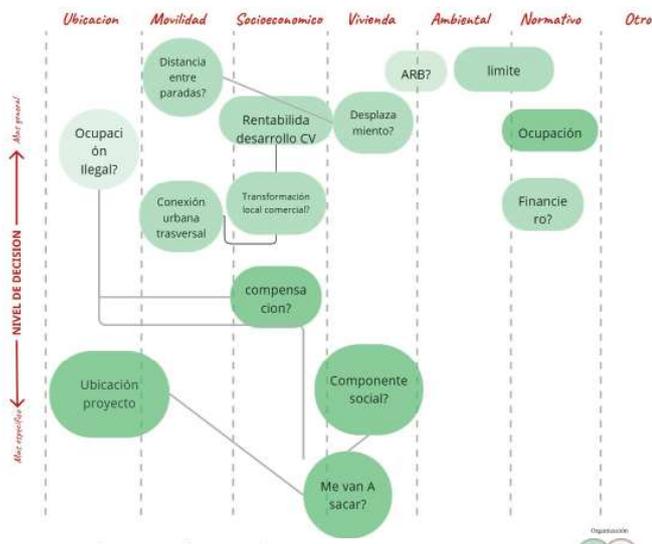


Figure 35: Second attempt on Decision Graph, using Friend & Hickling, (2005), fig. 36 (source: PUJ collab)

Facilitator: If you don’t know how to link them yet, placing them first in the decision category table already tells us something: for instance, that several items are “socio-economic,” and in that sense they are already connected. But they don’t all have to be in that scheme; others can stay uncategorized, as in the earlier diagrams.

I see that someone linked “displacement” to “distance between stops,” which makes sense. New items appeared such as “financial,” “illegal occupation,” “displacement,” etc., and that’s good!

The categories themselves (location, mobility, socio-economic, housing, environmental, regulatory, and others) are very helpful because they express a territorial structure. They let us see that the same decisions can be reorganized in different ways: the earlier scheme differs from the current network, and that’s fine. Often you start without any categories and only later impose an order, and that new order produces new answers.

Prof. Bustos: Its interesting to notice that depending on how you organize your ideas, there are many different variants with the same information, and that goes with everything un life.

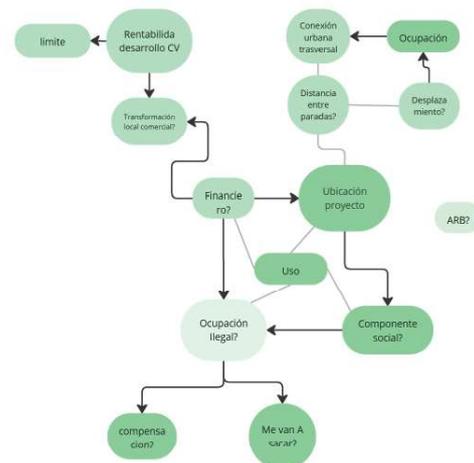


Figure 36: PUJ's Final Decision Graph, (source: PUJ collab)

Once the decision areas were grouped and re-colored (After 4 schemes), the network became more legible, and students could see clusters like displacement tied simultaneously to road routing, commercial location, and housing options, or value capture tied to commercial transformation and investment decisions, prompting the realization that how you categorize and connect variables can completely change how the problem appears even if the underlying list is identical.

s02 11. (15min): Building on this, the flow of the workshop turned to the concept of “problem focus,” asking each person to choose a subset of linked decision areas that seemed most pertinent or urgent—mobility and station spacing, community and relocation, land use and profitability, or environmental measures—so that, instead of trying to solve “everything is related to everything,” each individual concentrated on a coherent cluster, voted individually for the focus they found most important, and prepared to analyze that part of the graph in more depth in later stages, as a comment fo this process:

Facilitator: *The idea now is that we look at this again and see if a few more items can be connected, and then draw boundaries depending on which areas you think could be problem clusters. One of the examples in the reference material shows a kind of legend where we can change line types to indicate whether it's a fixed relationship or a decision that might shift later.*

For instance, here's a decision that occurs very frequently and is very important—that becomes a decision-problem focus. Then there's the double-line example, marking decisions with important consequences. That gives us a sense of where the critical areas are (referencing fig. 40, Friend & Hicling, 2005).

Another interesting example: the same problem focus doesn't have to follow only the thematic clusters we saw at first. You can also group by who makes the decision. Sometimes you have many actors—right now in the Green Corridor, the department government makes certain decisions, the commuter-rail authority decides on mobility matters, and the mayor's office handles social impacts and how to resolve problems generated by these projects. It's useful to underline these distinct focuses and ask: 'Who could be responsible for this?' That would be a very interesting added exercise (referencing fig. 41, Friend & Hicling, 2005)..

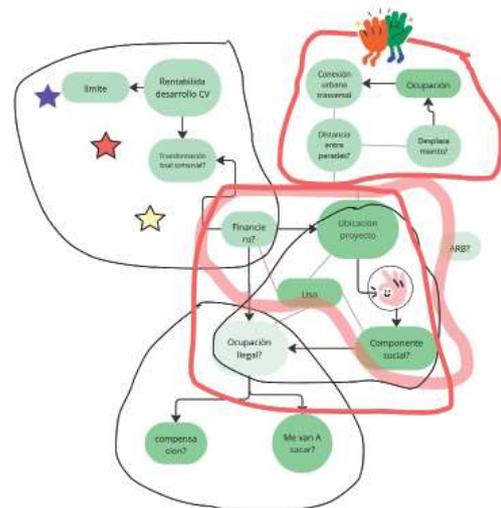


Figure 37: PUJ's Problem Focus and Voting (source: PUJ collab)

In the “circle exercise,” students revise their network of decision areas and literally draw circles around groups of closely related items to define distinct problem focuses. Each circle marks a cluster and helps clarify what is the minimum they must address and which parts need deeper detail.

By comparing clusters, students then choose which focus to work on first: **each person places a sticker on the cluster they consider most important at that moment**, signaling whether

their next analysis should concentrate, for example, on financial viability, on where the project is located, or even on specific environmental issues like the treatment of trees.

Facilitator: *Which cluster would you like to focus on, or which seems most urgent?*

Student: *I'm voting for this one—food.*

Facilitator: *Okay, the star. So Juliet did that, right? Estefanía and Gabriela still need to vote.*

Student: *Are we not being heard? Should we put our symbol?*

Facilitator: *Two are showing; one more is missing. And remember you're still in character.*

Student: *I'm the resident; distance between train stops—that's what I care about.*

Another student: *I'm the resident too, and that doesn't work for me.*

Facilitator: *The point of all this is that in the next part of the workshop we'll focus on one of these clusters as the problem focus. There will be several, but we'll push one forward now. It might be chosen for urgency or for priority. For example, you might start with the big cluster, but once you advance it, you must return to the smaller ones to refine them further for a deeper decision. That's why we do this exercise and why it matters to understand why we choose one focus—so you can replicate the process later.*

Designing

s02 12. (15min): In the second step, once each team had narrowed its problem focus, the workshop moved into designing mode, where students generated options—mutually exclusive courses of action—for each decision area and began to test how these could or could not work together. For the green corridor, this meant defining a small “menu” of strategic moves such as densifying along certain segments, promoting mixed use, or reconverting traditional premises, and then, echoing the South Side example, asking whether they had really captured the full range of possibilities or if additional or more specific options should be added or split out.

Facilitator: *For 'local commercial transformation,' I imagine, for example, creating small stalls in the project so current vendors can have a place. For 'financial,' we go back to the earlier definition—'how to generate value capture near the project'—and now we need to think of several options: build a shopping center, create a recreational center, increase development rights (more height or density), etc. There are many possible ways to address that problem, and our task is to list how many options we can see for each decision area.*

From each role you can think different options. For instance, the investor asks: "What options do I have to generate more income in line with my commercial interests?" and writes those down as options in the matrix.

We then briefly discuss extra options for 'profitability of the Green Corridor development,' such as train cost, job creation, and tools like allowing a landowner to build higher in exchange for dedicating 50% of the plot as public space and giving 10% to the municipality—mechanisms that generate coherent value capture.

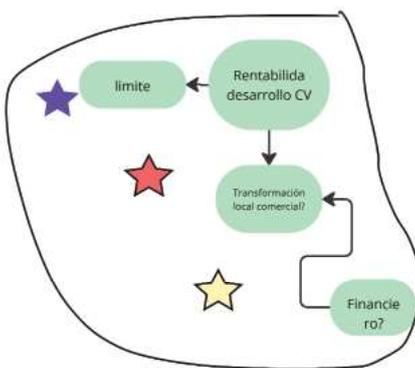


Figure 38: Selected Problem Focus. Note: Voted by 3 (stars) has the relation between (limit?)-(TCV development returns?)-(Transformation of local commerce?)-(finance?)
Source: PUJ collab

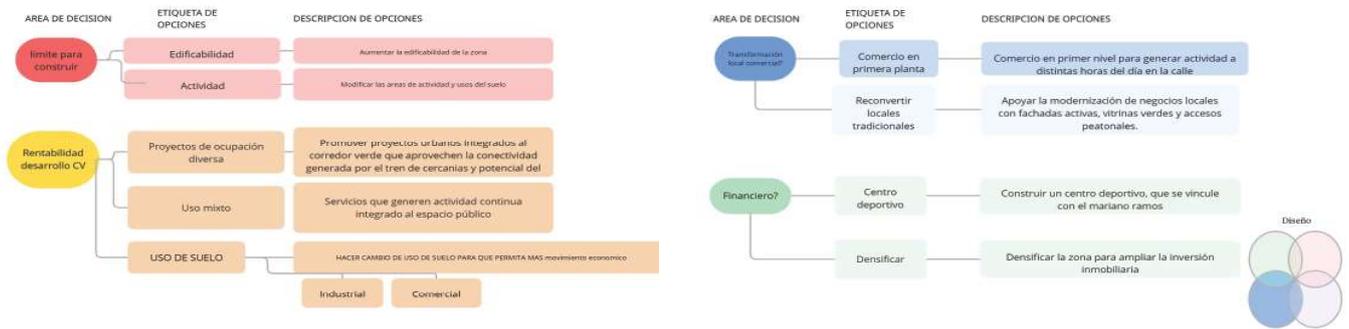


Figure 39: Final option list (translation in Appendix f) (source: PUJ collab)

In the Designing Mode of the workshop, students moved from naming problems to proposing concrete, mutually exclusive options for each chosen Decision Area, shifting from abstract role-play into a structured filtering of urban possibilities through compatibility testing.

For every area they built an option list (figure 39): for land use, options like Industrial, Commercial, or Mixed Use; for profitability and finance, options like Densify (to attract real-estate investment) or build a Sports Center linked to the Mariano Ramos complex; and for green and activity limits, options such as increasing buildability or changing activity zones.

s02 13-14. (15 min): Then it was introduced compatibility tools: option bars and option graphs, to test which options could coexist and which were, like “chocolate on spaghetti”: individually valid but technically, economically, or socially nonsensical in combination.

Facilitator: *We have two ways of comparing options. One is “bar-reduction” (on the left), which represents the idea that some options from different decision areas are incompatible with each other. You make a small table where, for example, you compare ‘shopping-center location’ with ‘route alignment’, or ‘building limits’ with ‘development profitability’. Across the top you list the options from one area, and down the side the*

options from the other area, and in each cell you mark whether that pair is feasible together or not.

So, with the three circles, the idea is to relate which option labels from one area are compatible with which labels from another. For example, ‘densify’ might be compatible with ‘mixed use’. We can choose to focus on compatibility: densification is compatible with greater activity, yes? Then we go through the rest of the options and see which combinations make sense. Sometimes the diagram gets very dense, so some versions only mark incompatibilities, but personally I find it easier first to mark what is compatible.

(7 minutes of worktime)

Student: *Do we have to remove options?*

Facilitator: *No, you don’t have to remove anything.*

We can also add a ‘red’ option where we’re comparing it against the green one, to see, in the matrix, how both sets of options interact. We can bring in the red options as well.

Student: *Quick question—what do the dots mean?*

Facilitator: *Dots mean the pair is compatible; X’s mean it is not compatible. For example, ‘sports center’ with a certain land-use change might be marked as incompatible in this draft.*

Student: *“I wanted to clarify that, because the de-*

scripton of the option says 'land-use changes to allow more commercial and industrial movement', and it also mentions sports uses. So I wasn't sure if that makes it compatible.

Facilitator: It's your judgment. If you feel it's not compatible and want to treat it as purely sports-related, then we can leave it as incompatible. The important part is that there's reasoning behind your choice. I like that you spelled it out.

So yes, it might feel messy now, but the point of these two exercises is to see compatibility between options—how many possible links there are and how strongly options can be combined. You could even create a huge matrix where all decision areas—profitability, transformation, etc.—are compared against each other. That would also show how the system behaves as a whole.

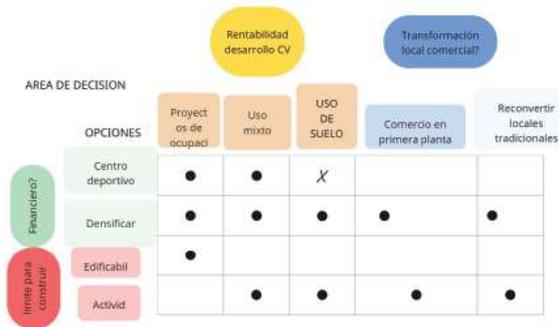


Figure 40: PUJ's Option Bar (translation in Appendix f) (source: PUJ collab)

In role-play, the Investor was pushed to enumerate “how many options” might realistically maximize returns, nudging that character toward higher-density, profit-oriented combinations, while others challenged environmental assumptions; one student joked, “*There won't be trees in my project,*” this was used this not as a throwaway line but as an example of a deliberate design decision that closes some pathways and opens others inside a future decision scheme.

Crucially, each X in figure 40 was treated as a hy-

pothesis—such as “industrial use conflicts with nearby housing” or “open space is incompatible with short-term commercial gain”—that could later be questioned, weakened, or removed on a trial basis, rather than a fixed truth.

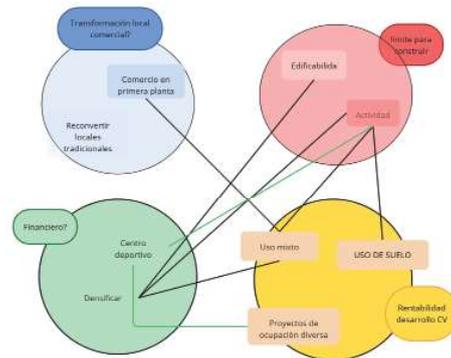


Figure 41: PUJ's Option Graph (translation in Appendix f) (source: PUJ collab)

Once clearly incompatible mixes were eliminated, the remaining option combinations became **decision schemes: coherent scenarios that select one option per decision area and make explicit how a particular blend of route, commercialization, density, and environmental treatment would play out together, helping students see design less as adding features and more as orchestrating clashes and alignments among options to find a viable strategic path.**

s02 15. (18 min): Afterwards, developing the decision matrix/scheme proved strenuous and difficult to complete on the spot. Given the limited time, it was left to be revised later to ensure compatibility for future use.

Facilitator: So, at this point everything probably feels a bit messy, but the point of these two comparison exercises is to see how compatible the options are, how many possible combinations there are and how strongly different options can be linked in what might actually be built.

It's easier to see from here: using the compatibility table, we already know which option pairs are and are not compatible. From that we create a decision table where we list the different decision areas with their options against the others, and from there we start sketching different possible development paths —schemes.

Brief example with Friend & Hicking (2005) figure 17, Decision scheme on s02_15

Facilitator: *If we do that quickly, we will have completed today's full exercise. I hope that made sense—was I clear? No? Okay, then I'll at least lay out the next steps.*

We had 'building limit', 'developability (edificabilidad)', and 'activity' as decision areas; I see we won't manage to resolve them all now. So we'll leave that part to finish next time. Please, if you can, answer the questionnaire I'll send.

Student: *Thanks, profe, bye!*

Facilitator: *Thank you so much for participating; we'll see each other next week in person. You can disconnect now. As preparation, I'll send you this board, and ideally each person can define their objectives as an actor: **What are your values? What do you see as most important to resolve? The next exercises build on uncertainties and on making decisions, and that only works if you're clear about what really matters most among the options.***

You can keep looking at the diagrams we made, finish solving the current issues, and even reorganize the decision areas we generated. If, when you're reviewing, you feel something is missing—something you saw, read, or just thought of—you can add it here, maybe in another color so we notice it later. That would really help give the exercise more realism.

I'll leave this slide here, but the only thing I really

ask for now is that you fill in the form, your feedback is important.

Student: *The form is the QR you showed?*

Facilitator: *Yes, this QR. In case you couldn't access it before, I also sent it in the chat when some of you said you needed to leave. I'm going to finish completing the matrix now so that maybe we can solve it together next time.*

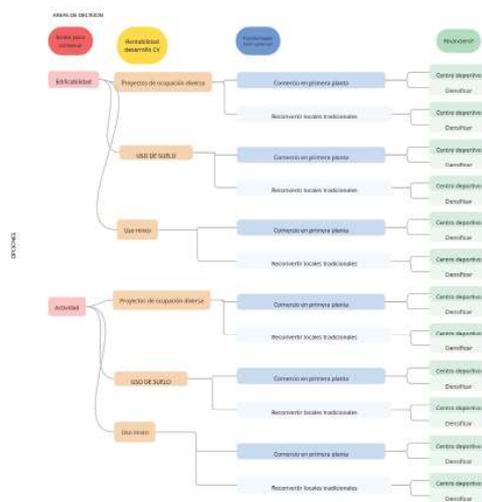


Figure 42: PUJ's Decision Scheme (translation in Appendix f) (source: by author, based on PUJ's collab)

Finally, the survey was presented and homework assigned for the following session. Students were reminded to review the work completed during this class and to begin reflecting on their values and preferences regarding future modes, both in relation to the site and their personal perspectives on its issues. This preparation, together with checking the assigned homework, was considered essential to ensure that forthcoming concepts would not take them by surprise. In the meantime, and with attention to the timing of the next session, the facilitator finalized the decision scheme (figure 42), building on the compatibility demonstrated in the previous diagrams.

Session 3 - Comparing and Choosing October 16th, 2025 - 2h.40min On site (9 participants)

s02 1-15 (25min): It started by briefly revisiting the four SCA modes, noting that shaping and designing work had been done in earlier activities, and that this meeting would concentrate on comparison and decision for the specific case of Calle 25's Green Corridor, where informal occupants on national land were likely to receive only temporary compensation, while Santa Elena's vendors would be reorganized and relocated rather than simply evicted.

The group then returned to the figure 36 (decision graph), which mapped areas such as corridor location, illegal occupation, displacement, commercial transformation, building limits, and corridor profitability, highlighting how links between "Financial?", "Building limit", and "Local commercial transformation" made clear that financial viability depends directly on buildability and retail strategy.

Student: *"Well, I think what we have to define is: what are the variables that define what is material heritage and what is immaterial (intangible) heritage?"*

Facilitator: *Okay, so this is a **decision area**. And now the next point, where we start to see the Design part, is **options**, and options are those different variables you have within a decision area. So you were saying: what are the tangible and intangible ones? So now you can start listing, for example, which are the different intangible elements and which are the tangible ones, so that you can vary them. Right now we have the different labels and also a description to be able to understand what is going on.*

The reorganized graph showed that the same decisions could form different patterns, so stu-

dents focused on a subset—building limits, corridor returns, local commercial transformation, and financial strategy—to tackle choices in parts and avoid paralysis. The facilitator recapped the Designing mode, reviewing drafted options such as buildability vs. activity, mixed use, land-use change, ground-floor commerce, reconversion, sports facilities, and densification.

Revisiting the Option Bar and Graph revealed that many options were still too general, prompting the facilitator to urge sharpening and pruning alternatives so the remaining combinations could serve as clear decision schemes for later evaluation.

Prof. Bustos: *Check whether you would add anything else or not. And, sorry—imagine doing this with your own process as well. We're going to do the others in five minutes, so I'd focused here, but also: **how could this contribute to your projects, or what are the variables you have? Which are the orange ones you're going to analyze, and then how will you use the blue tools we have here?***

Facilitator: *What I did there was fill it completely (referring 42 - decision scheme s02_15). At this moment nothing has been removed because we didn't have time to do it in the last session. What the prof is proposing (and I also think it's very good) is that, if you see the possibility of adding more options so it's a bit more focused now that we have more information and you're more familiar with the exercise, you can do that. But the idea is also to start cutting elements, because each option that remains at the end—each of these green boxes—right now is one scheme.*

Student: *What is needed to have greater 'en familia' (density / family housing)?*

Facilitator: *That might be, for instance, buying more lots. Then we need more money. So we can start thinking: how are we going to finance it? What projects can we do to start moving all this? Clients, money, cash. We can have a very good city, but you have to know how to sell projects well, because it's a project.*

Another way to see it is with an architect I worked with. He would do the whole project from scratch and then, in Bogotá, he would go to all those compensation funds (cajas de compensación), which have to invest in certain social-housing projects. With them he would end up financing the project. He did the entire design, gave them the project proposal, but in the end he also had to look for who could finance it, while doing good architecture in very small spaces, instead of just what the mega-developers are doing now.

Prof. Bustos: *There's an opportunity there, work-wise—thanks for bringing it up. In Paris, for example, the housing secretariat (or rather the subdivision in charge of heritage maintenance) does a whole façade-renovation program.*

They hire small architecture offices to do the designs, and each building works with a different office. That generates many opportunities for small firms, keeping work circulating locally. If we let everything concentrate exclusively in the big real-estate companies, the 'slabs' (projects) are huge, jobs are very hard to get, the stakes are high, and when stakes are very high, ethical lines start to blur, and then bad architecture appears, materials deteriorate, and in the end you aren't just designing, you're also supposed to create other things. Those forms of creating are out there; you just have to look for them and maybe have your own offices and projects.

Facilitator: *We'll put that down below. Do they have to be the same blue options, or can we add another one?*

Student: *The ideal would be to add it to all of them.*

Facilitator: *Sure, Because they're still options within the decision area. Right now this works well, because within this "corner" of the methodology you are adding a new option in the profitability decision area for developing the Green Corridor. Regulation also needs to be considered, and in my view it could itself be defined as another decision area.*

Student: *Would it be putting another one above? Because if 'regulation' has its own options, like a big scheme.*

Facilitator: *I'll put 'area' here, and then in the matrix you can add all the options you can imagine regarding regulation. ...The idea is that these options become much more specific, because the decision areas are like the general frame of decision-making, and the options are more like: 'Ah, I have to choose between this or that,' and sometimes we do these things automatically.*

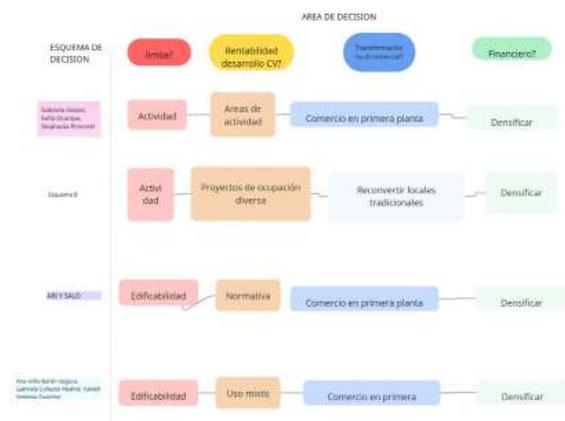


Figure 43: PUI's Schemes to work on in groups (translation in Appendix f) (source: PUI's collab)

After reviewing the schemes, participants were divided into groups, with each group selecting one scheme to focus on (see figure 43). Using this as a basis, they reflected on potential comparison areas and subsequently defined specific criteria through which the selected schemes could be evaluated.

Comparing

s03 16. (35min): Comparison Areas concept was introduced with the South Side example from Friend & Hickling: capital costs, income, local jobs, and residents' confidence, each with labels like CAPITAL, INGRESOS, TRABAJOS, RESIDENTES.

These categories were linked to everyday choices (such as selecting a university degree based on “social life”) and insisted that space-related decisions must also be grounded in explicit value categories like safety, vitality, and beauty, not only in technical standards. Finally, students generated their own comparison categories, (table) which tied back to the original problem of poor connectivity, insecure streets, and weak commercial vitality.

Facilitator: *The comparison areas are the categories by which we are going to compare the options. We have these different option branches, but I don't know if you remember that from the first time I mentioned something like: when you're making a decision, what are those categories or ideals you have in mind to make that decision?*

For example, between architecture and medicine, when choosing a degree. I wanted to study medicine, and I chose architecture because I thought I would sleep and have more social life, meaning those would be categories or comparison areas.

So now we can think of the comparison areas as these different categories. It could be Capital, Sustainability, or Vegetation...; and then we give each a label so we can use them when comparing the different options we have.

Prof. Bustos: *Good, so girls, this goes along with the problem investigation you already have, what have you found in that area?*

Student 1: *In our case, we have: invasion of public space, active commerce in the area—which in the end ends up being insecurity—poor pedestrian and cycling infrastructure, which connects to public transport. Because the general problem we chose was the lack of connectivity; everything is very focused forward. The three main ones are public space, infrastructure, and security.*

Facilitator: *Okay, those are very good to write down. So we have something like **sense of security**: how much sense of security does each option give us? **Then mobility**: how much mobility are we allowing with this idea or the other one? **Invasion of public space**—how we're going to allow, remove, or deal with that invasion.*

Comparison Area Description	Label
Perception of insecurity	INS
Public-private interaction	VIT
Good use of public space	PÚB
Santa Elena Gallery heritage	PAT
Aesthetic quality of public space	EST
Habitability of public space	HAB
Connectivity	CON

Table 13: Translation of PUJ's Comparison areas and their labels (source: PUJ collab)

s03 17. (15min): Basically, for the next steps on the comparing Mode, the selected schemes and comparing areas were of crucial importance because of the use of the AI (ChatGPT in this case) to gather information and ranges for a better relative evaluation of each scheme based on the comparative areas defined by themselves

The activity was settled to be done in groups, each group would have their selected scheme, and by taking a picture of the scheme, of the

comparison areas and adding some evaluation ranges into the prompt, let the IA give the answers needed for the following steps.

Facilitator: *So you describe to me how you asked the question?*

Student AGV: *I put: help me giving results in ranges from 1 to 5 and estimated data of how the densification of the store on the first floor resolves each of the bubbles on the side.*

... So he put this for Perception of insecurity. Result: 4, justification: The constant precision of commerce and pedestrian flow generates natural surveillance, Eyes to the street reducing the feeling of insecurity. Public-private interaction 5: Commerce on the ground floor through a direct relationship between the private, premises, housing and the public (see figure 44, center image).

Facilitator: *So right now you put it there and then we can start comparing it. I'm thinking that you kind of make the comparison with what each small group does,*

Student AGV: *that is, I compare mine with theirs. Let's see how they are doing. Yes, I'm going to do that.*

Facilitator: *If you put the prompt on MIRO it would also help me a lot. All of those like the things that you've been using. All that's been washed to him (ChatGPT).*

...Perfect, great. Yes, also add a mini context if

you are able to in the prompt, The place and the area so that it gives a little more? And to give you estimated data on the improvement. The context is also important. What was missing with the girls over there to put them very well how to make them understand where they are located, what the area is, what the difficulties are.

Prof. Bustos: *The context, to the point that it gave it some designs, it has already given, it is designed. Greater efficiency alone does not guarantee interaction, but combined with trade. But we have to readjust. So, on a scale of 1 to 5, yours is perception and insecurity, right?*

Facilitator: *Well, that's the first perception of insecurity. The first piece trade is carried out.*

Prof. Bustos: *Yes, not commerce, with a stopover. The shop on the first floor. The first-floor store, which is your first variable. So you go in order. The first-floor store is what you're going to do. The ID has nothing to do with the trade on the first floor, it's, but you can put as the next question with that donor 5. The first floor commerce with projections to densify in housing, how does it impact the perception of insecurity, public-private interaction?*

The standard SCA diagrams for relative evaluation (evaluación relativa) were presented with the example from Friend and Hickling (2005): a base scheme A, alternative schemes B–H, and numeric estimates for capital, income, jobs, and resident confidence, drawn from the textbook.



Figure 44: Relative evaluation of each scheme by the groups: GSS, AGV and SA respectively. Note: see appendix f for translation, created by participants using ChatGPT

For the Green Corridor, three decision schemes were assembled from students' options—for example, one scheme combining **buildability, activity zoning, ground-floor commerce, and densification**, and another replacing some of these with **diverse occupation projects or reconverting traditional premises**.

Each group selected one scheme and was asked to estimate, with the help of AI (ChatGPT or their preferred AI), how that scheme would affect each comparison area on a 1–5 scale (figure 44) effectively treating AI as a quick “consultant” given that direct empirical studies were beyond the workshop’s time frame.

The presentation includes detailed AI-generated tables where **ground-floor commerce and densification** are evaluated against variables like **perception of insecurity, public–private interaction, good use of public space, Santa Elena heritage, aesthetics, habitability, and connectivity**, each **with an impact score and associated design elements**.

For example, one group rated **ground-floor commerce highly (5/5) for reducing insecurity and fostering public–private interaction through transparent façades**, lighting, open shop windows, and “eyes on the street.”

They also gave strong scores for habitability and connectivity when paired with wide sidewalks, micro-plazas, shade, and active frontages. Another slide evaluated densifying ground-floor commerce by comparing current and potential values on a 1–5 scale, highlighting strategies like coherent material palettes, heritage-sensitive heights, permeable façades, and integrated pedestrian and cycling networks.

s03 18. (33min): The comparison-of-advantages diagrams were introduced, showing how two schemes (e.g., A vs. B) can be compared qualitatively—despreceivable, marginal, significativo, considerable, extremo—across the same comparison areas.

Students then applied this method to their corridor schemes: one exercise compares an “AGV” scheme (buildability + mixed use + ground-floor commerce + densification) with an “SA” scheme (buildability + normative focus + ground-floor commerce + densification), scoring where each scheme has stronger or weaker advantages.

Individual work from students also compared “GSS” schemes centered on activity areas + ground-floor commerce + densification against the more normative scheme, realising that some schemes strongly favored connectivity and habitability, while others better preserved heritage or minimized conflicts in public-space use.

Facilitator: *If the range goes from 1 to 5, then, let's say, negligible would be one, 5 would be extreme, that the advantage in security perception is high, but then it's not just a point, but it's like a variable, let's say, you put 5, but usually not only 5, but it can also have like a disadvantage, it could be a little less significant, Aha, like the range goes a little further, because it can't necessarily be applicable, we don't know very well if they are really going to feel completely safe, that is, it is something that we have as in perception, but it is not necessarily a point that is so precise, sometimes it is less correct or less incorrect, so it is also cool to have this type of schemas because it gives us a truly broader idea of what is passing within our considerations.*

It's not always as precise, or black and white, but there's always a margin within things and here



Figure 45: Puj's Advantage Comparison of each scheme by the groups comparing GSS-AGV, AGV-SA (PUJ's Collab); GSS-SA (by SA), and GSS-SA (by GSS), respectively (see appendix f for translation).

the advantage is that it's put on one side or the other. So, let's say, if the difference in perception here is 5 in scheme A and here it is 3.5, then this range is more or less significant, if it makes me understood?

Prof. Bustos: *Let's do it, for example, with the perception of security, that is, what gave them a perception of security, which was without a perception of security and among the design elements which one appeared?*

The big map is a perception of security, right? So in the first "moradito" (purple) put open windows for example, and in the one on the other side put... That of the mixed transition.

Those are two ways of comparing two things within the same variable. The variable is perception and security. There are two ways to approach it, I can put either transparent windows or do the Bourbon thing in the businesses we talked about. Within those two, which generates a more important difference, the window or the habitability in the lime?

Facilitator: Yes.

Prof. Bustos: *Here the challenge is that we are great at comparing the general categories that we all have and all use, that's why it was necessary to have the differentiation. That's why I suggested it as if to have differentiation within one, because we can find ourselves in different ways.*

You can compare it because it's more difficult to know specifically that the perception of insecurity is what would estimate the difference.

Facilitator: (talking about the Advantage Comparison graph) *It has more health connectivity than ours. The same, if 3 and 3 their difference is negligible. And here 2 2 I don't know if it takes out, because here it is between 2 and 3 and this one is between 2 and 4, but then the 4 pulls it more towards (Referencing Figure 21 in Friend & Hickling, 2005). Yes, I mean, all this data would be a little bit more to the right, a little bit more I think there has to be a difference between this 4 and this 3, here there are 5 and 4 and there is one and here there is 4 and 2, here there is 2, that is, the difference between these two is like 1, It might not be that big, instead the difference between these two is 2 and this one again is 1.*

So within comparison this 3 and 2 would be at my level of importance that the 5 and the 4 versus these two that have like double the difference, then it would be a little bit more moved and what the 4 gives us the majority, then that dot would have to be more towards the 4. The arrow, yes, everyone and the arrow can be used more to identify how sure we are of the information or how much importance we or people also give it, or depending on the data, sometimes if we have precise data such as quantitative, which is money for example, then it can be as we already have it more certain versus perceptions that are people, it could be a much wider range.



Figure 46: PUJ's Short List, Note: comparing on the different schemes made by each group and scheme b (see appendix f for translation) made by PUJ collab.

s03 19. (20min): Finally, the ranges obtained from the AI ratings were compiled into a short-list, which made it possible to see at a glance which decision scheme performed best in each comparison area. Overall, the “winner” is **scheme AGV (Buildability – Mixed use – Ground-floor commerce – Densify)**, since it accumulated the highest scores across most variables in the AI-supported evaluation.

However, all of the schemes rate relatively well and remain quite general, because the questions, assumptions, and reference information differed between groups and there was limited prior depth in both the SCA method and the specific Green Corridor (TCV) project, which reduces the precision of the comparison.

Facilitator: Right now we can give it as a total at the end of each of the projects, so let's say that this one has one, two, three, four, five, six, seven points or is in first place seven times, but the idea is that we can understand which one was first, which one was second and which one was third by the totality of the score or the position or the rank. Have a question? If this part is understood?

Student: If there are only two stars, do they get both?

Facilitator: Yes, yes, you could put the stars, usually it would be like by rank, let's say it was because the middle one has the most also little fingers down, then it would be like in third place.

Here we are using the little stars, so we could use it as having 2 points, the other one has 7 points and the one above has 1, 2, 3 points, but one way or another, no matter how we do it, the important thing is that the information of which within this range of comparison is giving us greater preference.

...Well, then with this exercise we already know that the buildability scheme plus mixed use, more commerce on the first floor, more densification, is the one that is calling us the most, because within the comparison it is the one that gives us the most benefits within the categories that we select, taking into account that these categories usually have a lot to do with values, with what are the priorities that each of the actors is imposing.

Many times these priorities can have an even higher priority range due to the fact that the actors with the highest proportion of decision-making seem more important to them. So they are little things that vary a lot within the decision-making. But this is an example of how it could be done, sometimes it could be like let's say an example of an exam that each of these categories, depending on the priority given to it by each of the actors, has a percentage within the exam, so to speak, and at the end it would be told its respective point depending on the percentage that each of these questions had. Do I make myself understood? OK, I don't know how to explain.

Choosing

s03 20. (20min):

Facilitator: *According to that task within the scheme that you selected, what is the uncertainty that exists, what are the problems, what is it that is not there. What are the problems that could occur within decision-making, the lack of information, all that kind of uncertainty, if you don't remember I'll give you the slide.*

Prof. Bustos: *Of uncertainty. One level of uncertainty is.*

Student: *It's I'm going to put just. Oh, he wouldn't let me select it. Well, there are the different types of uncertainties that we can find in a project.*

Prof. Bustos: *You can ask them to do it as well. Look, make me a table with the levels of uncertainty, considering that there is uncertainty of values, uncertainty of the environment, uncertainty about managing uncertainties about disruptive events. And to make it much more precise they put this texts that are on the presentation, put the name and title, that way it can do it much faster.*

Facilitator: *Lami and Todella (2019), for the uncertainties, and all this is based on a book by Friend and Hickling (2005), which is called Planning Under Pressure, which are the ones explaining the whole model of decision-making and methodology, the other paper is introducing the prth uncertainty we'll be working with.*

For example, if there is an uncertainty about lack of information, then I feel that it is time to start filling that gap, if something is going to happen, then have some solution for that in the future. And then the cool thing is that we are going to be able to see what would be the steps to follow to be able to resolve this uncertainty. Do you remember?

The workshop formalized four Areas of Uncertainty from SCA—Environment (UE), Values (UV), Related Decisions (UR), and Disruptive Events (UD)—and students applied them to the Green Corridor case, mapping issues like safety and flows, heritage versus densification, inter-agency coordination, and shocks such as floods or crises.

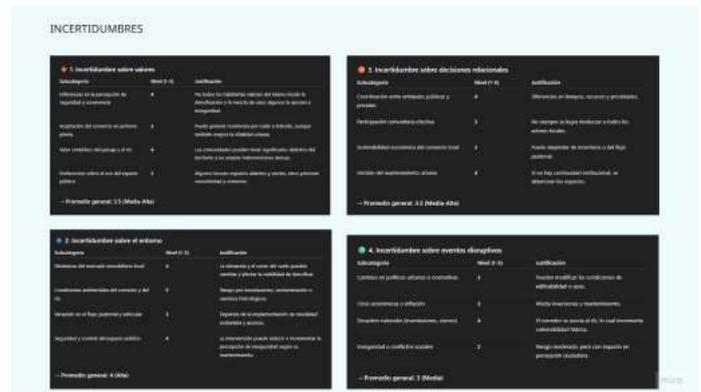


Figure 47: Uncertainty evaluation of AGV scheme, created by AGV group using ChatGPT (see appendix f)

In the specific scenario of ground-floor commerce plus housing densification, overall uncertainty sits between medium and medium-high (about 3–4/5), dominated by value conflicts around heritage, density, and mixed uses, and by environmental factors tied to the real-estate market, river conditions, mobility, and security.

Santa Elena's heritage, perceived insecurity, and the habitability and use of public space fall in the high-uncertainty range because any intensification of use simultaneously affects identity, comfort, and land-use conflicts, while interaction, aesthetics, and connectivity remain at medium levels, highly dependent on coordination, maintenance, and mobility decisions.

Within this setting, AI was used less as a provider of precise numbers and more as a scanner of

problem zones: prompted to rate impacts under UE, UV, UR, and UD with only very general local inputs, ChatGPT prudently produced broad ranges and context-based justifications that remain quite abstract, since they do not incorporate the richer evidence from previous TCV research.

As a result, the outputs **highlights further exploration, participation, and technical study are needed**, but they cannot be treated as fully “real” or project-specific diagnoses and should be read as **indicative hypotheses rather than definitive answers**.

The official workshop effectively closed at the moment when AI-supported uncertainty matrices were defined; from that point on, the concepts of Choosing and commitment remained only partially developed.

In a later, separate space—an interview with the students preparing their final Green Corridor submission—the conversation returned to exploratory options and to the time frames and process steps that would realistically be needed to move their diagrammed proposals toward implementation, but this did not amount to a full additional SCA cycle.

In that external conversation, the earlier ideas about exploratory options were simply recalled in broad terms: *actions aimed at reducing uncertainty before committing*, such as market research on local commerce, participatory work with vendors, and inter-departmental coordination around financing and maintenance, rather than immediate design execution.

Likewise, the more advanced notions of Action Schemes and commitment packages were mentioned only as a reference horizon (partial com-

mitments in urgent areas while keeping other options open) and were not worked through with indices or formal pathways.

For the purposes of this report, these post-workshop exchanges—the students’ final deliverable, the interview, and the professor’s informal comments—are treated as external to the core SCA exercise: they help show how students were beginning to think about exploratory options, timing, and implementation, but they do not alter the fact that the structured process documented here ends with the identification and discussion of uncertainties supported by AI-generated evaluations.

5_1.b THE PILOT's Reviews, surveys and deliveries

This section serves as a report on the final outputs from the first pilot workshop at PUJ. Its importance lies in gathering comments and insights that will guide adjustments to the methodology before the formal comparison at USB.

Covering the full cycle—from initial SCA training to post-workshop interviews—it brings together observation notes, feedback from students and professors, survey data, and transcripts of these exchanges. Although participants understood the core SCA concepts, gaps remained in the depth of uncertainty analysis and in translating theoretical frameworks into practical decision schemes.

On the use of AI (ChatGPT for this case) provided a helpful analytical scaffold, but its contribution was limited without the integration of local knowledge and stakeholder dialogue.

Observations

On an initial account, Prof. Bustos described the first SCA application as marked by constant tension between time pressure and conceptual depth: a two-hour session compressed activities and limited students' mastery of the steps, even though they were somewhat familiar with the method. He judged the exercise “too superficial,” but noted that it still helped students understand how decision areas can be reorganized and linked, even if their problem graphs remained general and only loosely grounded in local realities (Figures 34–36).

A key gap was actor specification. Prof. Bustos

emphasised the need for pre-prepared “character sheets” with basic roles, interests, and current functions so that actor discussions would not be improvised in real time and framing would be clear without over-directing students' interpretations (Figure 23 and Table 7). Correspondingly, he observed that their introductory comments had steered options too strongly toward social issues, revealing that genuinely value-neutral problem framing is impossible: *the way problems are presented inevitably shapes how students generate options.*



Figure 23: slide of Stakeholder Roles, Priorities, Constraints, and Potential Conflicts. (source: Author)

On actor analysis, Bustos warned that a full treatment can overwhelm design-stage students: **actors bring competencies, budgets, institutional constraints, and shifting priorities that may lead to inaction**, as in a commuter-rail project that has remained in formulation for more than a decade while agencies debate roles and create new authorities. **For studio teaching, he suggested keeping actors as a background reference rather than a full analytical layer**, while recognising that real implementation ultimately depends on them; following advice from Prof. Marín, stakeholders were therefore given clear priorities and treated

as “characters” for participants to engage with, explained in Table 7.

Because decision areas and options remained broad, work on option compatibility and decision schemes stalled: **with questions framed generally, almost every combination appeared compatible, potentially yielding more than twenty schemes and making meaningful comparison impossible.** To mitigate this, comparison areas and uncertainty categories (UE, UV, UR, UD) were introduced as conceptual scaffolds, prompting students to identify the most relevant criteria and uncertainties for each decision area to maintain flexibility and iterate quickly in future exercises, although this process was not fully completed.

Regarding format, in the second SCA application Prof. Bustos considered the in-person workshop *“much more dynamic”* than the earlier virtual session, *“noting that physical presence improved focus and appreciation, especially when using ChatGPT”*, which allowed students to *“solve things they hadn’t imagined”* and acted as a practical support that simulated expertise while deepening their understanding of SCA. **He also argued that fully worked, prepared examples would make the process more didactic, since even experts require substantial prior research to formulate problems and options;** without such examples, some students became lost and disengaged, particularly with laptops as distractions, so the slides were adapted to include site-related examples instead of relying only on the book’s example and a ready-to-use template (see 4_3. Workshops preparation and Protocol for slides adjustments).

Bustos regarded SCA as highly beneficial for his course because it trains students to analyse

hypothetical problems without single correct answers, prioritise among alternatives, and gradually internalise systematic planning as a mental habit rather than a purely external tool. He stressed the importance of teaching “zoom” scale (moving from the 27-kilometre corridor to a specific 500-metre segment) as a way to make city-scale problems operable, praising the workshop for quickly taking students to an advanced stage where abstract concepts were translated into concrete design categories, with a group report as the final studio deliverable.

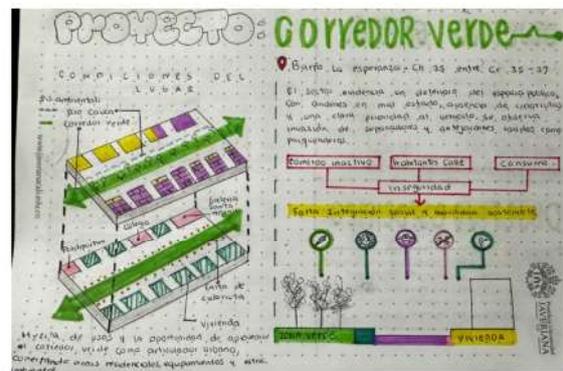


Figure 48: Scheme in SA group report as final delivery. Source: S. & A. (2025). Report on the green corridor

At the same time, he noted that students still lacked a fully worked, step-by-step example, which would make uncertainty and decision-scheme components easier to grasp than verbal explanation alone, reinforcing the need to adapt the USB workshop slides. The initial use of AI in the project was very broad and did not meaningfully engage with the specific data and comparisons generated during the workshops, highlighting the need to study these tools more carefully before relying on them. Guidance from Prof. Marín and a systems engineer underlined that effective use of ChatGPT (whose answers can be overly positive and occasionally unreliable) requires prompts that clearly specify context, limits, and objectives so

answers remain anchored to the empirical information produced in the thesis. Building on this, the engineer stressed that prompts should begin with a concise contextual summary, state explicit constraints on what the model may or may not consider, and be tested through multiple iterations by different team members so responses can be compared and validated rather than accepted at face value.



Figure 24 and 26: On the Use of AI in Comparing mode for both SCA applications in the USB (source: By Author)

In parallel, the recommendation to employ NotebookLM was crucial, since that tool operates only on pre-selected sources supplied to the conversation, offering more precise answers and reducing the risk that AI outputs drift away from the empirical material already gathered in the investigation.

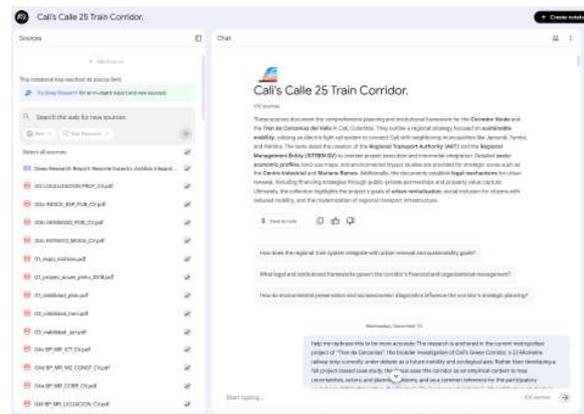


Figure 49: Screenshot of the Notebook about the investigation of the Green Corridor (source: NotebookLM)

surveys

Two surveys were administered to evaluate the workshop's impact. **SURVEY-1 focused on the perceived utility of the methodology** for architectural training, while **SURVEY-2 provided a more technical review of how students applied SCA to the Green Corridor project.**

Overall, ratings for the **workshop's usefulness were consistently high** (mostly 4 or 5 out of 5), with many students emphasizing that it introduced a systemic way to understand problems and compare multiple aspects and relationships at once, rather than relying only on intuitive design. Students highlighted that the approach helped them see the **“human” and social dimensions of projects**, appreciating the chance to think about actors, conflicts, and responsibilities instead of staying only at the level of form.

Surveys revealed friction points: **communication issues in online sessions, theory feeling confusing in virtual format, mixed views on the collaborative platform, and most often, lack of time—students felt rushed and wanted more space to absorb and apply each SCA step.**

On the technical side, students reported that organizing problems into categories such as mobility, public space, housing, and regulation was a clear and powerful entry point, and they understood well the idea that some options are incompatible because different actors have conflicting interests. However, several admitted they did not clearly remember all comparison criteria and **found relationships between different kinds of uncertainty harder to map.** In applying SCA to the Green Corridor, uncer-

tainty and conflict emerged as central drivers of decisions, and examples related to eviction and displacement were especially impactful, reinforcing the ethical and social stakes of their design choices.

Students expressed strong confidence in small-scale, tactical interventions—like cleaning green areas or repainting existing courts—as a way to test ideas and relieve pressure without committing immediately to irreversible, large-scale projects. Safety appeared as a major comparison criterion: many argued that ground-floor commerce and continuous lighting, creating “eyes on the street,” were crucial for improving the perception of security. At the same time, they recognized the need to balance social impact, technical feasibility, and costs to avoid project paralysis.

Finally, the surveys suggested ways to better integrate SCA into the curriculum. Students asked for **more prior research on the site so that uncertainty during the exercise stems from real conflicts rather than simple lack of information.** They also proposed value-capture instruments and tax incentives to encourage residents to upgrade their housing in line with the corridor's objectives, indicating that they were beginning to connect methodological tools with long-term governance and financing strategies.

Overall, the workshop functioned for many students like a new set of lenses: initially blurry because of format and time constraints, but increasingly sharp in revealing hidden layers of actors, conflicts, and trade-offs that traditional design intuition alone had not made visible.

Delivery

The technical support document outlines an environmental and urban design framework for the Green Corridor between carreras 29 and 39 in Cali, conceived as a linear structure addressing ecology, mobility, public space and local socio-economic conditions. It situates the project within debates on densification, natural-resource pressure and corridor-based regeneration, noting problems such as illegal dumping, insecurity, sidewalk invasion, car-oriented design, weak commerce, low residential density and missing continuous cycling infrastructure, and aims to define environmental design parameters that can mitigate or aggravate these issues.

Methodologically, it follows three mixed phases: **(1) reviewing national and local regulations** on environment, public space, sustainable drainage and active mobility, alongside comparable mid-scale projects to draw configuration, financing and implementation lessons; **(2) conducting on-site diagnosis** through photographic and cartographic surveys, mapping of dumping and insecurity hotspots, semi-structured interviews with residents, traders and authorities, and short surveys of walking and cycling within a 300–500 m radius; and **(3) integrating findings in a GIS**, producing design diagrams (plans, sections and profiles with green areas, sidewalks, cycle lanes and environmental furniture), and using environmental, social, safety and economic criteria to prioritise interventions.

The findings depict a corridor with 15 dumping hotspots linked to vacant lots and a lack of suitable containers or furniture, strong perceptions of insecurity from poor lighting and weak natural surveillance, sidewalks occupied by motorcycles and informal structures, and a street layout that consistently favours cars over pedestrians and cyclists. This reduces accessibility, discourages walking and cycling, and weakens spontaneous “eyes on the street,” while long stretches without active ground-floor uses further erode urban vitality.

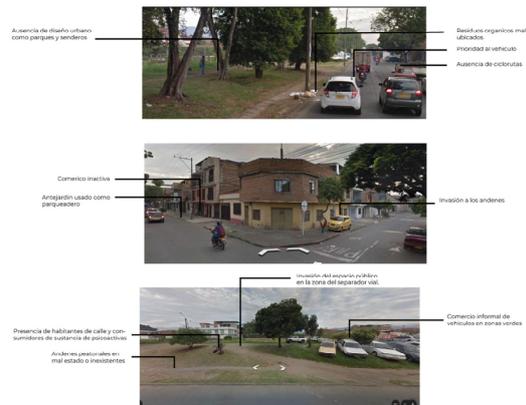


Figure 50: Identification of problems in the sector (source: S&A)

The discussion argues that targeted environmental design—trees and vegetation that preserve visibility, better lighting, clear hierarchies between modes, continuous cycle lanes and appropriate furniture—can counter current problems, but only if backed by institutional coordination, clear rules, maintenance, community participation and education.

It recommends converting underused, conflict-prone spaces into community gathering areas and urges the land-use plan (POT) to treat green corridors as structural spines linked to sustainable-mobility networks and mixed-use, moderately densified edges, with shared responsibility for public-space protection, support for local sustainable commerce and assured management so the Green Corridor becomes a driver of regeneration and social cohesion rather than a cosmetic green strip.

In light of the students’ technical report for the tramo between carreras 29 and 39, **the interview with A.O. and S.C. shows how far SCA ideas travelled into their project and where they stopped.** Their fieldwork closely mirrored the report’s mixed-methods diag-

nosis—repeated site visits, photographic and cartographic surveys, and use of cadastral data on heights, areas and values—to read problems such as dumping, sidewalk invasion, low perceived safety and weak commerce; however, this largely descriptive work fed a strong diagnosis of conflictive spaces without fully translating into explicit decision schemes or structured uncertainty analysis.

A crucial concern relating the cadastral data, where the students initially **extrapolated block values from a single “typical” lot, while the facilitator pushed them to reinterpret these figures through incentives and rules that would make redevelopment both viable and fair**, echoing the report’s calls for value-capture, mixed uses and clear public-space norms. The discussion shifts from *“what is land worth now?”* to *“how should benefits and obligations be designed so private investment supports regeneration without displacement?”*, nudging the group from SCA’s Designing mode (options) toward Choosing (commitments and feasibility).

The interviews revealed tensions in the studio. **Students felt strong time pressure and struggled to prepare boards that could clearly communicate complex decisions within a short timeframe**, especially when addressing criteria such as safety, accessibility, and environmental quality. As a possible solution, they suggested creating a longitudinal studio in which a single project evolves over several years, allowing methods like SCA to move from diagnosis to implementation. **They also pointed out inequities between cohorts, since some groups had greater exposure to decision-making tools and extra sessions, which led to uneven capacity to engage deeply with SCA.**

On uncertainty, the limits of the exercise become evident: although students spoke fluently about actors, conflicts and risks and identified interlinked environmental, social and mobility problems, **they did not explicitly map proposals onto SCA’s four uncertainty types or compare alternative decision schemes with different robustness levels.** Final exchanges focused on regulatory flexibility, financing and phasing, but without ranking uncertainties, exploring scenarios or setting contingency rules if assumptions on security, markets or heritage shifted, yielding a project rich in diagnosis and contextual sensitivity but thinner in its architecture of commitments and adaptive pathways.

Based on facilitators’ and Prof. Bustos’ reflections, the interviews show a mixed but useful outcome. Students grasped SCA’s core logic—decision areas, options, and actor conflicts—and used it to build a serious, ethically aware proposal. However, limited time, studio sequencing, and experimental AI support meant later SCA stages (like uncertainty modelling, scheme comparison, phased commitments, and adaptive management) were left underdeveloped. AI tools such as ChatGPT helped create initial uncertainty matrices and arguments, but the results were generic and worked better as prompts than as solid assessments. NotebookLM showed promise for keeping analysis tied to project documents.

Overall, the case illustrates both the potential and current limits of combining strategic decision methods with AI in architectural education: students learned to read and frame a corridor like 29–39 more sharply, but without longer projects, worked examples, and real stakeholder dialogue, the process tends to stop at diagnosis rather than moving into full decision structures and implementation strategies.

5_2. FORMAL APPLICATION (A)

USB_Non UA (mondays)

The workshop introduced the **Strategic Choice Approach (SCA) as a framework for decision-making in complex urban planning contexts without the use of Urban Acupuncture Principles**. Using the interactive platform **Miro**, and physical whiteboards, participants collaborated in on-site, in real time to identify decision areas, map relationships, and evaluate alternatives even with the technical difficulties.

The methodology unfolded across three of the four modes in SCA—**Organization, Design, and Comparison**—guiding participants to generate options, test feasible combinations, and establish commitments. Through this process, they learned to navigate uncertainty,

balance conflicting interests, and integrate economic, social, environmental, and regulatory considerations into urban strategies.

Students took on distinct roles:

Alcaldía (City Hall):
OCF, MEM, and MCZ

Desarrollador (Real Estate Developer):
JJD, SJ, and MJE

Junta de Acción Comunal (Community Board):
DP, MV, and JP

This role-play emphasized how stakeholder perspectives shape outcomes, helping students experience the complexity of collaborative urban decision-making.

Table 14

Overview of Group A, USB SCA (non UA) Workshop: Context, Purpose, and Key Elements

Component	Description	Purpose	Key elements
Workshop Context	Universidad San Buenaventura (USB), Urbanism I class, Monday group (non-UA)	Formal comparative analysis testing SCA methodology without UA principles	Dates: Oct 6 - Nov 27, 2025 Professor: Flor Inés Marín Duration: 3 sessions
Participants	9 students total divided into 3 stakeholder groups	Simulate multi-actor decision-making dynamics with competing interests	Alcaldía: 3 students Desarrollador: 3 students JAC: 3 students
Case Study Site	Segment between Carreras 39 and 42, Santa Elena corridor, Train-Tram/Green Corridor project, Cali, Colombia	Real urban planning challenge with Train de Cercanas (commuter train) integration	Key landmarks: Galería Santa Elena (market/BIC Level 1), Unidad Deportiva Mariano Ramos, Estación Simón Bolívar MIO
Problem Focus Selected	Canal Use, Public Space Use and Environment	Reduce complexity from many decision areas to manageable subset for detailed analysis	
Workshop Outcomes	Completed Organization and Design; partial Comparison mode	Strengthen project submissions and demonstrate SCA methodology application	Schematic designs with cartography, descriptive memory, and basic volumetrics to be validated by stakeholders
Student Approach	“Creative boldness” with experimental tone	Group A contributed through imaginative, extreme propositions fitting SCA’s mutually exclusive requirement	More playful than analytical; generated options during live sessions rather than homework

Facilitator: *In decision-making, why is it so important to put on a vest? What do you mean by putting on a safety vest before making a decision?*

Student: *Because if the decision I make fails, I need something to protect me from the risk I'm taking.*

Facilitator: *Why is the siren there?*

Student 2: *Because it's like the distractions we can have when making a decision—for many who are unclear.*

Facilitator: *And the captain with the hat that looks like a pirate?*

Student 3: *The captain is the person who guides the boat. So I think that at the time of a decision maybe there can be a mentor or something like that that can help us make that decision.*

Facilitator: *And the person in front, why did you draw her?*

Student 3: *In this case it's just a person with hair.*

Student 2: *The captain's wife,*

Facilitator: *Okay, did you draw her?*

Student 4: *Yes, because in decision-making there are people who can talk to us, with positive or negative opinions—like he's pointing one way and that person tries to dissuade her from where she wants to go.*

Facilitator: *And the sharks, why did you draw them?*

Student 4: *Because the road is not easy and you still have to take it.*

Facilitator: *And why is the ship still tied up? Hasn't it sailed yet? Who put the rope on it?*

Prof. Marín: *She wanted to create an anchor so she*

could moor when she reached the other side, but it wouldn't let her. Sometimes there are difficulties when you want to do something but something stops you from making the decision to start.

Post-its (translated): 'Bad weather'; 'Storm'; 'Danger of electrical storm'; 'The pier looks very far away, I don't think I'll make it'; 'The sail is not properly opened'; 'Set the course'; 'I might crash against the pier'; 'The waves could push me and I might not reach my final destination'; 'Safety to be able to moor the boat'.

The metaphor revealed governance and agency issues. The absence of a captain was repeatedly associated with weak leadership or lack of mentorship, producing diluted responsibility and a sense of directionlessness. **Ropes and anchors represented attachment, hesitation, or difficulty letting go of previous positions,** while elements such as **mermaids, sharks and distractions mapped cognitive overload, conflict and emotional interference that divert attention from strategic objectives.**

Several students identified with the boat or the figures in the scene, describing the feeling of **being “at the mercy” of a storm of uncertainty, deciding whether to turn back or continue.** Knowing the boat's capacity stood for awareness of limits, skills and resources, while the **partially open sail illustrated inefficient use of those resources, causing stagnation or drift.** In the context of the Strategic Choice Approach, the “life jacket” highlighted the need for structured strategies or contingency plans so that complexity and urgency do not “drown” a project's progress.

Overall, the collective drawing turned abstract decision dynamics into a structured represen-

tation of uncertainty, constraints, agency, preparedness and commitment, echoing Friend and Hickling’s “View of the Realities,” where real-world pressures, capacities and contextual forces surround and shape strategic choice rather than sit outside it.

s01 5-6. (11min):

For the next exercise, in which concepts were placed over the illustration, several technical issues arose. These were resolved by asking participants to redraw directly on the slides and then reorganize the concepts according to their own ideas.

Facilitator: *There was an initial part, the boat in the centre, and the last part at the end. On the right there were storms, on the left there were storms, and on the right there were waves. If you want, you can organise it roughly like this, or in whatever order you think makes sense. Thank you.*

Prof. Marin: *In the face of adversity, solutions.*

Facilitator: *Let’s take one more minute to move forward... Oh, it’s the next port. Among these elements we have different pressures. Looking at the images, what pressures do you think might be affecting decision-making?*

OK, the storm. But among the words we see here, what could that storm represent?

Urgency could be one pressure—urgency, overload. What do you think about “research”? Where would you place it; how could it help?

OK, so: research, progress, turbulence, intervention, confusion, disenchantment. I’m going to lock everything for the next step so we can keep track of this.

Prof. Marín: *Thank goodness we decided to do a preview before hand*

Facilitator: *Yes, that preview was important, although Javeriana was supposed to be the pilot.*

(On the fact that all slides, images and concepts were moving around and making the activity rather difficult)

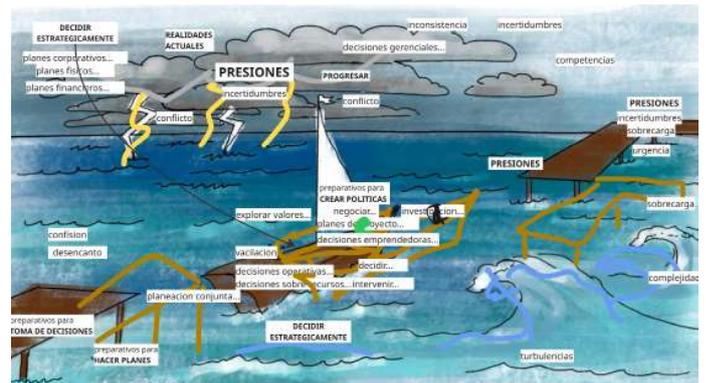


Figure 52: USB_Mon. Reorganization of the concepts from fig. 1 on the ship illustration (Source: Group A collab)

Location of the Concepts:

Top left (clouds and sky):
DECIDE STRATEGICALLY;
corporate plans... physical plans... financial plans... (types of strategic plans near that title).

Top center/right (clouds):
CURRENT REALITIES
inconsistency, uncertainties, management decisions..., competition/competitors.
PROGRESS

Lightning and dock area (pressures)
conflict, uncertainties, overload, urgency.

Around the boat (preparations and decisions)
preparations for MAKING POLICIES, negotiate..., research..., project plans..., entrepreneurial decisions..., operational decisions..., decisions about resources..., intervene..., explore values..., hesitation, decide....

Left pier and lower left (preparations)

*preparations for DECISION-MAKING
preparations for MAKING PLANS
joint planning... bridging pier and boat.*

Bottom and waves (progress and turbulence)

Under the boat: *DECIDE STRATEGICALLY,
along the route forward.*

Near the waves: *“turbulences”, “complexity”
confusion, disenchantment.*

Facilitator: *Okay, here is the original diagram (referencing s01_6). It shows the whole environment or context that exists when we make a decision. Usually, to decide, we go through preparations for making decisions, creating policies, or making plans. Within these preparations are the different types of decisions we mentioned—operational, managerial, resource-related, entrepreneurial. All of them are part of preparing to decide and to plan strategically. We are, so to speak, in a “sea of current realities,” with hesitation, uncertainty, inconsistency, confusion, and disenchantment, which are all very common in decision-making.*

Sometimes other pressures also push us to decide faster or make decisions harder for the decision-maker: complexity, conflict, overload, turbulence, competition, and urgency. These pressures can stop us from making a clear decision; we may simply choose whatever seems quickest. Greater complexity (more options) can also generate confusion. It is like the ice-cream example: if a shop has only three flavours, you quickly pick your favourite; but if it has twenty-five, it takes much longer to choose.

Prof. Marín: *Much more, while I try them all.*

Facilitator: *Something similar happens with important decisions. For example, when you chose this degree, how many options did you have?*

Student: *I was between other one and and Architecture that has nothing in common, but first I investigated on architecture, but i was too lazy to check the other so I went with it.*

Facilitator: *So in your process you planned to re-search both, compare them, and then decide—but an external factor, laziness, tipped the decision, and now you live with that outcome.*

Anyone else want to share how you chose your bachelor’s degree, especially someone who felt more undecided?

Student 2: *In my options I had Medicine, Psychology, and Architecture.*

Prof. Marín: *Everything!*

Student 2: *And very opposite options. And well... I revised the curriculum of the 3 and chose architecture because I didn't see myself all my life attending people in medicine I literally didn't see myself in that and in Psychology it was a lot of reading and I don't like it. then, architecture on the art side and all that stuff.*

Facilitator: *Ok, any others?*

Student 3: *My other option was Music.*

Facilitator: *And why did you end up with Architecture?*

Student 3: *Because music here doesn't offer much; unless you are very successful, it's hard. I decided to keep music as a hobby and chose Architecture as my career.*

Prof. Marín: *But you still make music, right? You can carry it on alongside your studies. I also had two options, Law or Architecture, and at first I did Architecture*

Facilitator: *And then Law, and now you have both.*

Prof. Marín: *Yes, after many years I ended up studying both. I wanted to study at Universidad del Valle; since they didn't offer Law, the decision became easier: the only option was Architecture. Later, I was still able to study Law too.*

s01 7 (6min): For the explanation of the Balance of Scopes, it was pertinent to refer to the earlier example of choosing a career, since whether one is starting a research project, writing a thesis, or launching a design, it is crucial to exercise balance judgment about how far to broaden or narrow the topic. We usually begin with a general question and progressively focus it, deciding how much ground to cover and what to leave out. This is what Friend and Hickling capture in their Judgements of Balance figure: choosing between a more focused or more synoptic scope, a more simplified or more elaborated treatment of complexity, a more reactive or more interactive approach to conflict, a more reductive or more exploratory stance toward uncertainty, and a more decisive or more accommodating view of progress.

During the session, this framework was explained with laboratory-style examples. For instance, “reductive” uncertainty treatment was likened to a school experiment where certain factors (such as gravity or material reactions) are temporarily ignored so that attention can be concentrated on a smaller set of variables. In practice, students were asked to reflect on where they would locate their own projects along these axes—how tightly they should define scope, how much complexity to incorporate, how actively to engage with conflict, how many uncertainties to hold open, and how far to push for firm decisions versus exploratory steps.

s01 8. (5min): During the explanation of **Tame problems** (“domesticados”), students described them as situations “we have control over” and “things we commonly face and already know how to solve,” likening them to maths exercises with a known step-by-step formula. The idea was reinforced with: *tame problems*

are everyday issues for which we possess a tried-and-tested procedure, so decision-making is relatively straightforward.

Critical problems were associated with urgency and the need for immediate action. One student called them “hard to solve” or “strong” problems, while everyday examples included getting sick or having an accident, where “*the repercussions can be worse*” if no decision is taken. Drawing on Grint’s dog anecdote, the facilitator described a pet that escapes into the street: the owner must decide on the spot whether to chase the dog or attend to other responsibilities, knowing that delay could have severe consequences. **Prof. Marín** added a personal story of a cat falling from an eighth-floor window, highlighting how critical problems force rapid choices about treatment, logistics, and care for dependants.

By contrast, **Wicked problems** (“Malvados”) stood out for their social complexity and the absence of a single “correct” answer. One student noted that they are problems that “end up affecting other people” and where “no matter what... someone comes out harmed.” They were described as situations without an immediate solution, such as a “problem with a neighbor.” The facilitator clarified that they are not necessarily “Machiavellian,” but rather dilemmas with multiple valid options, comparing them to choosing a dish from a restaurant menu: all alternatives may be attractive, but the choice depends on appetite or external factors:

Facilitator: *What do you think of the wicked? what kind of problems do you think is evil enough to have that name.*

Prof. Marín: *They come to affect.*

Student 2: *From decisions such as affecting others, yes or yes affecting someone comes out as harmed.*

Student 3: *Problem with a problem that doesn't have an immediate solution, OK.*

Facilitator: *But that is something from an external that affects us, it gives us a problem. OK, any other idea?, Something that seemed like that a super Machiavellian problem, I don't know. Well, honestly they are not so Machiavellian, but,*

It's more than all this kind of Problems that one does not really know where to go because the solutions can be both very good or not necessarily bad between one and the other, but depending on what you want most or what you really need at the moment, you have to go for that decision. So we always have a lot of very good decisions, it's like you have the menu in a restaurant where you're going to go and you have all those options and all the options to eat are very good meals, but it depends on what you're craving, let's say, or your appetite or I don't know, other external factors or your same decision to be able to make that, Well, choose what you are going to eat at the end on the menu. But what they said is also closely related to decision-making.

Together, this classification was used to sensitise students to the different decision contexts they are likely to encounter in urban and architectural planning, and to the need to match their strategies—command, management, or collaborative leadership—to whether a problem is critical, tame, or wicked.

s01 9-10, (20min): In this part of the workshop, uncertainty was introduced as a central dimension of decision-making and **linked by Prof. Marín to the students' recent work on partial plans.** Uncertainties were organised into four types, beginning with those related to values (UV). These concern the aims, principles

and priorities that guide a decision—for example, whether to prioritise higher density, mixed housing and commerce, or expanded public space in a given area. **Using the partial plans they had just prepared, the facilitator and professor showed how goals such as “rethink commerce and housing in the same area” or “increase public space” reflect value choices rather than purely technical parameters.**

The discussion stressed that values are not fixed but shift with context. Comparing a central-area plan to one in an expansion zone crossed by a river, power line and forest illustrated how objectives like densification must adapt to ecological limits; design decisions such as avoiding roads through certain plots exemplify how value uncertainty is handled in practice.

The explanation then moved to uncertainties about related decisions and the working environment (UR and UE). Drawing on a previous exercise, they noted that uncertainty often arises less from missing data than from clashes between stakeholder values and agendas. These tensions cannot be eliminated, but they can be reduced through research, clarification of objectives and collaborative processes.

Finally, was considered disruptive-event uncertainty (UD), particularly salient in Latin American cities: attacks, protests, earthquakes, accidents, strikes or sudden blockages that are unpredictable yet capable of reshaping plans. Students were encouraged to think in terms of “what-ifs,” recognising that architects and planners must anticipate such disruptions through contingency strategies, emergency planning and resilient designs that assume change rather than stability.

With Uncertainties explained, the the workshop outlined the four types of uncertainty that keep decisions open, tied to the diagrams in the slides.

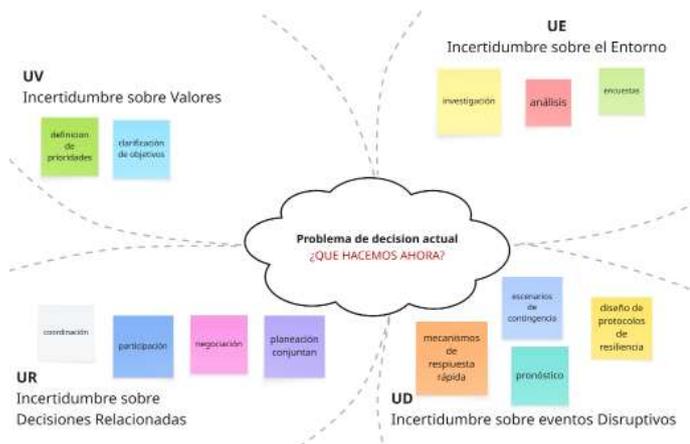


Figure 53: USB_Mon. Reorganization of *Acing urban uncertainty with the strategic choice approach: the introduction of disruptive events* (Source: Group A collab)

Facilitator: So, activity again guys, inside these categories, put the post-its

...Usually it can go more into research or also values, but then... OK, why is the definition of priorities within values? Who put it in? Why did you put it in?

Student 2: Well, I don't know, if it's alright... The decision is going to be made, because I think it is necessary to first define the priorities to be able to carry out.

Facilitator: Exactly. Now, clarification of objectives, why are they in values?

Prof. Marín: You just said that, in order to know what values I'm going to aim for, I have to be clear about what objectives I'm aiming for.

Facilitator: Now, why do you think there could be a survey of both values and around? Whatever comes to mind, doing surveys, why could it be both in values and environment?

Student 2: Because for both you can, I mean, I have put it, I take it as the side that one has doubts, you can go to someone else to ask and make that decision, so I feel that it can be about making decisions about values or about the issue of what is going on.

Facilitator: It is true, that is, you can take a survey of the people you are going to affect within your partial plan to find out how they are going to be affected. To know what those values are or what the priorities are. Surveys are good for everything. Let's see, prognosis because it would be within the environment, why would they be making forecasts?

Student 3: To be able to give us an idea of what the situation is, so to speak, as a forecast of what information we need or what we are going to face.

Prof. Marín: What you just said, maybe the forecast would help you to analyze as possible future scenarios that go.

Facilitator: To happen there, the forecast is a little more related to the UD, because it is in line with the idea of what could happen.

Prof. Marín: A disruptive event you need to be able to attend, you need to have a plan, such as an evacuation plan in the event of an emergency, it may never happen, but if it does, you have to have an idea of how you are going to do it.

Facilitator: Exactly, the same with contingency scenarios and design of implementation protocols? More or less in the uncertainty of disruptive events, this type of event happens to us where we do not know what could happen, but we have to be prepared for that 5% probability that an earthquake will occur. So those are the kinds of things that we have to look for to solve when making a decision, or sometimes when making a plan, when the POT is done or when these types of

plans are made to guide others, we usually have to foresee many times what is going to happen, how we could solve it, or guide other people to do the same as well.

s01. 11-12 (2min): The rocket-launch analogy summarized how a current decision problem is surrounded by evolving uncertainties that must be progressively resolved through research, coordination, and clarification of values, and showed that even with a planned trajectory unexpected “meteorites” (larger planning problems or disruptive events) can appear, so planners need a scape “capsule” of alternative plans to keep moving forward despite changing conditions.

s01. 13-14 (8min): To connect the framework with personal and territorial decisions, students described in post-its on how they currently make decisions are:



Figure 54: USB_Mon. Post-its defining the roles that participants will assume in workshops (Group A collab)

Post-its translation:

“Getting up to date on the topic, valuing above all that even if I make a mistake there can still be a solution, and using that information to make the right decision.”

“Review my options and make a list.”

“I review pros and cons, based on budgets, appearances, and values.”

“Evaluate all the options and possibilities I have

and then look at the pros and cons of each one.”

“By listening to expert opinions.”

“I analyze the possible decision alternatives, evaluate them, and choose the one that has the most long-term benefits.”

“By following my intuition.”

“By choosing the most convenient one.”

“Using my experience as a starting point.”

“By evaluating alternatives.”

The slides on “Proceso de toma de decisión simple vs estratégica” contrasted a linear model (single problem → pros/cons → result) with the SCA cycle of multiple problems, organization of decision areas, option design, comparison, and agenda-setting for action, and Porf. Marin stipulated that the final delivery/exam for this course would be related to all this methodology.

s01 15+ (5min): Finally, the site was briefly introduced, with an explanation of the sector and its key intersections, and a small homework task was assigned so participants would arrive better prepared for the next session, when SCA would be applied. Asking the participants to revise three core ideas: a decision area as a question requiring a choice between mutually exclusive actions, decision options as the specific alternatives within that area, and decision categories as groupings of related areas (e.g., location, transport, finance). With that, apply them to Calle 25 (39–42) by listing visible problems and needed decisions, classifying them as tame, critical, or wicked, identifying uncertainties (UV, UR, UE, UD), and proposing value categories such as capital, housing share, biodiversity, or community.

Session 2 - Shaping On the application of SCA_non UA

October 20th, 2025
(9 participants)

s01 1-15 (5min): The session opened with a review of previous concepts, such as the types of problems, accompanied by comments on their relative lack of energy in comparison. However, this was not the only challenge that day. Server issues in the U.S. significantly disrupted internet connectivity and the use of the MIRO platform, which had a major impact on the timing of the class and the application activities themselves.

Some recollections of previous concepts highlighted the urban problems in Medellín discussed during the Urbanism class (previously given to the workshop session), particularly in relation to catalytic projects. Before the infrastructures that now stand out as symbols of **Medellín's urban transformation, these issues were considered wicked problems that had not been addressed in the way the city eventually did.** Today, projects such as cable cars and outdoor escalators serve as international examples of innovative approaches to tackling the same complex challenges of marginalization and disconnection.

s02 4-6 (4min): The workshop then shifted to the specific study area—Calle 25 between Carreras 39 and 42—covering the Galería Santa Elena and the Mariano Ramos Sports Unit, and it was clarified that the entire axis is publicly owned and reserved for the future commuter-train corridor.

One student characterised Santa Elena as suffering from *“visual and auditory contamination,”* overcrowding, bad smells from the adjacent canal, and many exposed backs of buildings,

describing it as a *“dead place with little order”* where it is hard to live peacefully.

Then it was explained that the figures from the SCA book would serve as step-by-step references while students attempted to apply the method to this segment of the Green Corridor, asking them first to identify local problems. Discussion then expanded to the Mariano Ramos Sports Unit, highlighted as one of Cali's few facilities suited to professional-level training, and to the nearby Simón Bolívar MÍO station, envisaged as a key connector with the commuter train, with additional stations proposed at Santa Elena and near the sports unit. To support sketching and analysis, the facilitator provided a simplified diagram of the corridor, indicating in grey the current informal “invasion” of the rail right-of-way that the project must address.

Facilitator: *The figures from the book will work as our step-by-step example while we try to apply everything in this part of the Green Corridor or commuter-train project. We'll focus here, along Calle 25 with Carrera 23; this is our small study area.*

I'm not sure how familiar you are with the sector. What problems does the Santa Elena market have right now? Okay, okay... S, the microphone is yours. What are the problems?

Student (S): *There's a lack of organisation: visual clutter, noise pollution, bad smells. There's overcrowding and poor hygiene; it's also a social problem that's grown out of control. Overall, during the market days the place becomes very disorienting because people don't know how to organise the space or the commerce or how to manage themselves. Being next to the canal, which*

is also polluted, adds to the bad odour. And the architecture doesn't help; there are many exposed backs of buildings. It feels like a dead space with very little order.

So it's not a place where you can live comfortably or be at ease. If you live nearby—like me, in Cristóbal—you don't always notice it, but as you get closer the atmosphere becomes heavy.

Facilitator: *We might not be right next door, but this is still a very important and influential area for our project. It includes all of this stretch. We also have the Mariano Ramos Sports Unit. Does anyone know what facilities are there, what happens there, or why it's called Mariano Ramos?*

Prof. Marín: *It's just that the neighborhood is called that, it's called Mariano Ramos.*

Facilitator: *Right. And, checking among all the sports facilities in Cali, we have many recreational centres, but there are only a few sports units where someone can really train for competition as a professional athlete, and this is one of them. So it's a key point of influence. A bit further along we have the Simón Bolívar station, one of the last stations built for the MÍO transport system, and it will become one of the main connectors to the commuter train.*

One planned station is at Santa Elena, another is right where we are working now, and another near the Mariano Ramos Sports Unit. So this is our context; this is the area where we'll be working.

Here is a small sketch I made, in case you want to think, draw, or diagram on your own. I drew it on the iPad, but the key idea is that everything shown in grey represents the current invasion or occupation of the future rail right-of-way.

s02_7 (6 min): Students were divided the following way:

Alcaldía (City Hall): 3

Desarrollador (Real Estate Developer): 3

JAC (Community Board): 3

With this prof. Marín the roles were intended as of "opposing interests"; for example, the community seeks tangible benefits and "to be heard," while the developer seeks financial return.

Facilitator: *please be divided among these three groups (referencing slide s02_7 - figure 23). Each group (actor) has its own responsibilities and objectives. Ideally, if you already have access to Miro, you can write your names so everyone knows who is taking which role. One of the people assigned will repeat the role from earlier.*

Prof. Marín: *Groups of three.*

Facilitator: *Okay, we're still fighting with the technology. I'll try to send you this, but my internet is failing a lot right now.*

Prof. Marín: *In the meantime, who is going to be the Mayor's Office? The groups are shown here (s02_7 - figure 23), and the role you choose now is the one you will keep until the last session. So think about it: do you want to be the Community Action Board, the Mayor's Office, or the Developer? O. is with the Developer group.*

The Mayor's Office will lead the project; we will support them in those roles, since the other instructor who was coming could not attend. I'll support the Mayor's Office and Community Action Board groups, and Ana María (Facilitator) will support the real-estate development group. Each actor will normally have partly opposing interests.

For instance, the Community Action Board is somewhat aligned with the Mayor's Office but does not have the same decision-making power. In the end, even if the Board makes requests, they are not necessarily implemented by the Mayor's Office or by the developers.

Facilitator: I need you to take a photo of your roles, because we're going to start another process now that we don't have access to Miro. I'll stop sharing the presentation for a moment so you can take the photo. Go ahead.

Perfect. In the presentation you'll find the role descriptions, and each role has a slide with space for you to define its decision areas—that's our next exercise. Remember: a decision area is an opportunity to choose between at least two courses of action. In the example I gave earlier, we have to decide where to place the new route—that location is one decision area. Another decision area is where to locate the shopping centre.

DESCRIPCION DE AREA DE DECISION	AREA DE DECISION
¿Cómo garantizar cruces seguros y accesos cómodos a la estación/modo en 38-42?	Cruce seguro?
¿Qué activación probar para atraer flujo y seguridad?	activación?
¿Cómo organizamos la participación que la comunidad sea escuchada y obtenga beneficios tangibles?	Escuchados?

Figure 55: Examples per role, slide 8b
(Source: Adapted by author)

s02_8b-8c (1h 21min): After role selection, students were asked to define decision areas for their assigned actor, using short labels and concrete examples tailored to each role (table 7). A decision area was explained as a question that requires choosing between at least two mutually exclusive courses of action, such as where to locate a new route or where to site a shopping centre. For the Mayor's Office, an example decision area was "safe crossings," framed as how to guarantee safe, comfortable access

to the station; for the Developer, "activation," focused on attracting flows and improving security; and for the Community Action Board, "listened to" centred on organising participation so that residents are heard and obtain tangible benefits (see s02_8b - Figure 55).

Because of repeated internet and Miro failures, groups drafted their decision areas and options in notebooks, then photographed or transcribed them into a shared Google Slides quickly organized by Prof. Marín. Connectivity was monitored throughout, with backup files exchanged to avoid data loss, and all contributions were later consolidated into a single document that incorporated screenshots of the slides for subsequent review and analysis.

5min (on decision area explanation):

Facilitator: I need you to take a photo of your role and its examples, because we're going to start another process and we don't have access to Miro.

The idea of a decision area is a question where you must choose between different courses of action. In the book's example (Friend & Hickling, 2005, p. 24), deciding where to place a new route is a decision area, "where will we locate this route?", and choosing where to put the shopping centre is another.

Each decision area will later have several options, but for now each actor should identify the problems they see as priorities. I've given you sample decision areas for each role (figure 55). For the Mayor's Office, the example is "safe crossings": how can we guarantee safe, comfortable access to the station at this node? (in blue).

For the real-estate developers, the decision area is "activation": how can we test ideas, attract foot-fall, and improve security? (in red). And for the Community Action Board, the decision area is

“listened”: how do we organise participation so the community is heard and gains tangible benefits? (in green), similar to the teacher’s example of building a visible element like a cable-car that clearly improves wellbeing.

These labels are very important because they will help us move faster in the next exercise. Each group has slides with space to fill in its decision areas. Given the connectivity problems, you can write several by hand in one place and then send a photo to your group so we can organise them later. If you don’t yet have access to all my presentations, we can also upload everything to Drive.

(1hour, groups working on their decision areas)

Prof. Marín: *And to see it from a different angle.*

Facilitator: *Exactly. If the idea works, we move forward. So, which decision area are you going to focus on, how to activate the zone, whether it should be covered, or something else? That’s basically what we’re trying to define for this part of the area.*

Student 2: *What are the places?*

Facilitator: *Think about the points around the corridor and what could be happening there. For example, what would it mean to work with the people currently occupying the rail right-of-way? If you imagine yourself as an investor, you’re going to put in capital, how might you start recovering that capital through projects like cultural facilities, new uses, or services?*

The key is to be as descriptive as possible so the decision area is very clear; then you give it a short label and start writing whatever ideas come to mind.

Prof. Marín: *Whatever comes out is useful. We’ve already had the thematic introduction; now*

we want you to imagine which problems have emerged and to speak as the “voice” of your role, bringing those problems to the Mayor’s Office and the developers. We’re focusing on definitions of decision areas, not yet on the methods you would use to talk to a real community—that would take too long.

In real practice it works like this, and the strategy is helpful because the structure we’re building will let you address problems in several dimensions—so that, for example, you can end up with at least one decision area on climate change, one on vehicular mobility, one on pedestrian and bicycle mobility, and others on environmental systems, tree cover, and connectivity.

Student: *So.*

Prof. Marín: *So, for each public space, look at the map and decide: as a community, are we concerned mainly with environment, public space, or mobility?*

Student 2: *Yes, that’s something we’re looking at..*

Prof. Marín: *Good. And you can also invent, say, a block that has existed for generations. Whatever you choose, imagine that this block has a long tradition, and think about that edge condition—we’ll come back to it a lot.*



Figure 56:
Drawing of the site
(Group A, Alcaldía)

Student 2: *The green zone here is key, because we have to see how much this new infrastructure could affect it (all of this is green) and how it connects everything else, including Santa Elena (referencing figure 56).*

Prof. Marín: *Exactly. As a community, you might demand, for instance, that any ground-floor green space taken up by the project must be replaced elsewhere—perhaps on roofs or in courtyards. That could be one problem you put..*

Facilitator: *Exactly.*

Prof. Marín: *Another problem that can be invented is, for example, that there is a block of merchants that has been around for years. They don't want to be moved, they want to be handed over 100%.*

Student 2: *A new location for these people, in the event that it is being affected with this new infrastructure.*

Prof. Marín: *Yes, let's say that you are leaving.
[...]*

Facilitator: *Another clue I left in the slides is to think by category: location, transport, etc. As developers, what would you want to do first in this place?*

Student: *Well, depending on our objective, probably what you mentioned about connecting everything. It would be more profitable if our goal is to strengthen mass transit and commerce. Maybe we could link the railway with the existing transport network and take advantage of stations that are already nearby. We might also propose a shopping centre or market hall to boost commerce in the area.*

Facilitator: *There might already be a lot of supply, right? That's exactly the kind of thing we need. How would you write that as a decision area? You have to choose which areas to focus on. If you want to build a shopping centre, which plot could*

you use? That's part of the location decision area. I was thinking of the red category in the slide, but if you see it differently, that's fine.

Student: *We're assuming this will be the train station, right? It's always full.*

Facilitator: *And the day it opens, even more so.*

Student: *I walk by here every day. Yes, that would be the train station. I think one of these blocks right in front of it would be ideal for a shopping centre. Since the blocks align like this, the mall could stretch along the block without breaking the existing morphology—that's what we want, not to destroy what's already there.*

Facilitator: *I like how you're thinking, but let's go step by step. It's very good, but we need to keep it structured. First, define the decision area: "We want to build a shopping centre, where can we locate it?"*

Student: *So we draw and describe it?*

Facilitator: *We don't need drawings yet, just ideas.*

Student: *Then we describe it using street?*

Facilitator: *Yes. At this stage we're defining areas, not options. In the earlier example, the decision area was "Where should the new line go—north or south?" The options come later.*

Right now, for the shopping centre, the decision area is simply "possible locations for a mall", maybe the old gas-station site, maybe another lot.

We'll detail options after. The important thing is to keep these categories in mind during your preliminary research: socio-economic context, community needs, how to improve commerce, whether to buy specific lots to develop housing or facilities, and so on. As developers, ask yourselves: how do you see this image? What

other options do you have to make the project profitable?

Student (developer): *In the end, our role is real-estate developer, so yes, profit matters.*

Facilitator: *Exactly. So what other ideas do you have?*

Student (developer): *If we place the mall here, we'd have to relocate existing housing—maybe build a new residential complex on this side.*

Facilitator: *Then your decision areas could be: "Where to locate a shopping centre?" and "Where to locate a new housing project?" Write those down, and think about what else emerges from them.*

Student 2 (developer): *We're writing on Canva because it's easier for us; we'll send it to you afterwards.*

Facilitator: *That's fine—just take screenshots and send them. At this point I just need screenshots; everyone's using slightly different tools.
[...]*

Prof. Marín: *These developers are very tyrannical—not very urbanist.*

Facilitator: *The examples are exactly in line.*

Prof. Marín: *So that the tension is noticeable.*

Facilitator: *What's going on, do you want cover the canal to build more stuff?*

Student (developer): *We're going to remove all the green areas.*

Prof. Marín: *That's not far from what many real developers want, which is why they shouldn't be the only decision-makers—though they often have the money and influence.*

Facilitator: *Keep writing it down; don't erase anything.*

Prof. Marín: *There are no "bad" ideas here; what you're writing are fears and pressures.*

Facilitator: *Don't worry. In another workshop a group wrote, "Should the line pass in front of my property without touching the house?" The questions were extremely general, but that's fine, we're working through the steps. For now, your role is "I want to make money; we're going to build a mall."*

Prof. Marín: *Exactly, where are you going to put it, and why? Think like developers: "Here in front of the station would be ideal; I want to demolish this block," and so on.*

Facilitator: *That whole area is under renovation, so in planning terms almost everything could be demolished. You can propose it. We just don't have all the maps at hand because of the Miro issue.*

Student 2 (developer): *Let's knock everything down and put up 20-storey towers.*

Facilitator: *Those are valid options, write them on your phone and send them. Be as tyrannical as possible; push the role to the extreme.*

Student (developer): *As extreme as possible, buildings on both sides, maybe even over the canal. is awfull*

Prof. Marín: *And keep that uncomfortable feeling in your stomach, so that when someone actually hires you to do this, you remember it and think twice.*

Facilitator: *A shopping centre that takes over the whole area, I love the ambition.*

Student 2 (developer): *Maybe even an underground section crossing under the canal and linking directly to the housing complex.*

Facilitator: *Great, that's very evocative. Remember that this area already has a deficit of green space—most of the south is short on parks—so you'd be taking away even more.*

Student (developer): *We don't care about the green zone; we'd pave it and build more towers if it pays.*

Prof. Marín: *Note that too, removing green space. Because that tension will matter when you compare roles.*

Facilitator: *So, that's your objective as developers: to rebuild everything for maximum return...*

Student (developer): *The so-called "recreational" area ends up on a private rooftop that no one else can access—a private collective space.*

Prof. Marín: *The most saleable area possible.*

Facilitator: *Write all of that down and send it in the chat.*

Student 2: *We'll send it to you; no problem.*

Facilitator: *It doesn't matter if it's not in the slides; just write it.*

Student 2 (developer): *I don't like typing on a keyboard.*

Facilitator: *Use your phone then, but please, type it somewhere. We're already more than half an hour into this.*

Prof. Marín: *We need something concrete so we can compare across groups.*

Facilitator: *Yes, we do. So now, look at your decision areas and start adding options. If you're the developers and you want a shopping centre, what are the possible locations? If you're the Mayor's Office and you care about green areas, where*

could you put those—next to the canal, over it, or somewhere else? List these options; you don't have to draw them yet.

Once the definition of each decision area had been clarified and organized with movable labels in the Google Slides presentation, each group (by role) provided an explanation of its respective decision areas. These were then reviewed collectively, allowing for corrections and the consolidation of a final list that avoided duplicate labels or overlapping concerns.

Each group took approximately two minutes to present, resulting in a total of eight minutes of explanations, followed by five minutes of corrections. This process served as the starting point for relating the decision areas to one another.

The Alcaldía Group: The decision areas focused on shaping how this urban corridor should function in daily life, presented with their own analysis drawing of the zones to work on (Their main adjustments based on the provided material left in the MIRO for their consultation and some further investigation though google maps, led to a bigger zone of influence and some edges (carrera 39) for prioritization of commerce)



Figure 57: USB_Mon. (Alcaldía): Decision Areas

- How can the axis where the stations would be located be maintained as a green corridor, with the quality of public space and serving as a connector between the stations?
– **Use of the canal**
- How can the sector achieve vacant spaces that can be complemented with facilities, that generate green areas and at the same time articulate urban itineraries to promote safe pedestrian mobility? Where should those vacant spaces be located? Would built blocks have to be emptied and which ones would they be?
– **Public space**

- How can the existing commerce in the sector be maintained and finally consolidated? Where would it be located? What relationships would it allow?
– **Commerce**
- What building typologies should the housing have so that spaces are created which contribute to city life and articulate urban itineraries? Should they be open or closed residential complexes? What would the density be like?
– **Housing**

The Developer Group: Overall, the real-estate developer’s decision areas focus on maximizing commercial profit and land value by aligning transit infrastructure, the canal, and public space with the interests of a shopping mall and high-income housing on their own words, “*tyrannical*”. They prioritized canal use for vehicles and commerce, privatized green areas, paid parking, and replacing existing housing with luxury complexes—going further by proposing demolition for “luxury residential complexes” and a massive shopping center built inside or above the train station.

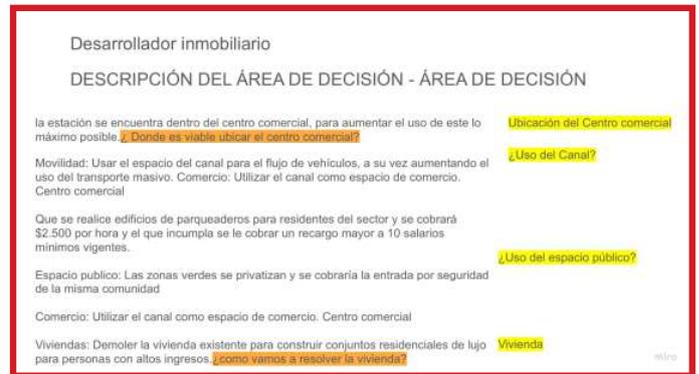


Figure 58: USB_Mon. (Developer): Decision Areas

- The station is located inside the shopping mall, in order to increase the use of the mall as much as possible. Where is it viable to locate the shopping mall?
– **Location of the shopping mall**
- Mobility: Use the canal space for vehicle flow, while at the same time increasing the use of mass transit. Commerce: Use the canal as a commercial space. Shopping mall.
– **Use of the canal?**
- Parking-garage buildings should be built for residents of the sector and a fee of 2,500 pesos per hour will be charged, and anyone who does not comply will be charged an extra fee greater than 10 legal minimum wages.
- “Public space: Green areas will be privatized and an entrance fee will be charged for the security of the same community.”
– **Use of public space?**
- “Housing: Demolish the existing housing to build luxury residential complexes for high-income people. How are we going to resolve housing?”
– **Housing**

The JAC Group: Their questions focused on mitigating negative impacts on local commerce and avoiding displacement. following the prepared example of “Should the project pass in front of my property without touching the house?”. and defined the decision areas as problems or questions to be asked and can become problems when the TCV is being implemented.

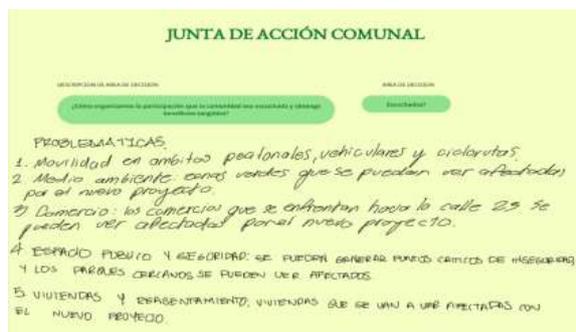


Figure 59: USB_Mon. (Developer): Decision Areas

- *Mobility in pedestrian, vehicular, and bicycle-lane environments.* – **Mobility?**
- *Environment: green areas that could be affected by the new project.* – **Environment?**
- *Commerce: the shops that face Calle 25 could be affected by the new project.* – **Commerce?**
- *Public space and security: critical points of insecurity may be generated, and nearby parks could be affected.* – **Public space?**
- *Housing and resettlement: homes that are going to be affected by the new project.* – **Housing and resettlement.**

s02_9-11 (7min): As the groups began mapping their specific areas of choice, they realized that despite their different roles (Alcaldía, Developer, and Community), their primary concerns were remarkably similar. The group identified a core set of five categories to anchor the graph: **the canal, public space, commerce, housing, and mobility.**

The process fabricating the decision graph though the links sparked discussions on how one choice constrains or enables another:

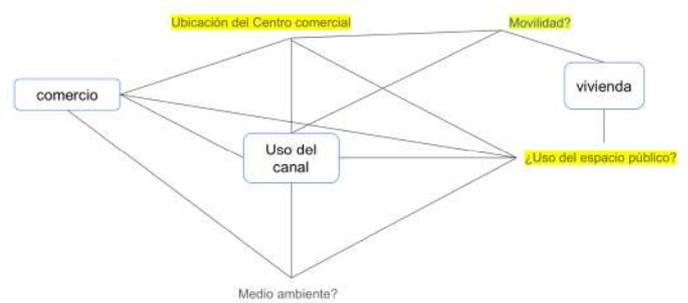


Figure 60: USB_Mon. Decision Graph (Group A collab)

Housing and Public Space: “one must be able to access the housing,” and any proposed residential units “must contribute to the public space”.

The Developer’s Logic: The developer group made specific comments about linking the location of the shopping center to the canal. Based on a “tyrannical” urbanist strategy to maximize profit by building over or even inside the canal, which they also linked to mobility by proposing the canal be used for parking or vehicle flow.

Total Interconnectivity: Participants observed that almost every area was interdependent. For example, they noted that mobility could not be isolated, as it naturally linked to commerce (for flow), public space (for access), and the environment.

Facilitator: We noticed some clear relationships in what you had written, and it is very important to start connecting them on the same slide. So we began organising them: for each category that looks like a decision area, the idea is to relate it to the others with lines. In many cases the patterns were very similar.

Prof. Marín: They had canal, public space, commerce, housing and mobility. That was the next step.

Facilitator: Right now the idea is to link, for example, housing with mobility, or with public space, or with the canal. We will all do this together—five minutes, very quick. What do you see as related? “Location of the shopping centre” is linked to what? To use of the canal, to public space, to commerce, to housing?

Prof. Marín: It’s also linked to the use of the canal, because you were proposing to build over it.
[...]

Facilitator: Public space, good. Commerce, good. I deleted a couple of lines by mistake; technology is not on our side. The idea is that everyone keeps adding connections.

“Location of the mall”, I love that one. You even suggested parking on top of the canal, covering it. You also had the idea of using the canal as a mobility corridor, which is part of public space.

So all those relationships you mentioned should start to appear here. Yes, they have to be related. And mobility?

Prof. Marín: Mobility with public space.

Facilitator: Only with public space?

Prof. Marín: With space, with housing, with environment, with commerce.

Facilitator: So does everything need to be connected? Does everything have to be movable, or not?

Student 2: I linked housing with public-space use, because people have to access the housing and residential complexes somehow..

Prof. Marín: And the new homes that might be proposed there will also depend on that.

Facilitator: Exactly, do they contribute or not? Are we saying environment is only related to canal use? Is public space only linked to housing and environment? Is mobility only connected to the shopping-centre location? That poor “housing” node was completely crossed out.

Prof. Marín: Then we reorganise it. We look again and see which nodes connect to which. For example, public space obviously sits next to these others. You’ve already extended some links—I think the idea is clear.

[Explanation of how to organise the decision graph with categories, following Friend and Hickling’s example, and then move toward a problem focus.]

Prof. Marín: You can create several clusters. One could be for a different kind of project. Another might be a commercial focus: commerce, mobility and canal use.

Facilitator: Those four go together.

Prof. Marín: Yes, that would be a big issue to work on with market-oriented developers.

Facilitator: So that cluster goes down here. If you

understand this exercise, the point is that we cannot solve everything at once. It is much easier if we isolate certain problems or questions we hadn't explicitly asked yet. Now I'd like each of you to mark, with a little star or the colour already used, which of these problem clusters seems most relevant to develop further. Do you prefer the pink, the red, the blue or the yellow? Everyone votes, and that way we decide which category we'll work on. I'll write them here and we'll put dots on them.

Students were encouraged to use the resulting graph to “redefine or group similar decision areas” when the initial list felt too long or complex, and the exercise then shifted into selecting a Problem Focus. Once the graph was saturated with links, participants drew loops around related sub-groups and voted on which cluster to prioritise. The red focus, centred on the canal, environment and public space, received five votes and was chosen as the main focus.

By concentrating on this node cluster, students could work on a manageable set of issues—what should happen in and around the canal, how public space should be configured, and how environmental concerns should be addressed—instead of trying to solve the entire graph at once. As time ran out, they were asked to write down some options for each decision area—many already discussed—so that the next session could continue the process without losing momentum.

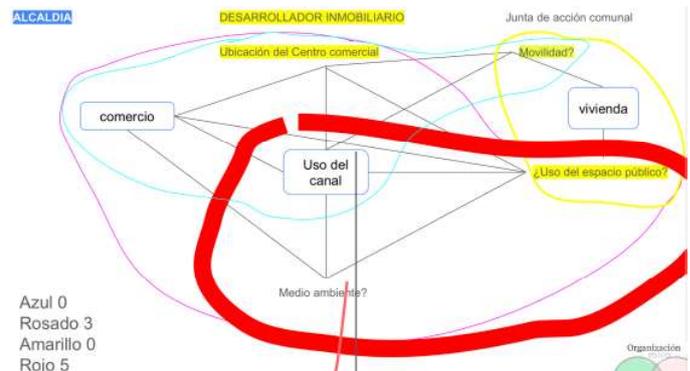


Figure 61: USB_Mon. Selected Problem Focus (Group A collab)

Session 3 - Designing and Comparing On the application of SCA_non UA

October 27th, 2025
(9 participants)

s02 4-11 (3 min): Students revisited the labels and questions defined in the previous session for their roles (Alcaldía, Developer, and JAC). They then recalled the selected Focus problem, using this as a moment of reflection from the previous sessions to gather the initial ideas they had proposed as options or solutions for the decision areas within that problem.

s02 12b (35 min): The transition to the Designing Mode was made as a request to move from broad questions to mutually exclusive Options, there, groups were asked to propose at least five specific solutions for each Decision area on the focus problem. Due to a lack of motivation, interest, or energy, students were given pen and paper to write down their ideas for possible options.

This approach was also prompted by connection issues with the platform in earlier sessions, including the introductory one, where slides and images kept shifting or failed to load. These difficulties highlighted the need for alternative plans when producing materials. As a result, students were asked to write their ideas on paper and later transfer them to post-its on the platform —ideally serving as the labels of the decision option— allowing the rest of the Design Mode concepts to be managed collectively with the class.

Prof. Marin’s idea to add “labels with surnames”—specific tags rather than general terms. became important to ensure clarity in later comparisons. This adjustment was necessary because many different ideas were being

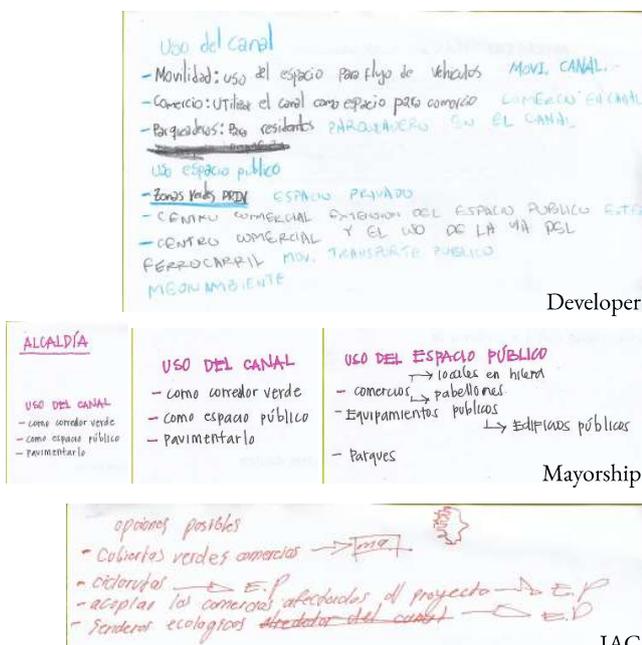


Figure 62: Developer’s, Mayorship’s and JAC’s hand-written option lists for the decision areas. (Group A collab, see appendix f for translation)

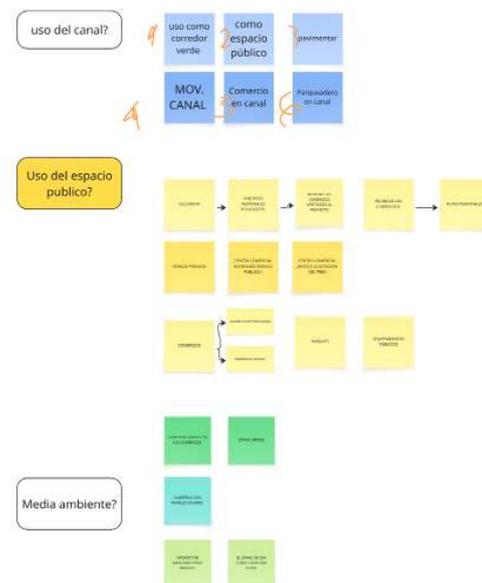


Figure 63: Group A’s decision options transcribed into digital post-its in Miro, organizing alternative uses of the canal, public space, and environmental strategies for subsequent exercises in the Designing mode (group A collab, see appendix f for translation)

grouped under the same label (following the categories list as a label instead of making a new one), as students had interpreted the category guide itself as a label to be shared with the group as a decision option.

An example of this surname is: instead of simply using “**mobility**,” students applied labels like “**mob-vehicles**” to ensure clarity in later comparisons. In addition, some options open a debate, a significant interaction occurred when the developer group proposed pavement (paving) the canal for transport or commerce. While controversial, the facilitator accepted it as a valid strategic option to evaluate.

Facilitator: *So we’ve narrowed it down to these three decision areas. The idea now is to define the different options that each area can have. I gave you some examples linked to each role. In this exercise, we’ll do the same again: short labels plus a brief description that help us “solve” each decision area. Each group is responsible for one, and you’ll write the options for it. If the exercise is clear, we can begin.*

Prof. Marín: *Create three labels: “use of public space,” “environment,” and “use of the canal.” Now, think back to the solutions you had already started to discuss. We’re going to describe those solutions and then turn them into tags—aim for at least five per decision area.*

Facilitator: *For each of you, I have paper here if you prefer to write by hand. Each person should try to define at least one option (or more) for these three decision areas.*

For example, how would the Mayor’s Office address activation, the environment, or canal and public-space use? The developer group already had a strong idea about how to use public space. The idea is that you list all the possible options for each area. I’ll copy them onto the shared file; any

option you can think of is valid at this stage.

Prof. Marín: *Can you all see the second set of sticky-notes? The system is not showing them for everyone, so I have to adjust it, but I already told you about them.*

Facilitator: *Are all the students able to see the board?*

Prof. Marín: *Around twenty-two of them aren’t visible to me yet.*

Facilitator: *How are you doing with “use of the canal”? You already had some ideas.*

Student (developer): *Pave all of it.*

Facilitator: *Yes, that’s one option, and I’m taking it seriously, even if it sounds extreme.*

Student 2 (developer): *Or turn it into a strip where only bridges for commerce cross it, so it becomes pure commerce.*

Facilitator: *Remember the options you’d already written in Miro; I’ve left them there. Review what you wrote and keep developing those ideas here. I think your earlier notes already contained several options, so we can start from those. The key is to be specific. For example, that idea belongs mainly under “use of public space”, not under mobility. For environment and canal use, you had also written several things, those can be refined as options.*

What we need now are options that may connect two labels at once.

Student: *Sure.*

Student 2 (Mayorship): *We want to propose ecological trails running beside the canal, but we’re not sure whether that goes under “use of the canal,” “public space,” or both.*

Prof. Marin: *Under canal use, or public space, or both?*

Facilitator: *In principle, each option should belong to just one decision area. For now, the exercise is to create different options within each area, and later we'll compare options across areas to see how they combine. For example, one option under "use of the canal" could focus on crossings, and another under "public space" could focus on pedestrian paths. They relate to each other, but stay in different areas. You might also add an option under "use of the canal" that reimagines it as a sequence of small, floodable spaces; that one clearly belongs to the canal, though it has environmental implications. The key is that each label is specific and distinct, so we avoid what happened last time, when very different ideas ended up with almost identical tags.*

Student: *There aren't five options for every topic.*

Prof. Marin: *If you can, make each tag a bit more precise, almost like giving it a "last name." Don't just write "mobility"; if your option is about vehicles, you might label it "mobility – vehicles" or "vehicular mobility". That way, if another group has a mobility option, we can still tell them apart. We'll be working only with these tags in the next exercise, so they need to be understandable by themselves.*

Facilitator: *Exactly. You can keep writing where you are, take a photo, and upload it later, but try to keep the tags on the shared platform if possible—or at least copy-paste them into the slide I left for that.*
[...]

Student (developer): *One idea was to privatise the parks and charge for entry—basically privatise public space. But then it wouldn't really be "public" anymore.*

Facilitator: *Right. In that case you're talking only*

about the parks, not the sidewalks. The remaining public space would be mainly sidewalks and pedestrian circulation. That's fine as an option, now I need more. You're three people; you should be able to generate several distinct ideas.
[...]

Facilitator: *As you propose options, make sure they're clearly different, not just small variations. For instance, if you're thinking about a bike path, one option could be that all schemes include a bike path, and another that none of them do. This contrast will make comparison much easier later, when we look at consequences.*

Student (mayorship): *Oh, now I understand.*

Facilitator: *In the next phase we're going to compare options with each other, so it helps if some options are clearly opposite. For example, regarding affected businesses, one option could be to integrate them into the project; another could be to relocate them elsewhere.*

Student (mayorship): *Okay, so we need opposite options: one where we integrate the businesses, and one where we move them.*

Facilitator: *Exactly. And you can also add a third, very different option if you like. Remember, there are three decision areas, use of the canal, use of public space, and environment, so you should think of options for each. For environment, you had already mentioned at least one idea.*
[...]

Student (developer): *For "use of public space," we thought of letting the commercial sector expand into it.*

Facilitator: *So the ground floor becomes more commercial for anyone who passes by—yes, that's a valid option. I know your role is to monetise everything, and in reality some popular places do charge for access; that's precisely the type of ten-*

sion we want to capture. Let's upload those ideas, because as soon as the professor arrives we'll move to the next exercise.

Student: Okay.
[...]

Facilitator: Not just "green roofs," as in "put something there and let it grow."

Student: But maintaining them isn't cheap.

Facilitator: Exactly—that's why we should write it clearly so we can later weigh the costs. Note it down so that when the professor comes back we can include it in the comparisons.

What do you mean exactly by "extension of public space"?

Student: The last name that professor said to put, so that it is better understood.

s02 13-14b (31 min): The two compatibility methods: the **Option Bar** (Figure 64) and the **Option Graph** (Figure 65), were introduced with a simple example of incompatibility, likened to putting chocolate on pasta: it is possible, but usually does not "fit," depending on taste. One group preferred the table format for its "squared-off" organisation and used it to compare canal use against public space and environment. Another group chose the graph to visualise links, because it allowed them to compare all three dimensions simultaneously on the same level.

Although ruling out compatibilities in the table felt more orderly and easier to read, it demanded the full attention of both subgroups, and much of the time was spent waiting for each person to decide whether a cell was compatible before agreeing on a final mark. In practice, the table

can remain simple (two decision areas) or become more complex, with several areas against several areas; in every case, the first step is to copy each option into its own row under the appropriate decision area. Once the table or circular diagram is set up, groups mark each pair of options as compatible or incompatible (for example, with an "X" or a small circle), progressively revealing which cross-area combinations can work together and which must be excluded.

OPCIONES	USO DEL ESPACIO PÚBLICO				MEDIO AMBIENTE		
	CENTRO COMERCIAL	ESCALONATA	PARQUES	EQ. PÚBLICOS	CURBANA VERDES EN COMERCIO	CURBANA CON PASARELAS SEQUEAS	ZONAS VERDES
canal	X	●	●	●	X	●	●
canal con espacio público	●	●	●	●	X	●	●
pasadizo	●	●	X	●	X	X	X
canal central	●	●	X	●	X	X	●
canal con espacio público	●	X	X	X	●	●	X
canal con espacio público	●	●	X	●	X	X	X

Figure 64: USB. Mon: Option Bar (Group A collab; for translation see appendix f)

Facilitator: We already have several elements here: *public space, environment, the route, and the parks you drew on the boards.* Since there were no additional options for public space, let's group that set as a single option: *bike paths, extra pedestrian paths, and their integration with the shops; that corresponds to "relocation of shops and pedestrian routes."* Below we have commerce, and then private space, which I labelled "*shopping centre and parks.*"

[seeing the miro board action] Good, that matches what you were working on. **Remember:** a circle means compatible and an X means incompatible. For each cell we ask: is using the green corridor together with a shopping centre compatible or not? For example, is using the green corridor as a bike path compatible with using it as a park? In that case, compatible. But then

there's that zero between "commerce" and "green corridor"...

Prof. Marin: *Commerce with a green corridor—does that work or not?*

Facilitator: *If you think it's incompatible, then we put an X. You can use the circle symbol next to the table or simply draw your own mark; there are several ways to do it. Let's keep going row by row.*

Prof. Marin: *They're working through the first line.*

Facilitator: *If we go line by line, everyone can follow. So: is a green corridor plus a park compatible or incompatible with a public facility? Compatible or incompatible? Compatible.*

Next: green corridor plus green roofs over commercial buildings—compatible or incompatible?

Prof. Marin: *You said you wanted commerce underneath a green cover.*

Facilitator: *Right, green roofs, solar panels... in your project the question is whether that combination works. If the roof is covered twice (with plants and solar panels) it could still be compatible, because you can mix those uses.*

Prof. Marin: *You could have roofs for panels and other roofs for green areas, plus public facilities and the station.*

Facilitator: *Yes, we have "green roofs" and "roofs with solar panels" as separate options.*

Prof. Marin: *Even then, it can still be compatible.*

Facilitator: *Let me check. I'm scrolling on the iPad...*

Prof. Marin: *Look, there's an extra roof option there.*

Facilitator: *Yes, that one was odd.*

Prof. Marin: *Now it's only the green ones.*

Facilitator: *Great, we're finishing the column. This is the table before deleting anything by mistake. This is how the whole grid gets built. The nice thing is that you can do it between just two decision areas, or you can compare all of them by putting three across and three down. You could even add the remaining areas at this point and get a kind of "staircase" scheme we'll see later.*

Prof. Marin: *Continue with public space versus shopping centre.*

Facilitator: *Public space and public facilities, compatible.*

Prof. Marin: *Green roofs with commerce, they can work together in public space.*

Facilitator: *Yes, but you need to be consistent: for example, "green roofs over commerce" with "use of the green corridor," as one group defined it, might be incompatible. So you decide, following the logic of your project, whether that pair is compatible or not.*

Prof. Marin: *And which cells are still undecided?*

Facilitator: *How many boxes are left?*

Prof. Marin: *Today nothing can be missing—and if it is, they'll tell us.*

Student: *Well, obviously not.*

Facilitator: *Are you marking it as compatible or incompatible? If we're unsure, it's better to leave it as incompatible; otherwise we'd have to pave something we don't really want to move.*

Prof. Marin: *I'd rather they leave it out; that one would be partially incompatible.*

Facilitator: *Decide, please. It's better to be clear.*

There are other paving types before we jump to fully sealing public space.

Prof. Marin: *The latter is also incompatible.*

Facilitator: *Cancel that pavement.*

Prof. Marin: *“Mobility in the canal”, what does that mean? Cars running over it?*

Facilitator: *Sorry?*

Prof. Marin: *Covering the canal and driving on top?*

Facilitator: *Despite the suffering it causes you, I don't want it. Because they are going to die.*

Prof. Marin: *The shopping centre on top of that—no, that's not what we want.*

Student: *Since there's already a canal, it wouldn't make sense. No, I would say incompatible.*

Prof. Marin: *I agree, it's incompatible.*

Student: *Unless it were some kind of green-covered structure... so, incompatible for now.*

Prof. Marin: *If it's not commerce directly over the canal, maybe; but as you've drawn it, no.*

Student: *Commerce with green roofs over the canal doesn't really work..*

Facilitator: *They're going to put “cabbage” on top of everything!*

Student: *It still doesn't feel right.*

Prof. Marin: *I might personally oppose it, but that doesn't mean I'm right. For “parking on the canal plus shopping centre,” again, you must decide.*

In contrast, the compatibility exercise with the Option Graph flowed more easily, perhaps because only one group worked on it with similar ideologies, or because marking preferences made tracing and defining much simpler. In this case, the group used both methods: black lines to indicate compatible options and red links to show incompatibilities, though the outcome may not have been fully understood since only four complete connections were made.

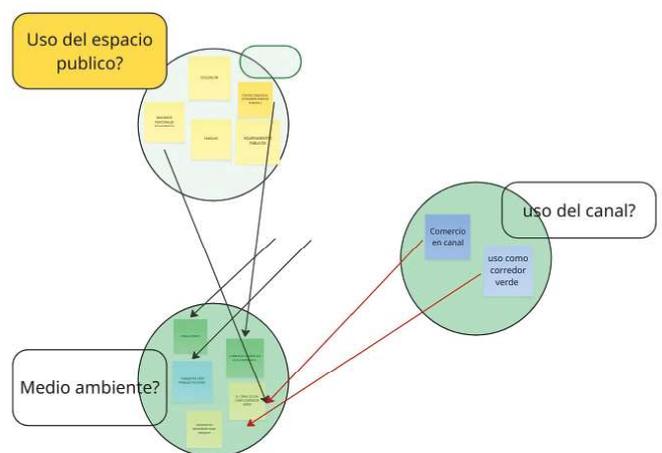


Figure 65: USB. Mon: Option Graph (Group A's Mayors; for translation see appendix f)

s02 15b (20 min): With compatibility established, the next step was to configure decision schemes, ruling out any options that proved incompatible at any stage of the process based on the preferences identified in the compatibility exercises.

As the groups worked on completing the compatibility table and graph, the facilitator organized the foundation of the decision scheme. The challenge was the sheer number of options, which made it seem impossible to finish within the limited time by canceling incompatible routes one by one to reach a final set of schemes. Prof. Marin therefore suggested that each group select a preferred route or option to fo-

cus on. Since this was the final session and it was clear that the ultimate “choosing” stage could not be completed, advancing with the schemes was essential, as they formed the basis for the following exercises and, most importantly, for the final assignment requiring a sketch and specific recommendations.

Facilitator: *Overall, the matrix is built by listing the different options and then, using your compatibility results, eliminating the combinations that do not work. In practice, we cancel the paths that are incompatible and whatever remains traces possible routes toward final design schemes. In the example, an X shows that one option is incompatible with the next, so we stop that chain there and continue testing other options until we obtain several viable decision schemes. In short, a decision scheme is a set of compatible options that together form one design alternative we can actually analyse and develop in our architectural project.*

As I said at the beginning, architects often prepare at least three alternatives for a client—one the client will probably like, one we prefer as designers, and an intermediate one; the schemes here work in a similar way. With your help, I’m asking you to build that base: lay out all the options in the matrix and then start crossing out those that are incompatible according to the comparisons you already made. The exercise now is simply to cancel or keep combinations based on whether they were judged compatible or incompatible, does that make sense?

Prof. Marin: *Looking at the matrix, they can see it clearly.*

Facilitator: *I’ll keep copying and pasting the other options in.*

Prof. Marin: *The ones that belonged to each set—then you just cross out those already marked as incompatible.*

Facilitator: *Exactly. By doing that, we narrow down all the possible routes, so the next exercise will be much more focused. The other decision area is environment, so you also need to make those connections.*
[...]

Facilitator: *We could spend a long time exploring every possible combination, but we don’t have that much time and need to move on. So now each group should select at least one decision scheme, a complete route through the matrix. In practice, that means choosing a coherent chain of options, for example a specific use of public space, plus a bike path, plus green roofs over commercial areas. Does that make sense?*

Prof. Marin: *Think about which one you want to work on.*

Facilitator: *Do you understand this part? To speed things up, choose one scheme now.*

Prof. Marin: *If we did the full exercise with all schemes, it would take much longer.*

Facilitator: *At this stage we’re not going to develop every scheme; in the end we’ll keep three, and each of you will work on one. So, as a group, pick the scheme that interests you most and we’ll continue with that one, okay? I need more answers. I was also thinking we could choose four and distribute them among us. You have to decide: which one would you like to work on?*

Prof. Marin: *Use as a green corridor park.*

Facilitator: *OK, one scheme is “use as a green corridor/park.” Which others interest you? As developers of public space, which option do you want to take on? The professor and I have selected one; you can now select another option, another scheme, to work with.*

Student: *Public space with shopping centres.*

Facilitator: *That works. You could work on more than one, but for the comparison exercise the idea is that each group chooses just one scheme. You've already discussed them, so now write it down as, for example, "Developer: Option A" or "Option B."*

Let's decide: one, two... done. Perfect, all four groups have made their choice. I'll note it: who chose blue? (JAC.) Okay, done. And pink? Pink goes with this developer group. Great, now we move to the next part.

Everything we've done so far today has been the design phase; after design comes the comparison phase. At this point it's crucial to define how we are going to compare the different schemes and which one we will finally choose.

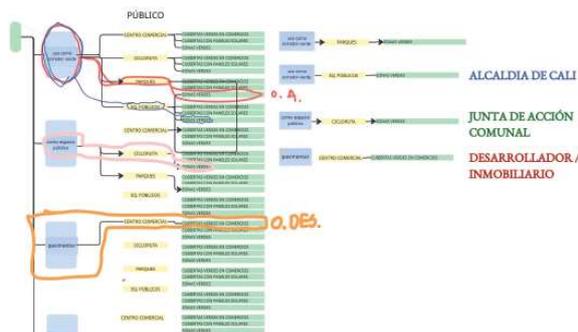


Figure 66: Selected Schemes per Role in the Compatibility Table. (Group A collab, for translation see appendix f)

The schemes per role goes as follows (order: of Canal Use - Public space - environment)

Alcaldia:
GREEN CORRIDOR → PUBLIC FACILITIES → GREEN AREAS

JAC:
PUBLIC SPACE → BIKE LANE → GREEN AREAS

Developer:
PAVE OVER → SHOPPING MALL → GREEN ROOFS ON COMMERCIAL BUILDINGS

A group proposed a scheme that envisioned the canal as a green corridor with parks and areas for social interaction. The facilitator emphasized that such schemes illustrate the range of “alternatives” an architect presents to a client, spanning from what the client desires to what the architect recommends.

s03 1 (1h 15min): As the session went on, participants became noticeably unresponsive and even drowsy, so for the next, more creative activity they were asked (in groups) to define their own comparison areas, each group receiving a marker and a section of the board to note what they considered most relevant for judging whether a scheme could work. The workshop thus shifted into the Comparing mode: students defined criteria for evaluating schemes and highlighted the values guiding their decisions, such as capital investment, income flows, local employment, and residents’ quality of life. Describing these comparison areas, explaining them, and writing concept-values with short labels (e.g., commerce, environment, mobility) took about 20 minutes.

Facilitator: *This is where those value concepts from the beginning come back—what really moves you when you choose one option over another: the financial side, expected income, the jobs a project creates, or its broader impact on people’s lives. The idea now is to repeat what we did before: write a brief description of what you want to compare and give each aspect a clear label.*

To make decisions using the schemes, the facilitator stressed the need for “concrete information: roughly how much income each scheme might generate, how many people could come to the place, and how it behaves in terms of location, mobility, and socioeconomic conditions.” Seeing that students were getting sleepy,

they suggested a brief pause to stand up and stretch, noting that *“there is only a little left.”* (see figure 67) The next exercise was then introduced: working with NotebookLM, *“an AI tool that is actually quite fun to use,”* so the class moved to the board, rearranged materials, and set things up to avoid losing any work.

Once comparison areas had been defined and each group had presented the reasons behind its criteria, the class entered the AI phase, where every student had to complete their own NotebookLM notebook, using those collectively defined comparison areas as a starting point. For example, the Developer group emphasized ROI (Return on Investment) and commercial absorption, while the Community group prioritized cultural identity and accessibility.



Figure 67: Picture of Group A, while writing the Comparison Areas (Source: Picture taken by Author)

Photos of the group’s comparison areas were taken and sent to the professor (see figure 68), who transformed the comparison areas and their associated comments—ranging from proposed solutions to non-negotiable conditions—into source documents for the AI study, NotebookLM was presented as an “AI research assistant” to process the research notes and score the alternative schemes against the agreed criteria, producing relative ratings on a 1–5 scale.

With those materials loaded, it became clear that this version of the platform did not let students query the sources directly, imposed a word limit on each question, and forced prompts to be shortened, so the instructor centralized the process by collecting texts via WhatsApp, uploading them as notes and sources, and crafting more concise questions, which generated helpful but still fairly general responses for the Group’s notebookLM.

Facilitator: *We’re going to write down which actor you are, and you’ll note the responsibilities that actor has, its objectives, and a relative evaluation of the comparison areas, the ones you saw in the photo.*

Prof. Marin: *So you’ll use those comparison areas from the images I uploaded.*

Facilitator: *In this underlined section, I need you to give at least one type of rating scale, say, from 1 to 5, with 5 as the best and 1 as the worst. In NotebookLM, the link is in the WhatsApp group. It already contains a lot of information on the Green Corridor and the SCA book, so the AI has a base to work from. But if we’re going to use AI, it’s crucial that we are very clear about what we’re asking and the context we give it. We’re working in a specific area, so if we later used ChatGPT or another AI, it should also know exactly where we’re working.*

Prof. Marin: *In NotebookLM, where it says ‘Upload’, that’s where you add the images. [...]*

Prof. Marin: *Notebook is only going to consult the sources you upload. Think of it as a research assistant for your own projects, where you decide which bibliography or notes it can read. You don’t want it inventing things from random web sources; you want it to process material you’ve already checked. In real practice, you read the*

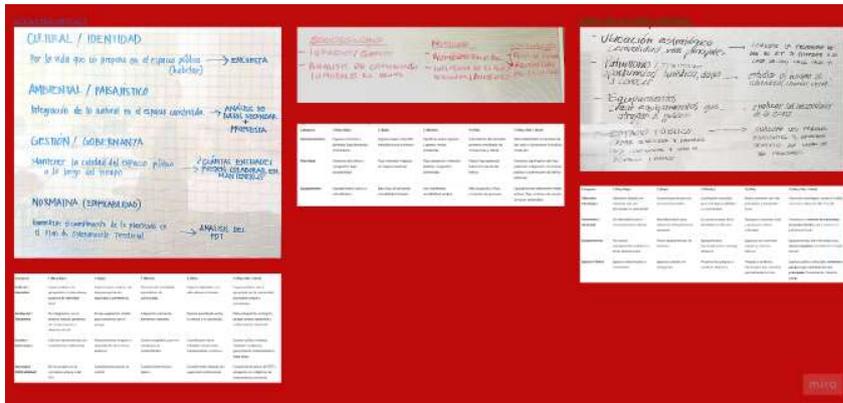


Figure 68: (top) Pictures of the comparison areas made in the white boards, in order: Mayor, developer, JAC.

(bottom) AI generated tables about the ranges of "value for the comparison areas, example, if the condition described is fulfilled that would be its score.

Source: Pictures: Taken by authors on group's comparison areas
Table: NotebookLM generated

sources first and use the assistant to help you filter and connect them—but you stay in control. AI is like a vehicle; it doesn't drive itself.

Facilitator: *Those three PDFs you just saw—socioeconomic analyses and strategy documents—will be your sources. NotebookLM sees them as 'economic analyses', so it can help with those comparison areas.*

Prof. Marin: *There are thirty sources in total, but right now you'll only use these three for the question you're going to ask. You have to explain to it what they are, for example, 'starting from the source Socioeconomic Analysis and Strategies...'*

Facilitator: *The process is a bit complex, so I'm leaving you the prompt. You just have to copy and paste it into NotebookLM. The first paragraph is context: it says where the project is located and what you're looking for. The next part tells the AI what you want it to do. Once you understand that, you have the full context; then you only need to complete this line here: 'Considering that I am actor X...'*

Prof. Marin: *For example, 'Considering that I am the municipal Mayor's Office...'*

Facilitator: *...or 'the neighbourhood Community Board', or 'a real-estate developer'—okay. We also specify whether the developer is 'aggressive and focused on high profitability', or whether the*

community is more vulnerable, and so on. This gives the AI a sense of how we are thinking; it does not replace your own responsibility for the subjective parts of the decision.

So what's the idea? Considering the actor, their responsibilities, their goals (what they really want) and the comparison areas, you'll now ask NotebookLM to rate the schemes. You'll refer to the three notes (comparison areas) we defined in class and use them to guide the AI's evaluation.

Prof. Marin: *The context text is already written. You just copy it and paste it*

While the facilitators were preparing material for NotebookLM, they ran into technical issues. The original board photos could not be uploaded, so the JPG images were converted into PDFs to improve readability, and language inconsistencies between English and Spanish were adjusted. At the same time, students were reminded to shorten and clarify their prompts because the platform restricted both permissions and question length. They sent their prompts via WhatsApp to the professor, who, once the images were organised as sources in NotebookLM, manually entered each prompt and obtained the relative-evaluation tables and ranges.

Deliveries - Group A: SCA (non UA)

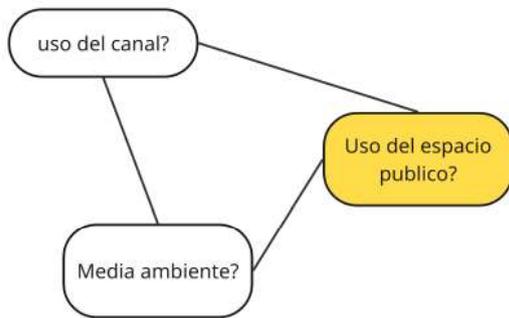


Figure 70: Selected Problem Focus (Group A collab)

As a reminder, the focus problem of this group, was concerning the use of the canal, the use of the public space and the environment.

After 21 schemes, the groups selected the following complementary options to keep working on:

Alcaldia:

(Green Corridor → Public Facilities → Green Areas)

JAC:

(Public Space → Bike lanes → Green Areas)

Developer:

(Pave Over → Shopping Mall → Green roofs on commercial Buildings)

It became clear that the main concern for each group centered on the canal's environmental and commercial uses. Their visions were sharply opposed: some proposed covering it to enhance vehicular mobility, while others insisted on preserving it as a green axis.

For the comparison areas, the criteria for choosing the best option were framed around the principles guiding each group's proposal for the site. With this in mind, groups developed their own ideas for comparison, focusing on aspects such as **socioeconomic impacts, mobility, facilities, effective public spaces, heritage/identity/cultural concerns, environmental factors, and the management and regulation of buildability**. Each area was evaluated to varying degrees, assigned a grade, and used to determine which proposal was considered stronger.



Figure 71: Decision Scheme (Adapted by Author)

Deliveries - SCA (non UA) group Alcaldia (Mayorship)

OCF+MEM+MCZ

Chosen Scheme: Use of the canal as a green corridor while maintaining the urban axis for locating the stations.

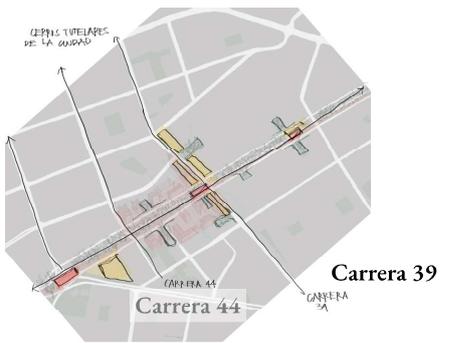
Central Argument:

The scheme aims to use the stormwater canal and the future commuter rail as a green corridor equipped with public spaces for citizen gathering, enabling safe and adequate articulation among the stations located along it. In addition, different green areas and facilities would be implemented to connect the surrounding context with this major public-space axis.

Key Options:

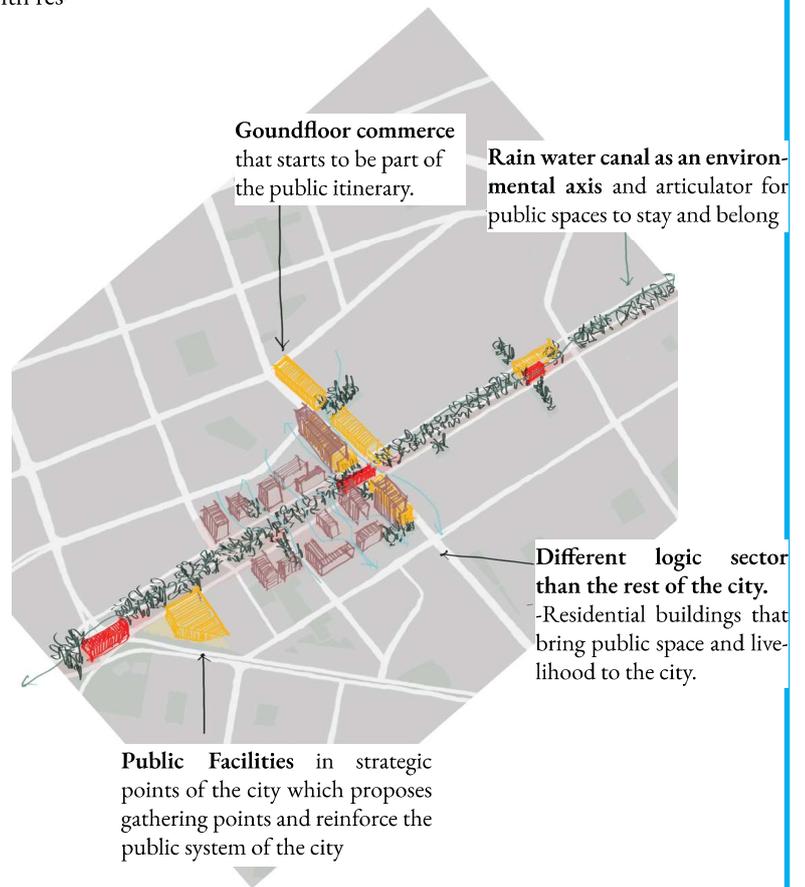
- Use of the canal as public space.
- Use of the canal as a green corridor.
- Creation of empty/open spaces complemented by facilities that support urban itineraries within the sector and in connection with the city.
- Maintain and consolidate commerce in the sector.
- Building typologies for housing that contribute to the public-space system and articulate well with residential uses.

emblematic hills of the city



Legend

- Facilities or commercial uses
- Parks, green areas / public space
- Built space
- Main streets
- Study area



Overall, the image proposes a cohesive urban strategy that blends environmental features, commerce, housing, and public services to enrich city life.

Figure 72-74:
Schemes and diagrams from Alcaldia_A

- 72 (top-left): Schematic context
- 73 (bottom-left): Zoning
- 74 (right): Identification of volumes

Deliveries - SCA (non UA) group JAC (community action board)

DP+MV+JP

Chosen scheme: Corridor as public space and sustainable mobility.

Key options:

- Use of the canal: As a green corridor.
- Use of public space: Pedestrian paths.
- Environment: Green roofs and ecological trails.

Central argument:

The project seeks to revitalize the street by using the canal as a green corridor, integrating public space with pedestrian paths that foster sustainable mobility and citizen encounters. Through green roofs and ecological trails, it promotes environmental sustainability and the connection between nature, infrastructure, and community, contributing to a more sustainable and balanced city.

Success criterion:

What is the “comparison area” where this proposal is unbeatable? Financial viability and safety of the sector, since by proposing several businesses and green corridors the aim is for the place to be more frequented, providing safety and financial viability.



- Green corridors
- Canal
- Main streets (Calle 25)
- Ecological paths that connect both sides of Calles 25 and 26
- Shops with green roofs

This proposal, is more concern on the environmental aspect and i believe, enhance the connections that are already establish, instead of a extreme change of the sector,they are just keeping the ide of a green corridor along the TCV and water canal.

Figure 75:
Zoning form JAC_A

Deliveries - SCA (non UA) group Developers

JJD+SJ+MJE

Key options:

Location of the shopping center: Integrate the station inside a large shopping center that concentrates commerce, mobility, and services, maximizing its use and the flow of people.

Use of the canal: Pave the canal and turn it into a vehicular access road with an underground stormwater conduit, lined with shops and loading/unloading areas.

Use of public space: Public space is managed and maintained privately; green areas are replaced by hard surfaces with controlled access and security.

Housing: Replace current housing with luxury, high-density residential complexes aimed at middle- and high-income populations, taking advantage of the increase in land value generated by the TCV and new commerce.

Real estate profitability: Commerce on all ground floors, paid parking, and vertical mixed uses that ensure a permanent economic flow.

Central Argument:

The scheme maximizes the profitability of the corridor by transforming the canal and its surroundings into a fully built-up, paved axis. Our scheme is the most profitable and economically viable because it transforms the corridor into an active, productive urban axis where infrastructure, commerce, and high-density housing are integrated to generate a self-sustaining development model. By paving the canal and turning it into a functional mobility and drainage system, land use is optimized, maintenance costs are reduced, and the durability of the intervention is guaranteed.

The introduction of commercial uses on all ground floors and the construction of mixed-use projects (shopping centers, housing, and services) enable dense, profitable occupation, attracting private investment and boosting the local economy. In addition, the partial privatization of public space ensures its maintenance, control, and security, improving urban perception and creating an attractive environment for residents and users.

Overall, this scheme turns the corridor into a new axis of real-estate development, increasing land value, generating sustained income, and consolidating Santa Elena as a strategic node for urban and commercial expansion of the Green Corridor and the Tren de Cercanías del Valle. It is a productive corridor where private investment drives urban modernization and economic growth.

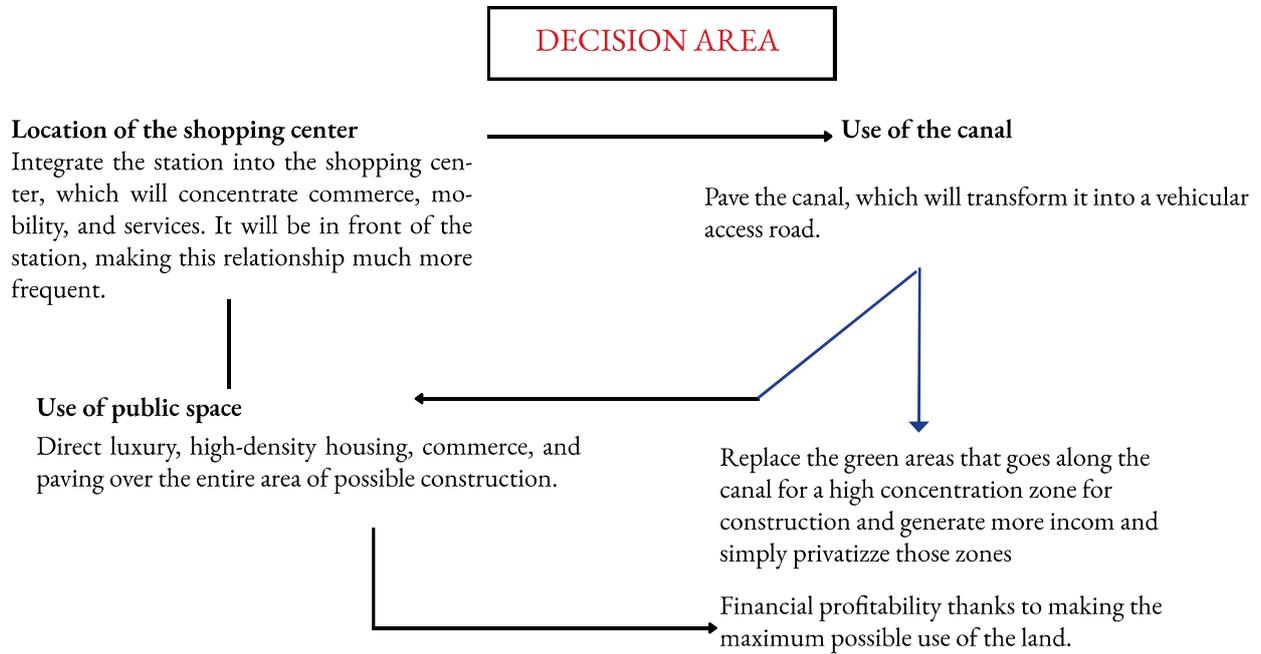
Success criterion (unbeatable area):

Financial profitability and full land-value capture. Our proposal is unbeatable in terms of return on investment, real-estate appreciation, and economic viability, turning Santa Elena into a high-value strategic urban pole.

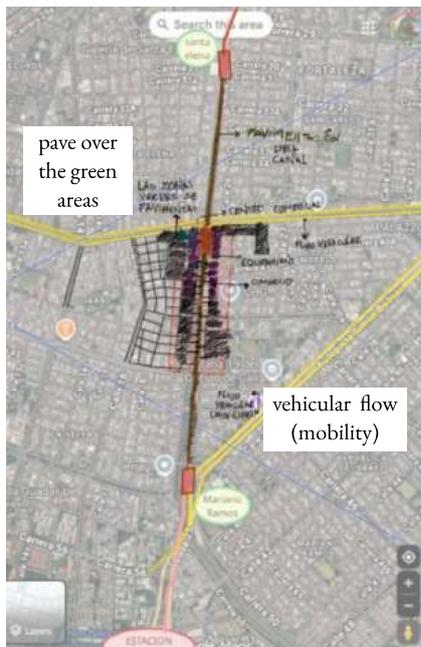
Deliveries - SCA (non UA) group Developers

JJD+SJ+MJE

ENTREGABLE 1



The overall idea is that all existing green areas would be converted into paved public or commercial space, with public facilities and the shopping mall positioned immediately adjacent to the station.



Figures 76-77:
Zoning form Developers_Mon (figure 77, redrawn by author for resolutions's sake)

Surveys

From group A surveys, the workshop was perceived as highly useful both pedagogically and strategically, while also revealed concrete technical and pacing issues that should be addressed in future iterations.

Students consistently **rated the workshop with 4–5 out of 5** for overall usefulness, especially regarding **how it helped them structure and organize project ideas instead of relying only on intuition**. They highlighted learning new strategies to analyze architectural and urban problems and to take decisions with more explicit criteria, which supported clearer thinking about realistic options for the Green Corridor. Interactivity, group work, and listening to diverse perspectives were repeatedly mentioned as the most valued elements, reinforcing the workshop’s collaborative learning value.

The activities helped students recognize that the Green Corridor and Calle 25 involve multiple, sometimes conflicting viewpoints, rather than a single “correct” solution. **Many indicated that the process challenged earlier assumptions about what should be done in the corridor, pushing them to consider trade-offs around mobility, public space, and environmental quality**. The workshop also focused students on the main dimensions of decision-making—such as identity, security, and mobility—making the decision context more explicit and less purely intuitive.

Although the overall evaluation was positive, participants expressed frustration and disappointment with the platform, particularly due to time constraints and recurring connection issues with Miro. Many felt that certain activities were rushed, highlighting the need

for more time to consolidate learning, receive step-by-step guidance, and engage in deeper discussion and reflection. Suggestions for improvement included incorporating content more closely related to architectural practice, allocating time for individual exercises, and concluding with a final reflective session to properly close the learning cycle

Additionally, students described decision-making around Calle 25 as marked by conflict, uncertainty, and pressures from both institutions and the community. Key tensions emerged from competing demands on the same space—such as preserving green areas versus building high-density housing, prioritizing logistics at ground level versus fostering walkable public spaces, or maintaining the canal as a green corridor versus converting it into a vehicular route. In weighing alternatives, students relied on criteria including mobility, safety, the quality of public space, environmental impact, identity, and social equity, applying these measures to compare scenarios rather than assessing options in isolation.

As the workshop couldnt comply their opinions and considerations on uncertainty and how to deal with it through time, the only response to that from them is from survey 2, where the specific questions of the shor, and long-term proposals for their schemes were asked for.

Many of their intial reponses for short term were very tecnical, but in the part that quiesitions about urban acupunctue they had some reallygood ideas, spacially in testing the actions before solide aproaches. Though, for the ling term, it was very mix, is clearly showing their delivery intentions of bigger facilities and biuldings that were clear in their zoning of the site.

5_3. FORMAL APPLICATION (B)

USB_SCA+UA (wednesdays)

The workshop introduced the **Strategic Choice Approach (SCA) as a framework for decision-making in complex urban planning contexts with the influence of Urban Acupuncture Principles**. Using the interactive platform **Miro**, participants collaborated in real time to identify decision areas, map relationships, and evaluate alternatives.

The methodology unfolded across four modes—**Organization, Design, Comparison, and Decision**—guiding participants to generate options, test feasible combinations, and establish commitments. Through this process, they learned to navigate uncertainty, balance

conflicting interests, and integrate economic, social, environmental, and regulatory considerations into urban strategies.

Students took on distinct roles:

Alcaldía (City Hall): JC, AG, EM, and CT

Desarrollador (Developer): CV, MR, SZ, and LG.

JAC (Community Board): SNG and S

This role-play emphasized how stakeholder perspectives shape outcomes, helping students experience the complexity of collaborative urban decision-making.

Table 15
Overview of Group B, USB SCA+ UA Workshop: Context, Purpose, and Key Elements

Component	Description	Purpose	Key elements
Workshop Context	Universidad San Buenaventura (USB), Urbanism I class, Group B: SCA+UA	Formal comparative analysis testing SCA methodology with UA principles	Dates: Oct 8 - Nov 29, 2025 Professor: Flor Inés Marín Duration: 3 sessions
Participants	10 students total divided into 3 stakeholder groups	Simulate multi-actor decision-making dynamics with competing interests	Alcaldía: 4 students Desarrollador: 4 students JAC: 2 students
Case Study Site	Segment between Carreras 39 and 42, Santa Elena corridor, Train-Tram/Green Corridor project, Cali, Colombia	Real urban planning challenge with Train de Cercanas (commuter train) integration	Key landmarks: Galería Santa Elena (market/BIC Level 1), Unidad Deportiva Mariano Ramos, Estación Simón Bolívar MIO
Problem Focus Selected	Location of housing, and the Station's Location	Reduce complexity from many decision areas to manageable subset for detailed analysis	
Workshop Outcomes	Completed Organization and Design; partial Comparison mode	Strengthen project submissions and demonstrate SCA methodology application + the influence of UA principles would make more effective, budget friendly proposals	Schematic designs with cartography, descriptive memory, and basic volumetrics to be validated by stakeholders
Student Approach	Interaction to define who is right. Between bold proposals and realistic methods.	Group B's contribution through imaginative, extreme opposite propositions.	More comparative than analytical; generated options during live sessions rather than homework

Session 1 - Introduction

October 8th, 2025

s01 1-3 (7 min): The session began with an invitation to reflect on this by asking how they had chosen their own careers. One student explained that they had first wanted to study Civil Engineering but ended up changing paths after a “human error” blocked their admission, while another said they chose architecture because they were already working in construction and wanted to continue in that field.

Building on these stories, it was emphasized that in urban planning decisions are rarely just a binary choice between two pills; instead, there are many interconnected options that interact with each other. Then, a metaphor drawn from the red and blue pills in *The Matrix* to talk about how much decisions matter in people’s lives and in planning.

Facilitator: *Tell me, how did you make the decision to study architecture? Did you really have to choose, or did you always know? Did you feel a connection to architecture?*

Student 1: *I had already started Systems Engineering, but I didn’t like it; I felt it wasn’t for me. Then the pandemic came, I left the program and went to work on a construction site—and that’s how I decided on architecture.*

Facilitator: *Any other who wants to share?*

Student 2: *I was going to enter a public university to study civil engineering, but something happened with the process and they wouldn’t let me continue—I don’t even know why. I didn’t get the chance to take the entrance exam. I didn’t want to stay doing nothing, so I chose this instead, to stay in the construction field. But it took me about two years to really feel that this was my thing, because at first it had nothing to do with my plans.*

Facilitator: *Do you feel more motivated now?*

Student 2: *Yes, I do. I think at some point I’ll be able to complement it with something else.*

Facilitator: *Did any of you have another career in mind, medicine, psychology, music, law? How was it in your case?*

Student 3: *No, I always knew I wanted to study architecture; that was very clear for me. But I also thought about the economic side for my parents, because architecture isn’t cheap, you need money for models and materials. So I considered law as a good alternative.*

Facilitator: *And what finally made you choose architecture over law?*

Student 3: *Architecture was always number one. When the opportunity came up to study architecture, I just took it.*

Facilitator: *Right, I see. There’s something important here that we can connect to our ‘super-mega’ reference. If you didn’t get it, please leave... just kidding. Often we face two options in life, but those choices aren’t necessarily ‘right’ or ‘wrong’. Strategic decision-making is not about ‘this is good and that is bad’; it’s about which option is more suitable for a particular context. And sometimes it isn’t just two options but many.*

In my case, before choosing architecture I only knew what I didn’t want. I loved the arts but didn’t want to pursue it. I was very involved with medicine, volunteering in brigades and at the Red Cross, doing a two-week internship at the public hospital. When an orientation guidance mentioned architecture, I started looking at design, industrial design, and so on. In the end I chose architecture after a vocational-orientation course and thought, ‘Why not architecture?’

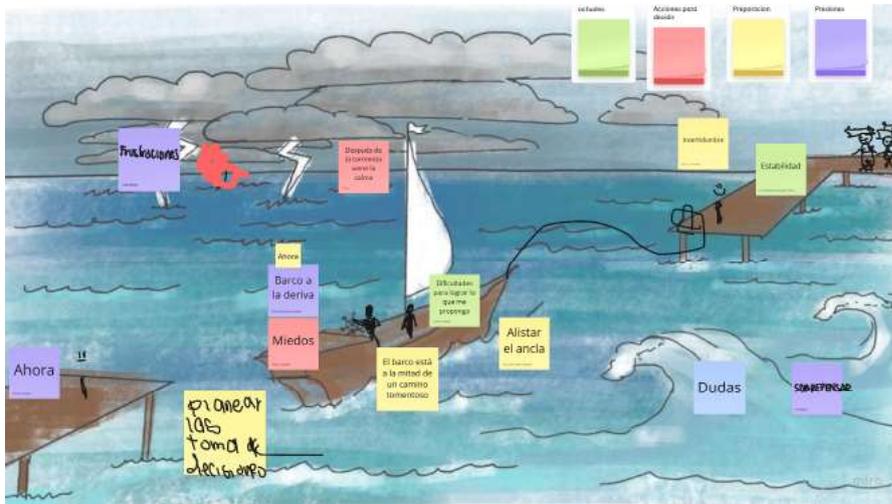


Figure 41: USB_Wed. Annotated Ship in the storm illustration (Group B collab)

s01 4-6 (10min): Participants interacted in The "Boat in the Storm" Miro Exercise and added:

Facilitator: *I'd like you to look at this illustration and explain how you understand it in terms of decision-making. It's completely open for you to write, draw, and discuss the different elements you see that might be part of the process. What do you think of this first port? The boat, the sail, the rudder, the waves that look huge—almost as if they're going to knock it down? Then we have another port, with calm water, and a storm in between. You have the post-its, and you can also draw. Let's give it five minutes.*

[...]

Facilitator: *Who's drawing this little person here? Do you want to add anything else? I'm just curious, why did you put a little person?*

Student 1: *I see the image this way: the first port is the moment before making the decision—there are the waves, the stormy sea. The other port is after we've made the decision. Sometimes we think our choices will be chaotic, but we realize it was easier once we actually get there.*

Facilitator: *Okay, that's why I also like the smiley face.*

Student 2: *Yeah, I didn't know the person was supposed to be happy—I just put them there like 'I'm out of it, I've already decided'.*

[...]

Facilitator: *You can write or draw whatever you want. Within the post-its there's an area for actions to decide, what kind of actions do you need to take before making a decision in order to start the process? We also have current realities: What are those realities like just before you decide? Is there a lot of fear, or a lot of motivation? Then there are pressures, what's pressuring you to decide, or making it difficult to decide? Finally, there's the preparation part: What do you have to do beforehand? Maybe we need to make lists, load the cargo, hire the crew.*

Who wrote 'frustrations'? Why did you?

Student 3: *Because I feel frustrations affect decision-making. You're reacting to what's happening in the moment. For example, I see the storms as things that occur in the moment, but they're not always there. That's why I put it as a frustration—it's not something that makes the decision concrete, it's a passing feeling.*

Facilitator: *Okay, I like that. What else? Who wrote 'ship sailed'? Why a ship without a sail? And there's no crew either—someone should draw the*

crew for him! Who put 'ready to disembark'?

Student 4: *Well, if they're going to reach the other port, they have to be ready to disembark when they arrive.*

Facilitator: *Nice. Is that the captain, or a crew member? Because I see both here—why did you put a captain and a crew member? How do you see them within the whole scheme?*

Student 3: *For me, my family is very important, so my family is like the captain. I always share what's happening with my mom, because she's someone with more experience who can guide me, give me recommendations, and maybe see things better than I can if I'm drifting on my own. That's how I wanted to interpret it.*

Facilitator: *Okay, so the captain is someone who gives you advice.*

Student 3: *Yes, exactly. In this case, it's always my family, my mom.*

Facilitator: *In that case, who is the crew member?*

Student 3: *That would be me, the one accompanying them, or them accompanying me, throughout the process.*

Facilitator: *So what activities does the crew member have to do?*

Student 3: *The work of everything, if it's time to hoist the sail, I hoist it; if it's time to drop anchor, I do that; and if there are setbacks, I try to handle them on my own. But if I'm too overwhelmed, I ask for help.
[...]*

Facilitator: *Okay. What else? Someone put the ship halfway through the stormy road. Who did that?*

Student 4: *I see it as a metaphor for life. You al-*

ways start out, and along the way, when making decisions, there are activities or actions you don't anticipate. The waves represent complications, moments when you think it won't get better, but there's always light after the tunnel. The other port represents the completion of that process.

Facilitator: *Who drew the people at the port wearing Mexican hats? Why?*

Student 2: *To complement the boat drawing. I feel like I can be the crew member, and the people here can be my parents.*

Facilitator: *Sorry, which ones? The captain, or the people at the end?*

Student 2: *The people at the end are my parents, and the captain is the reason I need to reach that port—the motivation. I'm the one trying to make the journey from the ship to the port a reality. More than anything, I'm doing this so that in the three years I have left, they feel proud.*

Facilitator: *So your metaphor is that your whole process in this degree program is that boat, and when you finish, it's like reaching that other port.*

Okay, just to understand. Anyone else want to share something they drew that I haven't asked about? Good. Now we have that same diagram but with more precise vocabulary. We have different stages: preparations for decision-making, the moment we're making the decision, and everything happening around it, the current realities. We have pressures, sometimes urgency, sometimes overload, but also other kinds. And finally, we have progress to make plans. I'd like you to help me organize all these words within the illustration (where you think they belong) and if anything is missing, feel free to add it.

Yes, I've locked everything and left only the movable words. I even locked the background and the slides. Otherwise, with everyone moving things

around, we'd have too many problems. Okay, I see there are three types: physical plans, financial plans, corporate plans. Who can tell me why we have these plans here? Who put them up?

Student 2: *Me.*

Facilitator: *Why did you put 'plans' at the beginning?*

Student 2: *Plans are like having a projection that you have to adjust in order to start navigating and reach the point of making that plan a reality. It's the path, and on that path, there are also certain difficulties.*

Facilitator: *Okay. Who put 'uncertainties' on the sail? Who moved 'uncertainties'? Everything moved by itself.*

Student: *At the start of that path, there's always uncertainty about what might happen, and also fears.*

Facilitator: *Right now, why do you think there are uncertainties right on the sail? How do you relate it to this moment?*

Student: *Loneliness and the storm. The sail is what pushes the ship, so you can solve situations you didn't plan. If you go with fear, that uncertainty can prevent the ship from reaching its destination.*

Facilitator: *I like that 'exploring values' is in the middle of the water, near the lightning. Can anyone explain why it's there?*

Student 3: *I put it mostly because I felt that along the way to reaching your goals, both stormy and peaceful situations can arise. You face difficulties in life that lead you to self-evaluate and explore values you hadn't looked at before—because you hadn't been in that perspective or situation, which now drives you to develop those principles.*

Facilitator: *Okay, okay. Anyone else want to add why you put something where you did? Well, the original diagram more or less presents an initial part, as our colleague said, preparations, making plans. Decision-making preparations often involve these kinds of choices. Preparations to create policies, like when you have to generate a POT or a school master plan.*

What types of actions do you need to do before generating this kind of plan? When we're in the moment of deciding strategically, we also find ourselves in a sea of current realities: hesitation, uncertainties, inconsistency—sometimes you're advancing a lot and then you're not. For example, with my thesis, I didn't touch it for four months.

There's confusion, disenchantment, you stop liking the decision you have to make. That can throw you off course. But often we have pressures: complexity, conflict, overload of decisions. Imagine that boat is overfilled and can no longer move at the same speed, it can't sail with the wind alone. With just one wave, it might sink completely. We also have turbulence, competition, and urgency. Sometimes we have to decide within a certain timeframe, which complicates things even more. But the goal in all of this is to continue progressing by deciding strategically. Decisions aren't just made point by point, we also make many mini-decisions step by step.

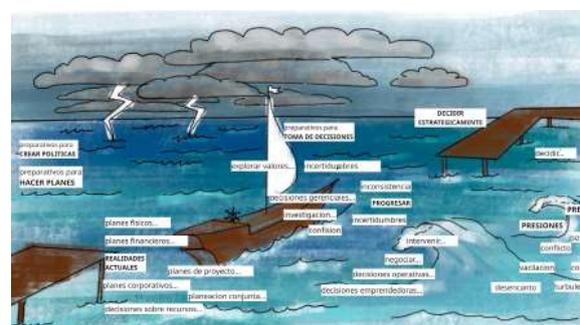


Figure 79: reorganization of the concepts from fig. 1 on the ship illustration (Group B, collab)

s01 7-8 (10min): After the judgement of balances and description of the different types of problems were handed. In this section, students shared their comments: for instance, one described **domestic problems** as *issues related to home and family, noting that he found them more difficult*. Another gave the example of *not washing the dishes*. This responses were used to build a definition of domesticated problems, and then moved on to discuss critical and wicked problems.

Facilitator: *So, what kinds of problems in your life would you consider tame or ‘domesticated’ problems? I really need someone to say something. Let’s hear from someone who hasn’t spoken yet. What do you think a tame problem is?*

Student 2: *I wouldn't know what to tell you.*

Facilitator: *What can you think of? It's okay, saying whatever comes to mind.*

Student 2: *Well, I think of domestic issues, like at home and everything. Household stuff, family problems.*

Facilitator: *And how do you experience those problems, are they easy or hard to handle, because they're at home and involve your family?*

Student 2: *I think it's harder.*

Facilitator: *Okay, so we're moving along a line from easy to hard problems—so maybe we won't use that example just yet. Let's think of ‘domesticated’ problems as ones that feel easier, where there's more trust and it's easier to solve them. It also depends on the situation, but for example: not washing the dishes. If the problem is ‘I didn't wash the dishes’, what's the solution? You can talk to the other person—but politely, not rudely. In this case, the problem is ‘the dishes weren't washed’, and the solution is: wash the dishes.*

So tame problems are the kinds of problems where we more or less know the answer or solution. It's like in math class, where you already have the formula and the step-by-step method. Those are domesticated problems—you know what comes next: A, B, C, and done. It was a problem for a moment, but it gets solved without much drama.

Then we have critical problems, remember, we're increasing the difficulty. What do you think critical problems are? Looking at the icon I put for them, what comes to mind?

Student: *They're bigger, more complicated problems, like they go out of our control.*

Facilitator: *Okay, but how do they get out of control if, in tame problems, we already know the answer? What makes a problem critical?*

Student: *Maybe it's when someone is very indecisive and has lots of possible answers, and that's exactly why it's critical, you don't know how to organize yourself.*

Facilitator: *What you're describing actually takes us into wicked problems. A critical problem, in this case, is one where we more or less know the steps, but it becomes urgent. For example: nobody washed today's dishes, your parents are about to get home, and you know that if you don't do it, you're grounded for a month and you're not at home yet. That's a critical problem—how are you going to solve it in time?*

So, critical problems are those where you know the solution and the steps, but they become urgent because of time pressure. Time is that extra piece of information. Wicked problems, on the other hand, are problems where there is no single right or wrong answer; it depends on the context you're in, like in architecture. Every design project asks different questions, so the “right” answer changes with the context. Those are the problems we'll work with, now I have an exercise for you.

s01 9-10 (10min): Uncertainty takes different forms in projects. **Guiding values (UV)** appear when objectives are unclear: *“the values behind the objectives one has... until I define what I truly want, many times the project just goes in circles.”*

Working environment (UE) arises from lack of information: *“because it concerns the context, you need a different kind of participation, like the opinion gathered through a survey.”* This was reinforced with *“we need to know much more before making a decision.”*

Related decisions (UR) show up in team conflicts: *“when classmates still don’t know each other very well... they start fighting, they can’t decide.”* A student added: *“negotiation and talking... sometimes you really have to negotiate what is going to happen.”*

Disruptive events (UD) are unexpected shocks: *“uncertainty about what happened today, when suddenly a lot of streets were closed; that is a disruptive event.”* As clarified: *“they come out of nowhere... what we can do is have contingency scenarios or prepare a plan.”*

Finally, the group reflected with the “Boat in the Storm” metaphor. One student said: *“what pushes that boat... in a moment fear hits me, that’s uncertainty; it can mean the boat never reaches its destination.”* The facilitator linked this to planning: *“balance between closing paths so you can move forward and leaving several open so you can adapt... accepting uncertainty as a natural part of the process.”*

To visualize the four types, they used a chef analogy. UV is like not knowing whether your guests prefer spicy or sweet food. UE is not knowing whether there is enough salt in the pantry. UR is coordinating with the waiter so

that the food reaches the table while it is still hot. UD is a sudden power outage in the kitchen while you are cooking.

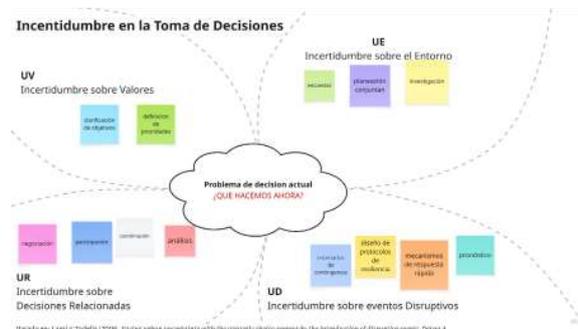


Figure 80: USB_Wed. Reorganization of Acing urban uncertainty with the strategic choice approach: the introduction of disruptive events

Facilitator: *We have all these post-its we can move around, and in each area we’ve written different kinds of uncertainties. We group them into four categories. The first is uncertainty about values, such as your own priorities or goals. In projects, this appears when you haven’t yet defined what you really want or what the project’s objective is, so the work goes in many directions and the “structuring system” is unclear. You need to choose a structuring system to guide the path more clearly later on; those are value uncertainties. Then we move on to uncertainties related to decisions.*

Often, especially in architectural practice (less so at university), we work on projects in groups. Sometimes you barely know your teammates and everything becomes chaotic: people argue, can’t reach decisions, and aren’t sure what they want. That kind of situation illustrates uncertainties related to shared decisions.

We also face uncertainties about the environment or context: what is happening around the project, and how we should respond to those conditions. Finally, there are uncertainties about disruptive events, like what happened today when many streets suddenly closed. That is a disruptive event, and the question becomes what can be done to re-

spond to or solve it.

So, I'm asking you to place these post-its where you think they belong. Who wants to tell me why you put one where you did—or should I start asking directly? You laughed, so I'm coming to you.

Student: *The one I put in, someone moved it.*

Facilitator: *The one you placed at the beginning, what was it?*

Student: *Uncertainty about disruptive events. Since there's uncertainty, I think the best thing is to reduce it by seeking negotiation; in the long run it depends on the situation how we solve it.*

Facilitator: *Ok, but what do you think about the fact that right now it's under 'negotiation'?*

Student: *Because negotiation is related to the decisions that different people have to make.*

Facilitator: *Good. Moving 'negotiation' to related decisions fits well: if many people or actors are deciding, we often have to negotiate carefully what will happen to guide ourselves. Those of you who placed 'forecasts', 'rapid-response mechanisms', 'contingency scenarios': remember that disruptive events are things we don't really expect, that aren't part of everyday routine but appear out of nowhere.*

So, when planning before an earthquake or, like today, when it suddenly becomes hard to get home, we need contingency scenarios—a plan for what to do if an extreme event occurs. And here in Cali, what is needed then? For environment/context, who placed 'surveys'?

Student 5: *I did. For the environment, you need joint planning that involves several people and a broad audience, to be able to reach a solution and understand what the environment is like in that uncertainty. So, through surveys, I think you can*

get those different opinions and participation.

Facilitator: *Exactly, joint planning with many people and a wide audience to reach a solution and understand the environment in that kind of uncertainty.*

s01 11-12 (1min): There are always pressures to decide that gives us more urgency, more overload, but around this current decision problem we have the different uncertainties that over time, complying with more coordination, with emergency protocols, research, policy orientation, can be solved by reaching a modified decision problem that can be much more in line with what we need or what we are looking for. So in this case, this is a diagram that I drew on top of it while I was reading.

To me, this diagram seems like a reference to a rocket that is going to come out. Every project, every decision that we're going to make is like this whole project of a rocket that's going to come out of the stratosphere and that in one way or another is going to continue to move forward over time.

s01 13-14 (7min): When asked how they currently make decisions, students described a set of familiar, mostly linear strategies:

Cómo toman una decisión?



Figure 81: USB_Wed. Comments on how "I take a decision" (Group B collab)

Pros and cons list;
Weighing the benefits of one decision or another
Selecting one alternative, once the comparison feels clear
seeking advice from their parents
considering benefits
evaluation: effectiveness, efficiency, cost
check list
avoid a bad future
following my intuition
focused on a specific goal.

Insights arose from the discussion their ways on making decision, participants would often seek out people (their parents) because of their greater experience, which enables them to treat “wicked” problems as if they were “tamed” problems with a step-by-step resolution.

Facilitator: *The point of this theory is that decision-making, this thing that is often so important, doesn't stay vague or “in the air.” With tools like these, we can follow a step-by-step path, anticipate what comes next, and see how decisions will be implemented throughout the project. So here I'd like you to write or draw how you make a decision: your step-by-step, how you prepare. It can be something super simple—how you decided what to have for breakfast, maybe not today but tomorrow.*

“What are your steps while you're deciding? Do you make a list? Do you first think about pros and cons?”

Student: *I look at the benefits.*

Facilitator: *Are you thinking about short-term or long-term benefits? And within those benefits,*

what categories are you considering? Only ‘benefits in general’, or benefits for you as a person, depending on the decision? For example, if I decide not to eat out today, I miss out on something tasty, but I protect my budget. Those are the kinds of trade-offs we think about.

When we talk about benefits we have to be clear which benefits: economic benefits, benefits for your wellbeing and satisfaction, whether the decision fits your values and objectives. It's important to consider whether the benefits you're looking for are aligned with your values.”

“Here I see: ‘avoid a bad future’, ‘follow your intuition’, ‘talk to my parents’. Why do we talk to our parents—what extra point of view are we seeking?”

Student 2: *They can give you a more ‘correct’ or at least more balanced answer. They guide you so you don't get carried away only by your emotions. They see things with a cooler head and look for what's best for you*

Facilitator: *Exactly. It's important that sometimes we look at decisions from a more neutral point of view, with fewer personal value judgements. And with parents, I always do it because they do have more experience; they've already been through similar situations. For them, problems I'm facing may now be tame problems, they already know the step-by-step, while my head still hurts just thinking about them.*

Here I wanted to share a comparison of different decision-making schemes. On the left, we basically have what you described: we start with a problem, then a design mode where we list pros and cons, then a comparison mode where we look at what we really want and which option benefits us more, and finally a yes/no choice that gives us a way out of the problem.

The difference with the Strategic Choice Approach is that we often have multiple problems and decisions interacting at once. It's not just 'option A or B', but several linked questions. If I make a decision at this table, it affects what I can decide at that table—do you see? So we don't have only two modes. We start with an organizing (shaping) mode, to clarify issues and who decides, then move to a designing mode to generate options, then to a comparing mode, where we use benefits, categories, or values, and finally to a choosing mode, where we not only decide but also build an agenda or step-by-step plan for those decisions.

In architecture and construction, we make many decisions over time: not just "I'll put this table here," but in two weeks "what tiles will the bathroom have?" Organizing the design work by priority, urgency, and available alternatives helps us make more appropriate decisions. Along the timeline, if there is pressure or urgency, that "mini-agenda" tells us the best next step and which options are available. That is the Strategic Choice Approach we will explore in two weeks.



Figure 82: introduction to Urban Acupuncture presentation (Source: Author's Adaptation)

UA presentation (15min): The session then introduced urban acupuncture as the tangible, localized stage that would guide many Strategic Choice Approach exercises, especially in Choosing Mode, framed by the question: *"If we can't*

fix the whole city, what can we do right now?" Urban acupuncture was presented as an urban design approach inspired by medical acupuncture, treating the city as a living organism where small, targeted interventions can revitalize the whole, offering a fast, local, and economical alternative to large, slow, and expensive projects.



Contraste con lo tradicional: Alternativa a la planificación convencional – rápida, local y económica vs. proyectos masivos y lentos (archdaily.cl).

Figure 83: Urban design focus inspired in UA (Source: Author's Adaptation) Translation fig. 83:

Urban design approach inspired by medical acupuncture (city as a living organism).

"Small interventions can revitalize the whole" targeted actions that heal parts of the city in order to improve the whole.

Contrast with the traditional: An alternative to conventional planning – fast, local, and economical vs. massive and slow projects (archdaily.cl).



Figure 84: Key Principles of UA introduced (Source: Author's Adaptation) Translation:

Key Principles of UA introduced, considering, it was their first time hearing this concept:

Micro-intervention: Small-scale actions at precise points (a corner, a vacant lot, a street) that can be implemented quickly archdaily.cl. They are flexible and reversible projects, easy to adjust.

Systemic impact: Although minimal in size, they trigger positive **chain effects in the city (domino effect)**; they release latent energy in the community and improve the environment at larger scales es.wikipedia.org.

Citizen participation: Collaborative approach – involves neighbors and local actors in diagnosis and implementation. The interventions are usually supported by community initiatives, strengthening the social fabric (archdaily)

Activation of flows: Reactivate urban life – they foster social encounters, use of public space, and reconnect pedestrian, economic, or environmental flows.

Adaptation to place: each intervention responds to the needs and character of the specific site. **They are located scrupulously where they will generate the greatest regeneration** (wikipedia; archdaily.cl)



Figure 85: Summary of Main Principles (Source: Author's Adaptation)

For an intervention to be considered UA, it should be quick, local, and economic—the “Triple Value” Rule. This makes projects flexible and reversible, offering an alternative to traditional planning that is often massive, slow, and expensive.

UA is not just a technical fix but a social one, capable of triggering a “domino effect” that improves the environment and activates flows like social encounters or pedestrian reconnections. Community ownership was emphasized: when residents participate—for example, in planting trees—the survival rate is higher because people feel the trees “belong” to them.

Students suggested immediate actions such as adding lighting to dark streets or using old tires to slow traffic. They also reflected on “caminos de hormiga” (ant paths)—the natural routes people take across green spaces—as a way to adapt designs to existing community behaviors rather than imposing new ones.

In addition, the site was briefly introduced, and students were assigned homework about the initial SCA concepts to review it at home, ensuring that the next steps would connect classroom insights with real-world context.

Session 2 - Shaping On the application of SCA + UA

October 22th, 2025
(10 participants)

s02 1-6 (9min): The session began after a class on cataclist projects, afterwards, with a reminder of previous concepts, particularly the SCA cycle, which consists of four modes: Organization (Shaping), Design, Comparison, and Decision. It also reviewed the three types of problems planners face: tamed (domesticados), which are problems whose answers are already known; critical problems, which are urgent and must be solved quickly to prevent worsening consequences; and wicked (malvados) problems, which have no single correct solution and can be addressed in many different ways.

As the focus zone is between Carreras 39 and 42, near the Galería Santa Elena and Mariano Ramos sport's center, where a future commuter train (tren de cercanías) station is planned. the site was reminded with those images that can be used Students described the current state of the area as:

"There is a lot of lack of organization... a lot of trash... it's impossible to pass through... if you call a DIDI (some sort of Uber app), they won't go in, they cancel on you because it's impossible to pass".

The social reality shows a strong presence of micro-networks of criminals, while environmental conditions are dire. Sanitation is extremely poor, and the central water canal (caño) is clogged with garbage and foul-smelling waste. Some students questioned the relevance of the chosen path for the TCV. However, as noted by interviewees during the second phase of the thesis, the area was selected because it is government-owned, even though it is currently occupied informally. Since the land is already public property, acquisition is simpler and less costly,

meaning the train route will remain fixed and the occupants will not receive monetary compensation.

Facilitator: *The area we're going to work on is the green corridor for the commuter train, especially along Calle 25. In this stretch we have Santa Elena, the Santa Elena market. Does anyone live nearby or visit the area often? What problems do you see there?*

Student 1: *There's a lot of garbage. With all the meat and other products in the market, I always see trash everywhere and a lot of disorder, a lack of organization. The biggest problem is really the roads: on 26th Street it's almost impossible to get through. If you order a ride, sometimes the driver cancels because you just can't pass, and people don't seem to care; they even scratch your car..*

Student 2: *There are social problems too. There are criminal networks that charge 'taxes' to stall workers. Traffic is a mess, especially during unloading hours on Sundays, so it's hard to move around. There's a lot of disorder; merchandise is unpacked right on the street, onion and everything gets thrown away and creates bad smells. There's also an open water canal running through it.*

Facilitator: *So, even if it's not exactly where we'll intervene, the Santa Elena gallery is part of our context. Our specific focus will be the strip between Calles 39 and 42. There will be a commuter-train station there. Nearby we have the Mariano Ramos Sports Center—one of the few places in Cali where athletes can train competitively—and the Simón Bolívar station. What other problems do you notice along the train corridor, especially near Calle 25?*

I made a quick sketch over a photo, in gray, to

show how much of this 'green zone' is actually occupied by informal housing. All that land legally belongs to the government and is reserved for the train. That means these are invasions on public land. If residents are displaced when the train is built, they are not entitled to full compensation for their houses, because the land isn't legally theirs. That's another situation we have to consider here.

Prof. Marin: *There are many recycling warehouses, abandoned cars, scrap yards.*

Facilitator: *I even saw a news report where they had left a boat there. Among the garbage you also find other kinds of activities, like drug sales. Overall, every time I pass by, the area looks deteriorated, and there's a strong sense that the community isn't interested in keeping it in good condition. There are many overlapping dynamics here, and our task, as future architects, is to think about how we might begin to address all of this.*

s02 7 (2min):

Afterwards, the roles were divided as follows:

Alcaldía (City Hall): JC, AG, EM, and CT

Desarrollador (Developer): CV, MR, SZ, and LG.

JAC (Community Board): SNG and S

s02 8b-8c (55min): As the concept of decision areas was introduced, students were asked to reflect from the perspective of their assigned roles, without focusing too much on drawing. This adjustment was made because, during Group A (Monday)'s workshop (SCA, non-UA), completing the decision areas had taken longer than expected.

With that in mind, the groups began working on their decision areas and defining labels. This time it was easier, as Prof. Marin had a clearer approach to guiding the definitions and labels

for the decision areas, with that, a developer raised the question, "How will the investment be returned in this real estate project?" as their main concern in their investment position. During the brainstorming phase, the "pistas" Clues of categories were shown such as Location, Mobility, and Housing to guide the groups in formulating at least five questions each, and those categories might be the reason why many of the labels of the decision areas ended up just being that.

Facilitator: *The idea is to work with the concept of decision areas. A decision area, in a nutshell, is the question: "What are we going to make a decision about?" In the text example, the decision area are related to: where to locate the new road that is going to be built?. In that case, the guiding question is something like: "What route should we choose for the new arterial road through the South Side?"*

You should also assign a label or short title to that decision area, because that makes it much easier to carry out the rest of the exercises, and we will keep working with that same decision areas.

Prof. Marin: *I want to stop here a little bit because on Monday we saw that we didn't understand it, it was very complex. So you are going to do two things, you are going to ask yourself a question, think of an issue quickly that you would like to work on in that area, any issue, a problem.*

Facilitator: *They have some guidance about what an actor or character is, but they do not have to follow it literally. If you think of something else, you can add it as it comes up.*

The key is to step into the shoes of that developer or the mayor's office and think: "OK, from this position, what problems might appear in this situation?" For example, a developer will contribute

money to the mayor's office to pay for everything involved in the green corridor, but then they need to recover their income. So they have to think about what they are going to propose in order to get back all the capital they have invested.

Prof. Marin: *So that question would be: How is the return on investment in this real estate project? That could be a question that you ask yourself: How did he develop that real estate? The label of that would be investment, that is, it is like a key word with which you identify that question. So the task that we have right now, we're going to take 20 minutes to do it, is for you to raise questions, all the questions that come to mind about different topics, then about public space, about housing, about commerce, about insecurity, about the issues that come to mind, about roads, about mobility, on any topic that comes to mind in your mind.*

Facilitator: *Nothing because it's very big, there are the clues of the different, I don't know if I can, but maybe if you have access, it's there. Those clues are like the categories with which they can start to see the questions. The idea is that each group writes the question description and label under their own slide, so to say and. And if you have any questions, if you have anything extra that you want to ask us, we are here. If you also want to draw so that you can come up with more ideas, you can do it, but the ideal at this time is that they are very fast things, as within the tracks we have location, how will the location of the station or mobility be? Among the examples I gave them.*

Prof. Marin: *Location, they also had Monday's (group A). Where to locate the shopping center? So don't think about the solutions only in the questions, because the exercise we did with them was that they began to think about the solutions and then we had to rethink the problems, so the idea is that they think only about the problem, it may be that you write down more or less in your notebook and that's it.*

Once the explanation was clearer for both the students and facilitators, the exercise produced a total of sixteen decision areas, which were later shared with the whole group to foster a better understanding of each role's concerns and to avoid overlapping labels. The main focus of each role was as follows:

DESCRIPCIÓN DE ÁREA DE DECISIÓN	ÁREA DE DECISIÓN
¿Cómo garantizar cruces seguros y accesos cómodos a la estación/nodo en 39-42?	Cruce seguro?
¿Te parece una buena ubicación para ejecutar el proyecto?	Ubicación?
¿Que movilidad se priorizará en el sector?	Movilidad?
¿Que pasaría con los asentamientos de viviendas informales y formales de este sector?	Viviendas Formales e Informales?
¿Que afectaciones socioeconómicas positivas o negativas traería este proyecto?	Costos vent. cost?
¿Que impacto ambiental tendría el proyecto para el sector?	Ambiental?

Figure 86: Alcaldia_B, Decision Areas

Alcaldia: It's essentially a framework for evaluating the project's feasibility and impact. The focus is on whether the location is suitable, what kind of mobility will be prioritized, how both formal and informal housing will be affected, what socioeconomic consequences (positive or negative) might result, and what environmental impacts the project could bring to the area.

DESCRIPCIÓN DE ÁREA DE DECISIÓN	ÁREA DE DECISIÓN
¿Qué atractivo probar para atraer flujo y seguridad?	Actividad?
¿Que rentabilidad le da el proyecto la ubicación?	Ubicación?
¿Como se revalorizan las viviendas para que no sea tan fácil su venta?	Vivienda?
¿Que modelos de financiación se pueden usar? (alquiler, plusvalía, subvención, ...)	Socioeconómica?
¿Que alianzas estratégicas se pueden establecer con el sector público o privado para regular y mejorar las áreas?	Cultura urbanidad?
¿Como evitar que el impacto negativo del aumento del tráfico de la galería Santa María se extienda al área del proyecto?	Impacto ambiental?
¿Como conservar a la misma comunidad?	Socioeconómico?
¿Cómo generar los valores de plusvalía?	Ubicación?

Figure 87: Developer_B, Decision Areas

Developer: It's a framework concerning on the profitability and suitability of the location,

strategies to revalue housing so it isn't easily sold off, and possible financing models like public-private partnerships.

It also considers building alliances with public or private actors to ensure execution and maintenance, preventing the negative spillover of warehousing expansion from Santa Helena, and ensuring the community is preserved. Finally, it asks where the mixed housing should be placed to balance social and economic impacts.

DESCRIPCION DE AREA DE DECISION	AREA DE DECISION
¿Cómo organizamos la participación que la comunidad sea escuchada y obtenga beneficios tangibles?	Escuchados?
¿Cómo mitigar el flujo vehicular para el acceso a los barrios del sector?	Escuchados?
¿Cómo el proyecto integraría a la economía local sin afectar a los comerciantes?	Escuchados?
Teniendo en cuenta que al rededor del sector hay equipamiento importante para la ciudad (la galería de Santa Elena, Terminal Simón Bolívar, zona deportiva de Mariano Ramos) ¿qué equipamiento proponen para unificar estos equipamientos y más bienestar como comunidad?	Equipamientos?

Figure 88: JAC_B, Decision Areas

JAC: They focus on how the project can manage traffic flow into neighborhoods, integrate with the local economy without harming shopkeepers, and create facilities that connect major nearby amenities—like the Santa Elena market hall, Simón Bolívar bus terminal, and Mariano Ramos sports zone—so the community benefits as a whole.

Increasing discussions whether they should recycle existing buildings or concentrate on a specific zone to increase density. Meanwhile, the Alcaldía was reminder that they were responsible for setting the rules and prioritizing the train tram as the main mode of mobility. Students also shared personal fears about insecurity in Cali, mentioning shootings and thefts, which led them to emphasize security and natural surveillance in the project.

When groups presented their initial decision areas, the community asked how vehicular flow into neighborhoods could be mitigated and how the project would integrate existing merchants. The developers questioned how to revalorize housing so it would not be easily sold, noting that many homes were being converted into bodegas for the gallery, which devalues the residential sector. The Alcaldía raised concerns about what would happen to both informal and formal housing settlements.

In summary, the participants had their time to think the problems they thought best to solve and then those were shared to be reorganize with the whole class.

Facilitator: *The space we're working with is still very broad, so nothing is fixed yet. Use the prompts as clues—categories that help you frame questions. Each group should write a clear question, a brief description, and a short label. Keep it quick and simple; if drawing helps, you can sketch too.*

Prof. Marin: *Focus on problems, not solutions. For example, instead of deciding where the mall goes, ask: "Where should the mall be located?". Think of at least five questions on different topics so the next exercise is richer*

Facilitator: *Exactly, but also decide what kind of developer you imagine being: focused on commerce, housing, or something else. That helps narrow the problem. Your questions can refer to problems or possible actions: What could be done with the canal? With the existing houses? As developers, what options do you see? Write the problem and a possible answer next to it, but always in question form. For example: "What would you like to do first as developers?"*

We showed maps indicating this is a "mixed-activity" area: it could be formalized as mixed-use, intensified with new housing towers, or renewed

entirely, preserving a strip along the water. So, again, as developers: do you want to formalize, densify, or renew—and how?

Prof. Marin: *Your questions can also include profitability and design choices: How much density do we want? How many new housing units beyond the existing ones? Do we demolish or recycle what's there? Do we leave a large public-space area to increase land value? Ask for "everything you dream of" now, because later you'll negotiate with the community and the city*

Facilitator: *Write down all the questions that come up, even if they seem advanced. You can duplicate images or notes so nothing is lost. A good strategy is to think in categories—mobility, housing, public space, economy, environment—and ask: "What would I like to do?" so new questions emerge.*

Student 2 (developer): *I identify the problems that exist, at least five and with those five I ask as a question to say How could I solve mobility, so to speak, and five questions about the problems that exist.*

Facilitator: *You can ask about anything you notice, but first decide what kind of developer you are imagining: focused on commerce, on housing, or something else. Writing that down helps narrow and clarify your questions—just like in a thesis, where you're asked to keep making the problem smaller and more specific.*

Student (developer): *That these are possible items, it's not that they have to be questions about mobility problems, housing problems, no, but like the ones I see.*

Facilitator: *You can also think in terms of possible actions. As developers, looking at this whole area: what could be done with the canal, what could be done with the houses? As the professor mentioned, you might invest so residents can improve*

their homes, or buy plots and build a new development. As a developer or real-estate company, what options do you see here?. We write down the problems and, next to them, possible answers—but always framed as questions, for example: 'What would you like to do first as developers?'

On these maps you can see the area is classified as 'mixed activity'. That means you could keep it mixed-use, reinforce commerce and formalize it, or treat it as an urban renewal area: demolish and build dense new housing towers, preserving a strip along the canal as we discussed earlier. So, again, as developers: do you want to formalize, renew, densify—and how?with very tall towers, as dense as you want, while preserving about 30 meters from the water's edge, similar to what we discussed before.

Prof. Marin: *And how do you ask yourself that so you can gain the most? You might say: we make one huge residential complex—where would that go?*

Student (developer): *But then, like the teacher said, the problem is also the possible answer; we'd also ask: how is that investment going to pay us back?*

Prof. Marin: *Exactly. Later you'll ask: how will we be rewarded for the investment? But you can already ask: How much density do we want here? How many housing units beyond the existing ones? That will later lead to options like: Do we demolish everything or recycle some buildings? Do we concentrate on one part of the site? Or do we become 'strategic' developers and decide to leave a big public-space area, because that has been shown to raise land values in the sector?*

Facilitator: *All those questions you're asking now are useful. Write everything down—don't lose any ideas, opinions, or options. You can always duplicate the image and later select which questions are used in the exercise. One thing that helps me is to think in categories and ask: 'What would I like to do?' From there, new questions appear.*

Prof. Marin: *Next we'll connect this with the demands of the Community Action Board and the rules they and the city will impose. Not everything the developer dreams of will be built. You're going into a negotiation. In a negotiation you ask for everything you'd like, knowing you won't get it all. But you must know what you're going to negotiate about—so now is the time to put all your demands on the table.*
[...]

Facilitator: *How are you doing here? What are you planning to do?*

Student 4 (Alcaldía): *We decided we'd like to place a facility in this space, but we started raising questions. We've thought a lot about the mobility of the area: putting something exactly here could create more congestion—or maybe we can help relieve it. So, for now, our questions are: Is this a good location for a project in this area? How would it affect mobility in the sector? What positive and negative socioeconomic effects would this project bring?*

And the last question we were going to write was: What would happen to the houses surrounding this sector?

Facilitator: *I really like that you're already thinking of many questions. As the Mayor's Office, remember you are the ones who set the standards.*

Prof. Marin: *You set the rules; you don't just ask 'what would happen if...'. You define the limits.*

Facilitator: *So part of the exercise is: as the city, what do I want from housing here? What do I want to achieve in terms of mobility? From the interviews, we know there's pressure to prioritize the commuter train. And we always think of that little triangle: first the pedestrian, then the bicycle, then the motorcycle, then the car.*

Prof. Marin: *And before all that, public transport.*

Facilitator: *Right, public transport first. For this project, the train will be the main actor in mobility. On the socioeconomic question: it's interesting that you're asking about the future, but we should also ground it in what's happening now. There are informal invasions: what will happen to them? What will happen to the commerce that depends on those invasions?*

Along Calles 23, 25, and 39 the edge is supposed to be mixed-use. Are there already many businesses? Note this in the label so you remember quickly what each question was about, and if needed, add another post-it next to it.

Student 3 (JAC): *We have another question—we're already writing them down. One was: How do we mitigate vehicular flow for access to the neighborhoods in the sector?*

Facilitator: *Okay, since it's a predominantly housing area...*

Student 3 (JAC): *And the neighborhoods are very tight, almost closed, our concern is how this urban project will affect vehicle flow, like in the rest of Cali, for people who already live there. The other question is: How would the project integrate the merchants currently in the sector, so they can adapt but the local economy is not destroyed?*

Facilitator: *Perfect. Now, for each question, add a label—a keyword we'll use in the next exercises. For example: 'merchants' here.*

Student 3 (JAC): *I think there could be two: 'vehicular flow and 'access to neighborhoods'.*

Facilitator: *If you have two labels, that can also mean two distinct questions. You might ask one just about vehicular flow, for instance, if you don't want cars entering your neighborhood and you want a super-block, how will you limit vehicle*

access so people don't constantly try to cut through?

Student 3 (JAC): *Right, because once there's more flow, there are more traffic jams, more detours... And another question we wrote was: Since this is a low-income housing area, how could the project benefit (or harm) life in the locality?*

Facilitator: *Good. Let's land it again in concrete dynamics: beyond informality along the canal, there are almost no green areas, almost no parks, very little equipment. What could be done there? You can use the images I added to get ideas. It's about moving from general questions to more specific ones.*

Student 3 (JAC): *So, going from general to more specific benefits.*

Facilitator: *Yes?, benefits and conditions. Think about equipment: there's very little now. This is a big, strategic area: we have the sports complex, the supply market (the gallery), and very close on the same axis, the Simón Bolívar terminal. So maybe the question is: What equipment is missing here? What type of facility could unify those others and consolidate them in the territory?*

Student 3 (JAC): *Of course, whether there's a need for new equipment, and what kind of facility could tie those existing public services together.*

Facilitator: *That's a very good question. Later we'll explore options for those facilities and also how much effective green and public space the community actually has. Right now that strip is practically a garbage dump. People don't walk there; they don't like being there.*

Prof. Marin: *It feels very unsafe. I don't think even local residents really use that space.*

Student 3 (JAC): *I wouldn't take people there.*

Prof. Marin: *I wouldn't take them to visit. A very*

negative experience.

[10 minutes later]

Facilitator: *How are your questions coming along? Are you done? Can I copy them?*

Prof. Marin: *With what you have, we'll move forward.*

Facilitator: *Great. Let's go one group at a time so you can briefly explain your questions. We'll start with the Mayor's Office.*

Prof. Marin: *While the Community Action Board presents, the developers should listen carefully, because they will need to incorporate those community demands into their projects—either by responding directly or proposing alternatives. And the Mayor's Office will act as mediator, setting limits both for the community and for the developers.*

Facilitator: *We'll also check for overlapping or very similar questions and repeated labels. Each label should represent a distinct topic.*

Prof. Marin: *Given that this is a renewal area, one of our key questions was: How can we mitigate the increased flow of people and vehicles that renewal will bring? How can we mitigate vehicular flow for access to the neighborhoods?*

Student 3 (JAC): *OK.*

Facilitator: *Maybe we rename the label to something like 'access to sector' or 'vehicle access'. Just so it's distinct from other tags.*

[...]

Student 2: *Another question we had was: How can homes be re-valued so they're not so easy to sell off?*

Facilitator: *And how did you label that one?*

Student 2: *Housing. Because the gallery area needs more premises, warehouses for trucks, fruit storage, etc. What I've seen is they're buying existing houses and gutting them inside to use as warehouses. That affects residents, and later, when the space is no longer needed as a warehouse, what value does that house have once its interior has been demolished? It's no longer really a house.*

Prof. Marin: *So what you want to know is how to prevent the negative impact of the expansion of storage for the Santa Elena gallery.*

Student 2: *Exactly. Because it not only reduces the value of that house, it affects neighbors who may not want to keep living there, and prices can drop.*

Prof. Marin: *As developers you must propose a solution: maybe by building proper warehouses elsewhere, or by designing housing in a way that makes that use impractical. The underlying question could be: How do we prevent the storage needs of the Santa Elena gallery from being met in the very sector where we're investing?*
[...]

Student 3 (JAC): *We also asked: What strategic alliances can be established with the public and private sectors to execute and maintain the project?*

Facilitator: *That's a good question, but first we need clarity on what project you're proposing, mixed housing, only housing, mixed use? Once you know that, the question might shift to: If we want a mixed project, where could it be located? Which actors (public and community) do we need alliances with?*

Prof. Marin: *The alliance question is a bit 'advanced' for this stage because alliances depend on whether you're talking about housing, commerce, public space, etc. For now, place that under location and project type, and later we'll return to which actors to engage*

Facilitator: *A sub-question might be: How do we preserve the existing community we're displacing within the new housing project? Or, if your developer persona wants a very different population, then that leads to a different set of questions.*
[...]

Student 2: *We also wondered if that street is really the most optimal place to put the green corridor and train, considering that other axes like Carrera 70 have wider profiles and MIO stations.*

Facilitator: *It's a very good critical question, but for this exercise the train alignment is fixed. The corridor is already designated as national land, so they don't need to buy more land. That's why it was chosen. Take that as a constraint and focus your questions on what can be done within this specific section.*
[...]

Student 4 (Alcaldía): *Another question we wrote was: What will happen to the informal settlements and housing in the sector? Many of those households don't have the right to claim full compensation for the land, and there are also formal houses that would be affected.*

Student: *So the question is about social problems: what will happen to all the people living there?*

Prof. Marin: *That's a crucial question for the Mayor's Office to ask. It's a neuralgic issue: what are we going to do with the people who live there?*



Figure 89: Compilation of Decision Areas (source: Group B collab)

Facilitator: *Now that each group has identified their decision areas and described them, the next exercise is to map the connections between questions, how mobility, housing, economy, public space, and social issues link to one another. We'll use your labels to move into Decision Links.*

s02 9-10 (10min): With the socialization of the Decision Areas from each role to the whole group (see figure 89), the Decision Link concept was introduced, turning what had been a simple, overly tidy list into a more interconnected structure. Initially, the first set of links they made still felt more like a neatly ordered list of separate areas than a truly relational map.

Access and safety brought together vehicle flow, mobility, and crossings into a single package, while economy and livelihoods linked local economy, housing, and warehousing impacts to highlight how land use and stability are interdependent. Facilities and location then connected equipment, housing, and placement decisions so that these elements could reinforce each other in an integrated way instead of remaining fragmented see fig. 90.

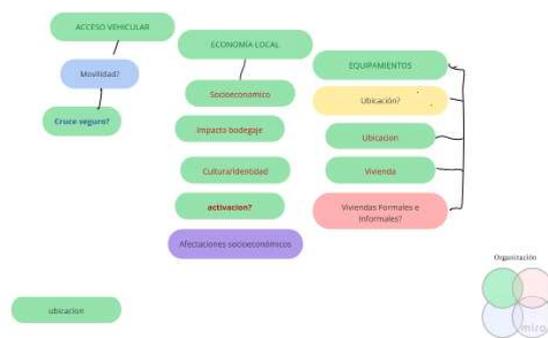


Figure 90: Initial Decision Graph (Group B collab)

Therefore, the group was asked to try again, this time using fig. 36 (Friend & Hickling, 2005). With its categories and decision levels, it became easier for participants to combine decision areas and explore different types of links and relative importance between them. Although they had already been asked to “tidy up” and give each Decision Area a clear surname, this process proved difficult because many areas shared the same title while referring to completely different core ideas proposed by different roles. This, in turn, made it harder to connect them and caused many potential options to be lost.

Finally, with this decision graph, the focus problem concept was introduced, while commenting to the students, that, this focus could also help distribute the load of decisions into other dependencies as shows in Friend & Hickling, 2005 (figure 40 and 41).

With this new interpretation, the diagram illustrates how a decision graph organizes multiple related decision areas into broader categories—such as location, mobility, socioeconomic, housing, and environmental—so they can be prioritized and addressed collectively rather than as a scattered, confusing list. because, as it was explained for the interconnectivity of links, a relatable analogy was used, in fererence to an atelier class in bachelors: “Sometimes we think this room has nothing to do with the cafeteria... but... I get hungry and I need to get to the cafeteria”.

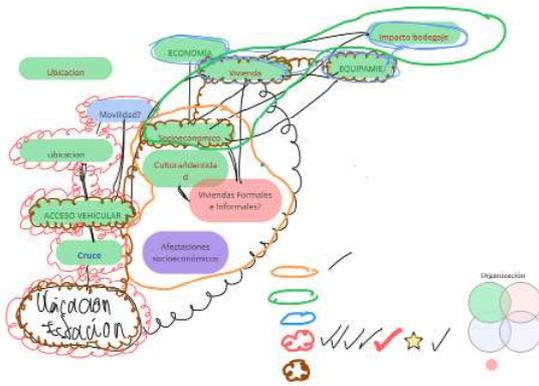


Figure 91: Selected Focus Problem (Group B collab)

Finally, the focus problems were concerned with movility, other options that joined all social-economical decicions and some logistical, The selection was nearly unanimous, showing broad agreement among participants, and which was centered on **Mobility, Location, Vehicular Access, Safe Cross and the Station’s Location**, recognizing this cluster as the strategic anchor.

Facilitator: For example, mobility, location, vehicular access, and lighting could form one problem focus that we assign to the Mayor’s Office or the Secretariat of Mobility. Another group of questions—socioeconomic issues, culture, iden-

tity, housing, affected families—could form a different focus to be tackled by the Mayor’s Office together with the cultural department and the community. So, mark your questions, draw small circles, and let’s define which problem focuses we have.

Prof. Marin: Use lines, even different colors. A question about housing can belong to more than one focus, like in a Venn diagram.

Facilitator: Right now we’ve found two focus, are there others? They don’t need to be huge; we might end up with three or four.
[...]

Facilitator: Now we’ll all vote on which focus seems most important to move forward with. Often these focuses are grouped by category and actor, but in real projects we also prioritize by urgency. Sometimes we must define the station location first, because all the other decision areas depend on it. It’s like a domino effect: certain decisions unlock the rest.

Since we’ve chosen a decision focus and identified five decision areas, the next step is to generate options for each area. Because there are five areas and three groups, two groups will take two areas each, and the smaller group will take one but help others when they have ideas.

Each previous question now needs possible answers. For example, for the station location, options might be: keep it where it is, move it closer to Calle 39, place it near Calle 42, shift it slightly, or even remove it. For safe crossings, options could be: level crossing, underpass, overpass, etc. Be very specific: if the decision is about mixed housing, define whether you’d locate it on 39, 23, or 25, and over how many blocks. Give each option a short label and a brief description so everyone understands the solution being proposed.”

“You can also consider options that activate

the area: a normal traffic light or one with a push-button to help pedestrians; periodic community fairs; a cultural space on the platform; or continuous commercial fronts with glass display windows so there are always 'eyes on the street'.

This focus prioritized acts as a domino effect: clarifying where the commuter train station sits between Carreras 39 and 42, how pedestrians cross high-traffic zones, which transport modes are prioritized (train, pedestrians, bicycles), how vehicles access the area, and where mixed-use housing is placed together determine the flow of people, the value and form of surrounding property, and the configuration of public space see figure 92.

session. The idea was for students to come prepared, keeping in mind that each option within a decision area should stand alone—meaning it is either one option or the other—so as to avoid combining complementary options within the same area.

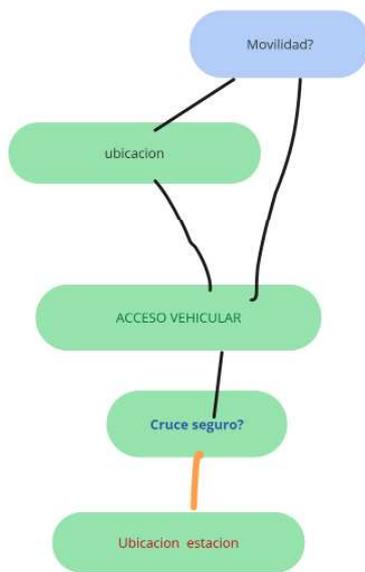


Figure 92: Isolation of Selected Focus Problem

By addressing these core physical and movement decisions first, the workshop pivoted from broad community concerns—insecurity, waste, informal settlements—to concrete urban design questions that enable tangible solutions. Afterwards, with little time remaining, the concept of decision options was briefly explained and assigned as group homework for the next

Session 3 - Designing and Comparing On the application of SCA + UA

October 29th, 2025
(10 Participants)

s02 1-11 (12min): Before the session started it was clear that the participants, the group of developers were working on their options before class. and this gave way for latter. as the session began, it was firsts talked about their examn being confused on what would occur, but even us werent certain until the session was over, with whatever we could acomplish/advance on sca would be used for the final delivery.

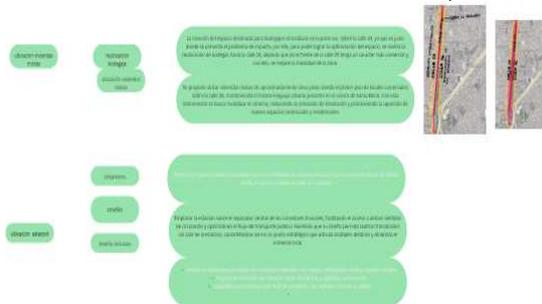


Figure 93: Decision Options from the developers_wed.

s02 12 (35min): With that in mind, we began by reviewing the sector, its context, and the defined decision areas, paying particular attention to the focal problem identified in the previous session and the options required for the next exercise. Since only one group had prepared options in advance, pen and paper were distributed so the other two groups could develop their own.

Guided by Prof. Marín, students were asked not to invent ideas randomly but to generate options that were the complete opposite of those already defined. For the developer group, this ensured that each new proposal was truly non-complementary within a single decision area, rather than just a variation of the same idea. The professor then helped them correct and sharpen these options, since many were initially too similar and did not provide real contrast. It was important to remind them that the shorter the label, the easier it is to keep mov-

ing forward, because the methodology needs to stay dynamic, whether it is used on a digital platform like Miro or on paper.

One issue that could be seen as both positive and negative was the decision to have groups create only opposite options to those already proposed by the developers. On the negative side, this limited the generation of options in other decision areas within the focus problem, making the process less connected to broader decisions. On the positive side, it made the exercise run more smoothly than Group A's session, since there were fewer elements to manage during the design phase. This may also explain why participants found it easier to grasp the compatibility exercises and understand how the scheme list (the "matrix," as we called it) was constructed.

Facilitator: *The task was to finish defining decision options for each area. How did you develop yours?*

Prof. Marín: *Let's start with the location of mixed housing. Which group worked on that?*

Student 2 (developer): *In the first option we're adding services and public spaces for passenger comfort. More than just a station, we want a kind of green lung, an urban space, not only for transport. We were thinking of something like the big university or sports stations, but more focused on environmental aspects (green areas where people can be, have internet) so it becomes an urban place, not just a transport node.*

Prof. Marín: *Here you wrote 'relocation of warehouses'. It says that warehouse use has invaded space on Calle 23, so to optimize space you would re-group the storage and leave Calle 25 more commercial, right?*

Student: *This maintains the mobility of the zone.*

Prof. Marín: *So you're proposing to relocate the warehouses but keep them in the sector, reorganized so they serve the new project instead of being removed entirely.*

Student: *Yes. For the first two items we looked at how other neighborhoods are formed, especially Santa Elena, to guide the location of mixed housing. Once warehouses are relocated, 25th Street could host new mixed-use buildings: commercial premises on the ground floors, like in the center of Santa Elena, and housing on the upper floors instead of the current uses.*

Prof. Marín: *So the model is: commerce below, housing above, and warehouses pushed to the back of the block. That ties into your other option: placing the station on the central median of the trunk line, like the Sports Unit station, so people can go underneath, optimize public-transport flow, and allow transfers in both directions.*

Student 2: *Yes, not just to generate more flow, but because of the character we want for the neighborhood. Moving warehouses to the other side and reinforcing commerce on 25 helps mobility and fits the area's commercial nature.*

Prof. Marín: *In this type of solution you generally have three or four classic options: pedestrians at level and cars below; cars at level and pedestrians below; cars at level and pedestrians on a bridge; or, less commonly, cars above and pedestrians at level.*

[15 min have passed while discussing the options provided by the developer group]

Facilitator: Since the other teams couldn't fully develop their options, here's what we'll do: we'll use the developer group's ideas as one set of options, and the other groups will now propose contrasting options for the same decision areas. We need options that are truly opposite, so we can compare them later in a matrix. For the

station, for example, one option might place it at ground level with vehicles below, another elevated, another entirely underground. They shouldn't complement each other; they should outline a clear range of alternatives.

The same applies to housing: your first proposals were complementary—housing on both sides of the street, or housing above warehouses. Those are good, but now we also need clearly opposed options. The goal is to define these contrasting alternatives quickly, so in about ten minutes we have a full set ready for comparison.

Prof. Marín: *So, the Community Action Board and the Mayor's Office will each produce at least one option that is contrary to the developer's proposal for both station location and mixed housing. Don't repeat their idea; propose something different. For example, closed residential towers with all storage moved out of the area, or a very small, simple station only for boarding and exiting buses, without extra programs.*

Facilitator: *Think like a Community Action Board: what would you like? If their station is a big central hub, maybe yours is minimal and elevated; if their housing mixes commerce and storage, maybe yours separates them completely. Label the options clearly—mention if pedestrians are at level, if cars are below, if there are bridges, etc.—so we can tell them apart.*

Prof. Marín: *Remember the logistics/storage issue: you yourselves said Santa Elena's expansion is pushing storage into nearby houses. As JAC, would you like all that filled with warehouses, or prefer only housing? Maybe you propose apartment towers so there's no room for informal warehouses.*

Facilitator: *You could even suggest towers with underground logistics or basements for storage, which is still mixed use, but very different from the developer's surface warehouses. The import-*

ant thing is to be creative and to produce at least two options per decision area.

Student: *We wrote: ‘Apartment-type buildings on a commercial platform, with housing towers and logistics basements.’*

Facilitator: *Great. Keep that description, but give it a short label. The description is for anyone reading the sheet; the label is for us to ‘play’ with later.*

Student 4: *Our other option is: do not mix housing with commerce. Centralize commerce in a single facility and separate residential areas. We imagine a building in height to gain space and create something like a market hall exclusively for organized commerce, apart from the houses.*

Facilitator: *Perfect. So one option is mixed housing over commerce with storage below; the other centralizes commerce in a dedicated facility and separates it from housing. These are clearly different.*

Student 4: *For the station we proposed it could be below, all on the same plane above for pedestrians, but using it mainly for pedestrian use.*

Student 3: *Or everything on one plane, raising the station slightly, with traffic lights regulating vehicles.*

Facilitator: *So one option is an underground station with pedestrians at level, and another is everything at grade with traffic lights ensuring crossings. Let’s label those clearly. [...]*

Facilitator: *Have we all managed to generate options? The key is that each decision area (station location, mixed housing, logistics/storage, etc.) now has clearly alternative options. With these in place, we can move to the next exercise.*

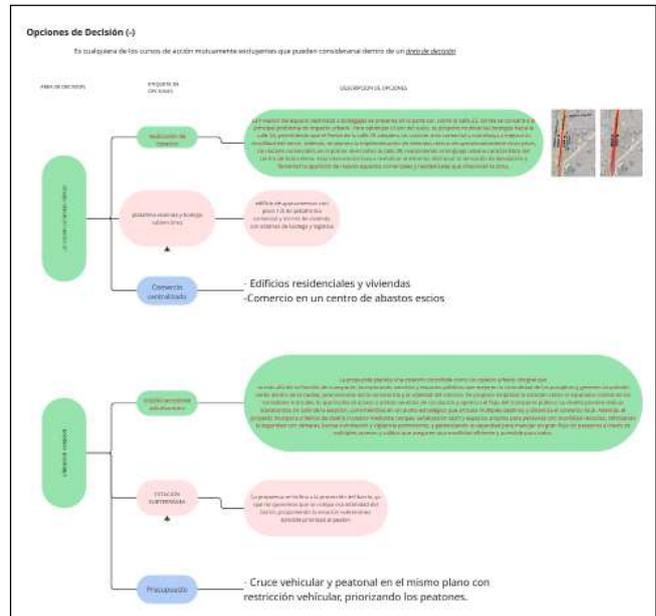


Figure 94: Decision Options from Group B

From the developer’s options reviewed as homework, students produced a final set of mutually exclusive decision options (figure 94). These were organized into two main areas: **Reorganizing land use around the warehouses** and **Designing the new station with its crossings**.

For land use, proposals focus on relocating warehouse activities and concentrating commerce in a formal, centralized market, while freeing surface space for residential buildings and mixed-use apartments supported by underground logistics. This approach seeks to reduce conflicts between heavy storage uses and neighborhood life, while stimulating new commercial and housing opportunities. One group specifically suggested reordering the Galería Santa Elena sector by moving warehouses to Calle 16 and giving Calle 25 a more commercial character.

For the station, options contrast a more integrated urban-design approach—transforming it into a green public hub with services, light-

ing, surveillance, and multiple access points—with a more protective, mostly underground solution that minimizes intrusion into the neighborhood and prioritizes pedestrian safety by restricting vehicles and keeping crossings at the same level. One group described this vision as “more than a station, a green lung, an urban space, not just transport.”

Overall, the choice lies between open, integrative urban transformations and contained, protective configurations, both aiming to improve mobility, safety, and quality of life.

s02 13-14 (35min): Since there were only a few options, the table was straightforward to complete and understand. A key debate emerged when the Alcaldía’s limited budget was compared with the Community’s complex warehouse reallocation. The facilitator explained that these were incompatible, since the Alcaldía’s budget assumed the “invisible hand of the market” would manage organization without intervention. Likewise, in discussing costly underground options, the facilitator clarified that the issue was not just technical feasibility, but whether the options were logically incompatible.

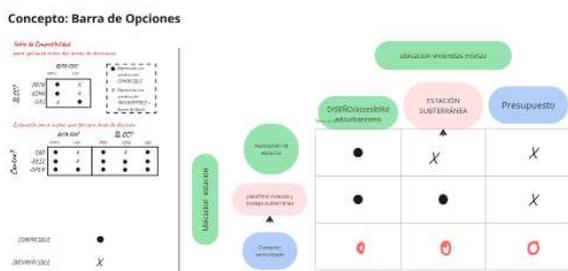


Figure 95: Group B's Option Bar

Facilitator: *With these decision areas and options, the next step is to check compatibility. The method offers two tools: an option bar (a small table*

where we compare option vs. option between two decision areas) or an option graph (two circles of options where we mark links, indicating which pairs are compatible or incompatible). In the table we'll mark a dot for compatible pairs and an X for incompatible ones.

So, Mayor's Office, you have the final say—please take on that role.

Prof. Marín: *Is it compatible to relocate warehouses and housing so the station can be built with good design? Yes, that's compatible. And relocating houses so they're on one side and warehouses on the other, is that compatible with an underground station? It could be compatible and viable.*

Facilitator: *If it's viable, why call it incompatible?*

Prof. Marín: *You're right; one alternative is a station at level, another is a station below, but both can work with separated housing and warehouses. They're different design options, but still compatible, because station type doesn't necessarily affect how housing is organized.*

Facilitator: *Although I also see a case for incompatibility: you could decide the station stays only on the housing side, not on the warehouse side. If you want that reading, we could mark it as incompatible. Do you all agree?"*

"And what about the budget option you suggested—that the station be a 'typical' station at grade, with minimal changes?"

Prof. Marín: *That one is incompatible. It's incompatible because the community and the other team want housing and warehouses in clearly different locations. If the budget scenario assumes as few changes as possible, then that would not allow the relocation they're asking for; it relies on the 'invisible hand' of the market to organize things, not on deliberate design.*

Facilitator: So, are we all agreed that this budget-minimal option is incompatible?

[...]

Facilitator: Now, about the option with platform, housing towers, and underground warehouses, with accessible design and good urbanism—could you describe it again?

Student: Basically, we proposed locating all the warehouse and logistics area underground, and then on the building

Student 2: placing all the commerce on the first floors to integrate it with the sector.

Student: And from there, towers rise up for housing, a typology that's already used a lot here.

Prof. Marín: Developers, do you think this is compatible?

Facilitator: I see many 'incompatible' marks, but Vanessa thinks it's compatible, why?

Prof. Marín: It is compatible, because we're not comparing the specific previous option with this one line-by-line; we're checking whether they can co-exist as alternatives in the same decision area. You suggested warehouses moved to another block, with commerce on the first floor and housing above—two or three stories. This new option is similar: warehouses are not on the street but underground; commerce forms a platform, and above that you have apartment towers. It supports accessible, urban design. It's a different idea, but still aligned, so I'd mark it as compatible.

Facilitator: It also fits the idea of creating a stronger commercial and urban center around the station, so it feels coherent.

Student 2: I think the issue is that putting food warehouses underground is very problematic. These

are not just vegetable warehouses, they store meat too. So how are those warehouses going to function underground?

Facilitator: It could work with sufficient technical studies and a huge budget.

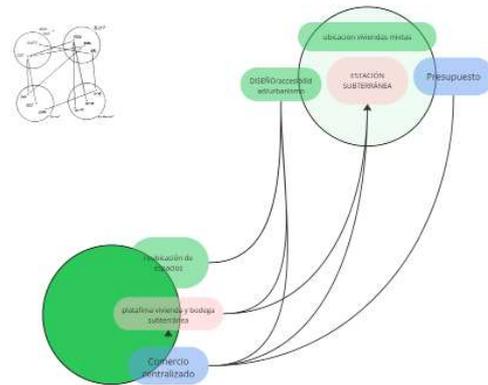


Figure 96: Group's B, Decision Graph

The whole group finished compiling the incompatibilities, and students filled out a matrix to check whether their chosen options could logically coexist. The only incompatibilities identified were: **the platform with underground logistics versus budget**, and **relocation of spaces versus the underground station and budget**. With the same ease, the decision graph was completed, allowing the process to move forward. Regarding expensive subterranean options, "It is the difference between whether something is feasible vs. if it is incompatible".

Facilitator: For the compatibility graph, we'll draw each decision area as a big circle and place its options inside. Then we connect options with lines, marking where they are compatible or incompatible, whichever is easier to see. This is another way of visualizing option bars between decision areas.

Prof. Marín: If we draw it that way, some options will clearly be incompatible with several others, but we're not reading it that way yet.

Facilitator: Right, this is the same logic as the table; it's just drawn as a graph. You can choose to draw only incompatibility lines to keep it clear. For example, we already know that 'relocating spaces' is incompatible with the 'minimal budget' option, but compatible with design and accessibility options; the 'platform + housing' option is compatible with those too, and commerce is compatible with all three. With many options, sometimes a quick line is faster; other times, the table makes relationships more visible.

Prof. Marín: On Monday, the little table was easier; with so many options, the graph became hard to read.

Facilitator: So we'll build a matrix now: labels from one decision area along the top, labels from another along the side. This is where we'll apply your arguments, this is too expensive', 'this doesn't work functionally', 'this inconveniences residents', to decide which pairs we cancel out.

With that in mind, I'll clear the board so you can focus on the matrix.

As the schemes became clearer, tensions rose: the developers disliked that the community group had proposed very extreme, opposite options to theirs. In the debate, the girls in that group explained at length why certain ideas would not work, which became a perfect moment to ask them to write down those arguments for the upcoming comparison of decision schemes. After this clash over mixing options, Prof. Marín suggested that each group take its scheme and draw its own version for the final evaluation.

Student: *What worries us is the warehouses, or really the whole platform. Structurally it's not feasible, not just because of budget, but for the whole area.*

Facilitator: *I love that point. While we're checking compatibility, also think about feasibility—financing,*

function, structure. List the structural issues you see. Those notes will be crucial for the next exercise, when we compare options more seriously. Please write them down.

Prof. Marín: *And what about centralized commerce?*

Facilitator: *Mayor's Office?*

Prof. Marín: *When you say 'centralized commerce', what do you mean exactly?*

Student 4: *A gallery, a market hall, everything in one place, and separate it from the housing.*

Prof. Marín: *So you have a complete proposal: a single commercial facility, like a shopping center or gallery, and housing apart from it. That's different from the earlier mixed-use proposal, commerce on the first floor, housing above, warehouses nearby or on another block. Now, could this centralized-commerce idea be compatible with design, accessibility, and urbanism? Yes, it can: you can design it accessibly and with good urban planning. With budget it could also work. With an underground station, we'd need to ask whether putting the station below would actually prevent that centralized market from being built.*

Facilitator: *Would an underground station make centralized commerce impossible?*

Student 3: *No, not really.*

Facilitator: *So centralized commerce is not incompatible with the other options.
[...]*

Facilitator: *So, for the station location decision area, each option (budget, underground, design/accessibility) will generate potential schemes. In theory, each could combine with all three housing/logistics options. But based on the compatibility work, we know some combinations are impossible. Think of each combination as a design scheme, like when you present at least three very different proposals to a client.*

Prof. Marín: *Looking at our matrix, we see, for example, that the budget option is incompatible with relocation and with the platform scheme, so it can only combine with centralized commerce. The underground sta-*

tion is incompatible with warehouse relocation in one reading, but compatible with platform + housing and with centralized commerce. The design/accessibility option is compatible with all three.

So, in theory, we'd now compare all resulting schemes—budget + centralized commerce, underground + platform, design + any of the three—and evaluate them. To simplify, each group will now develop one scheme:

The Mayor's Office continues with its scheme.

The developers continue with theirs.

The Community Action Board develops the centralized-commerce scheme.

Do you agree? It's basically the scheme you already proposed, just taken forward as your final option.

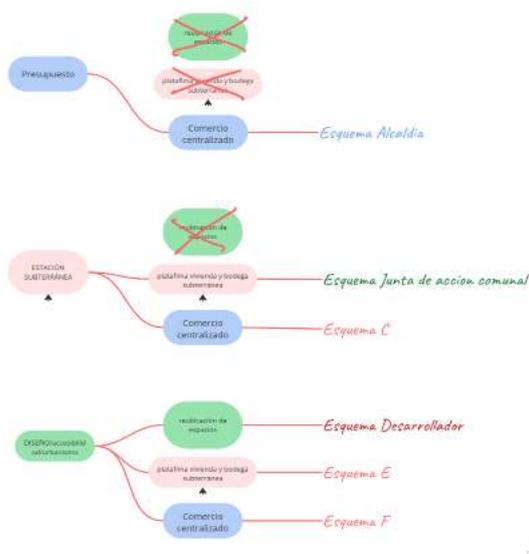


Figure 97: Group's B, Decision Scheme Matrix

The Alcaldía proposed organizing mixed housing with a reduced budget, while locating the station as a centralized market.

The JAC envisioned mixed housing supported by underground logistics and a platform-tower arrangement, with the station itself placed underground.

The developers suggested mixed housing through relocation of spaces, and a station designed with a focus on accessibility, urban design, and integration (as described in their long explanation).

The next step focused on creating detailed comparison areas. Building on lessons learned with NotebookLM, the activity was revised. Students were asked to provide thorough explanations of their areas—defining ranges, expectations, and possible implementation strategies. They wrote these on whiteboards while Prof. Marin helped prepare the schemes as source material.

Each group then described their position almost like an interview, while the session was recorded. A cellphone captured the overall discussion using Google's recording app, and the iPad captured directly each interaction using ChatGPT's transcription support, files were compiled into NotebookLM.

NotebookLM was introduced as a tool to process research notes and interviews, explaining that it could "compress about two months of work into a few minutes."; having in mind the safety clause, AI does not consult external sources, but works only with the materials provided by the researcher.

Each group had their general focus, Alcaldía: Stressed that government investment is not about profit: "The mayor's office doesn't earn a penny... it earns it to the extent that citizens improve their quality of life."

The developers: Proposed a skyline limit, insisting the sector remain low-rise, not exceeding five floors. prioritized return on investment, aiming for a 25% return in 10 years. While the JAC,

was more concern about the good qualities of dividing the uses or activities like logistic, daily life/commerce and housing by levels instead of zones. their general preoccupation was flow, community and security.

piled into tables and text in the MIRO for use and reference.

In the final steps, with limited time remaining, the facilitator briefly explained how NotebookLM would support the groups in shaping their project delivery. Students then completed the surveys, and the missing concepts were clarified to ensure they grasped the ultimate goal of SCA, even if its full application was not yet finished.



Figure 98: Group's B, Comparison Areas by role and the NotebookLM done with the information (Source: Pictures taken during workshop and Tables done by NotebookLM)

Finally, The images below illustrate how the comparison areas and structures were organized for the final delivery. These materials were uploaded to Miro as references for the consultants and served as a guide for Prof. Marin to prepare the final document

Groups also defined the values or criteria for judging their urban schemes using a 1–5 scale for those comparison areas which were com-

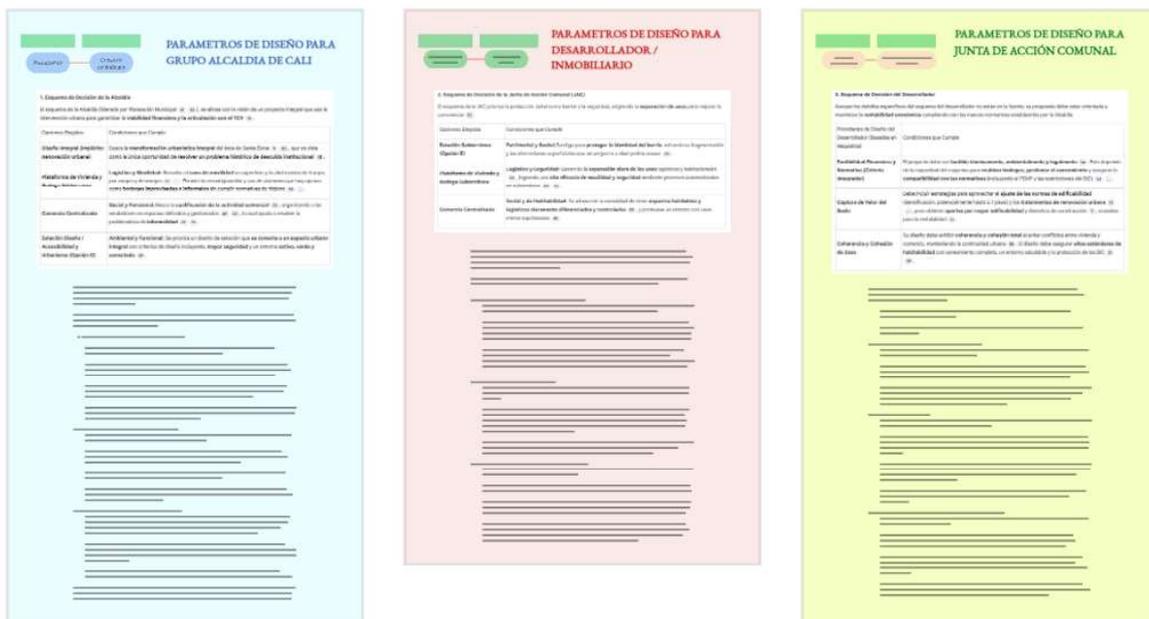


Figure 99: Notations from NotebookLM suggestion for the final examination for each Role. (source: NotebookLM)

Deliveries - SCA + UA group

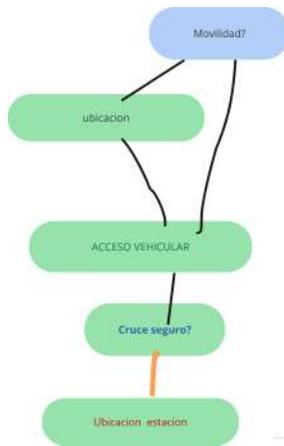


Figure 92: Isolation of Selected Focus Problem

As a reminder, the main issues identified by this group were related to **mobility, including the placement of mixed housing, vehicular access, safe crossings, and the location of the station, as well as considerations of whether it would be financially viable**

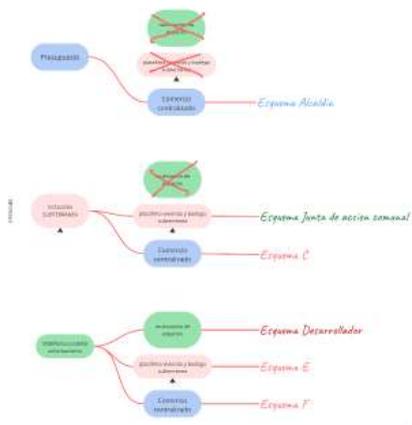


Figure 97: Group's B, Decision Sheme Matrix

After some processes, the problem focus of 5 areas was left with only two, each with 3 options, this way each group/role selected to develop the scheme that the combination of their options:

Alcaldia: (Budget → Centralized commerce)

Developer: (design/mobility/urbanism → Re-

location of spaces)

JAC: (Underground station → platform-towers for housing and commerce)

In contrast to Group A, which on Monday directed its attention to the canal, this group concentrated on the spatial positioning and elevation of the station. Additional discussions addressed the sector designated for mixed housing, which evolved into a comparative debate between locating residential units and expanding warehouse facilities for the Santa Elena market—drawing parallels to the “Proyecto de manejo especial para la galería Santa Elena” (Special management project for the Santa Elena gallery).

The comparison areas presented a distinct dynamic. It was not entirely clear whether the heightened controversy stemmed from internal interactions, yet the exchanges often resembled a competition over which proposal offered the most compelling scheme. Consequently, several comparison areas were elaborated in considerable detail, reflecting participants’ personal convictions more strongly than the perspectives of the roles they were assigned to represent.

Within this framework, the **Alcaldía** emphasized that government investment should be evaluated in terms of its capacity to enhance citizens’ quality of life rather than generate profit. The **developers**, by contrast, prioritized financial viability, proposing a skyline restriction of five floors and projecting a 25% return on investment over a ten-year period. Meanwhile, the **JAC** underscored community priorities as advocating for the vertical separation of activities—logistics, commerce, and housing—to promote flow, cohesion, and security.

Deliveries - SCA + UA group

JAC (Comunity action board)

SNG +S

Selected scheme:

Housing apartments with commercial uses on floors 1 and 2, with underground storage and logistics (proposal for the implementation of an underground train).

Key options:

- Link public facilities.
- Promote high-rise housing.
- Underground product storage.

Central argument:

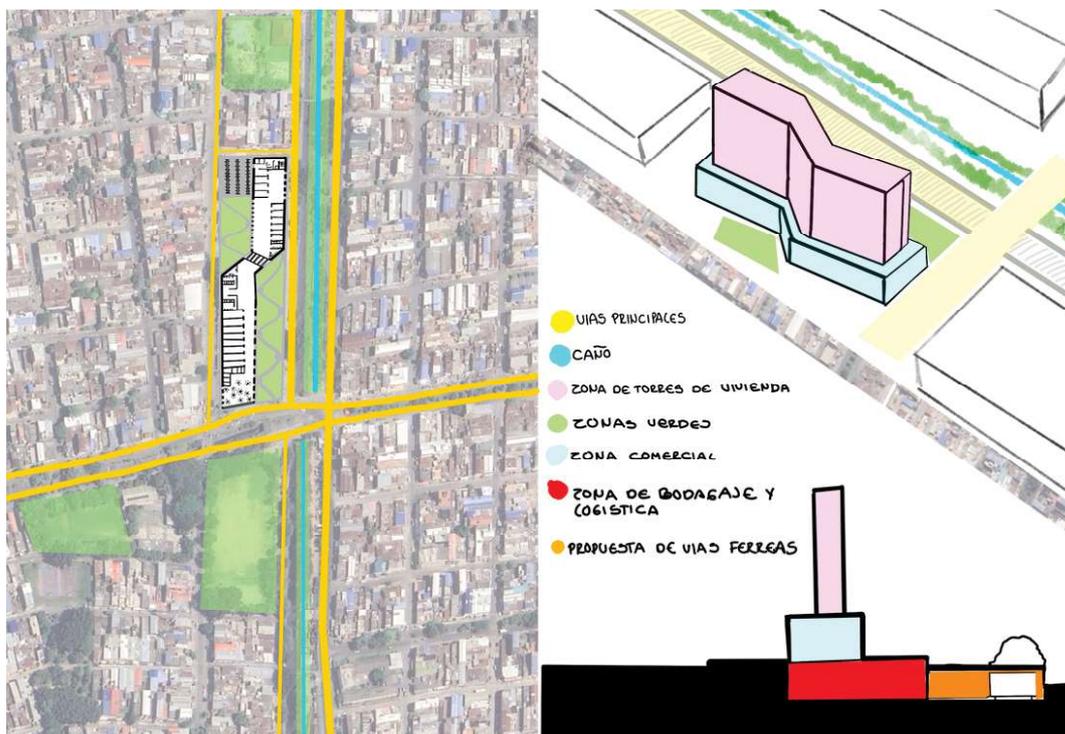
The proposal is based on a three-section building. On the public ground floor and second floor, a set of commercial premises is proposed, with plazas for public circulation. The upper floors are converted into spacious residential apartments. Finally, the restoration of the train tracks is proposed in an underground manner for more efficient transport, with underground warehouses, thus connecting these two elements to automate processes and transform logistics.

Success criterion:

Integrated urban efficiency and profitability. The proposal manages to maximize land use by combining commerce, housing, and underground transport, generating a functional and profitable urban system. The connection between the underground warehouses and the train tracks automates logistics processes, reduces operating costs, and improves mobility, while the commercial and residential spaces increase density and the economic value of the sector without affecting public dynamics on the surface.

Legend:

- Main routes
- Canal.
- High-rise housing zone.
- Green areas.
- Commercial area.
- Storage and logistics area.
- Proposed railway lines.



Figures 100-101: Localization of project and Volumetric scheme of the JAC_B.

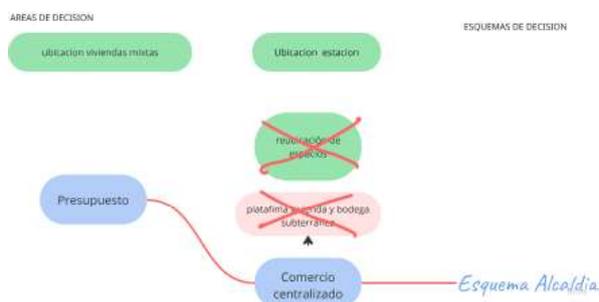
Deliveries - SCA + UA group Alcaldia (Mayor's office)

JC+AG+EM+CT

Purpose of the project: Designed to maximize confort in reduced spaces.

Actor: Mayor's Office of Cali

The mayor's office leads, coordinates, and ensures that land-use planning is properly designed and implemented, seeking balanced, sustainable, and safe development for all residents of the municipality.



Chosen scheme (from figure 97):

A centralized commercial area is proposed where the zone's informal commerce can be formalized and the residential life of the place rehabilitated, allowing both environments to fully coexist. This creates centralized commercial facilities linked to the railway line and to the green corridor.

Central argument – “The Why?”

Over a 20-year period, in the territory of Valle del Cauca, travel times can be significantly reduced, offering high levels of confort and optimized consumption of, and impact on, natural resources.

KEY OPTIONS:

Centralized commerce:

This makes it possible to bring order and reduce informal commerce, which generates environmental problems and garbage. By formalizing this commerce, it becomes possible to exercise control over it.

Predominantly residential:

Ensuring that the area is predominantly residential allows for a greater flow of people at different times of the day, which provides more safety for the area and a sense of belonging to what is in the public space.

Station, road and pedestrian crossing on a single level:

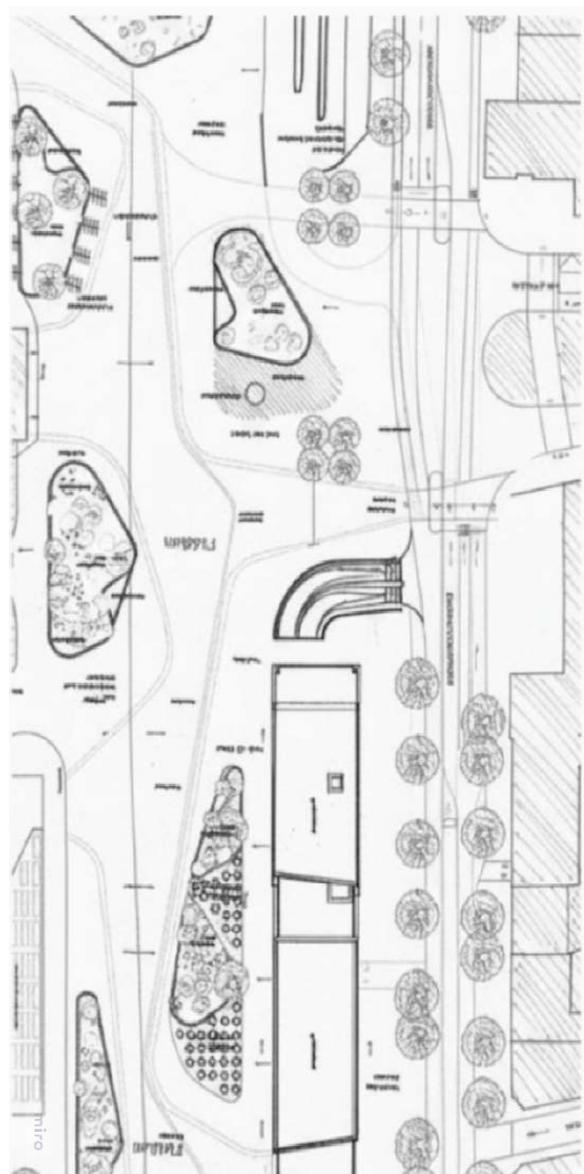
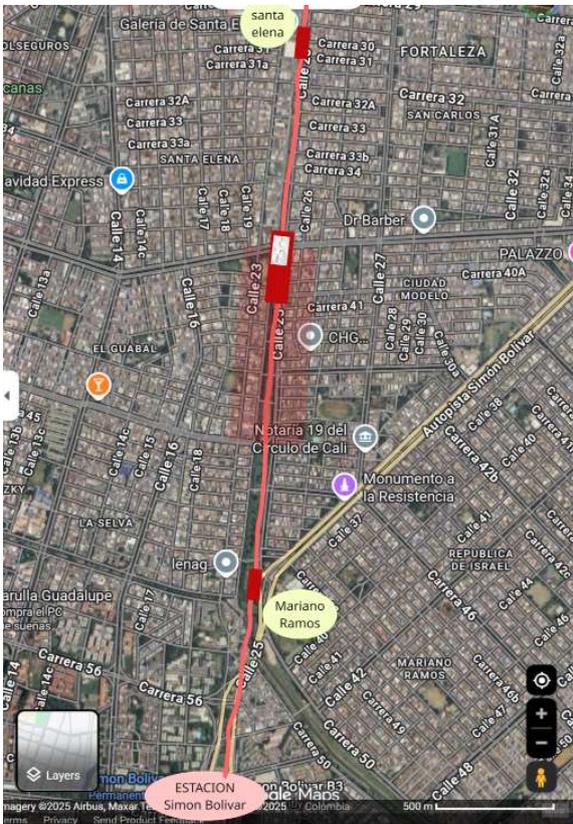
Building the commuter-rail station of the Green Corridor, with both pedestrian and vehicular crossings on the same level, helps lower project costs and use a model that is already proven in the city and functional, ensuring greater project success.

SUCCESS CRITERIA:

Efficiency: The project has a strategic location and connection to the city's road network, which results in better indicators of project performance.

Initial investment: As the project with the lowest budget, it can start more quickly and be completed in a shorter time, which reduces the impact on the neighborhood and the city.

Economic development: It seeks to revitalize the residential life of the area, which provides safety, and organized commerce generates greater trust among citizens.



CONCLUSION:

If you are the Mayor’s Office, show how keeping the current scheme as much as possible and making only minimal interventions while protecting the budget is the best alternative to trigger transformations in the sector. Take a clear position regarding densification.

Figures 102-104:

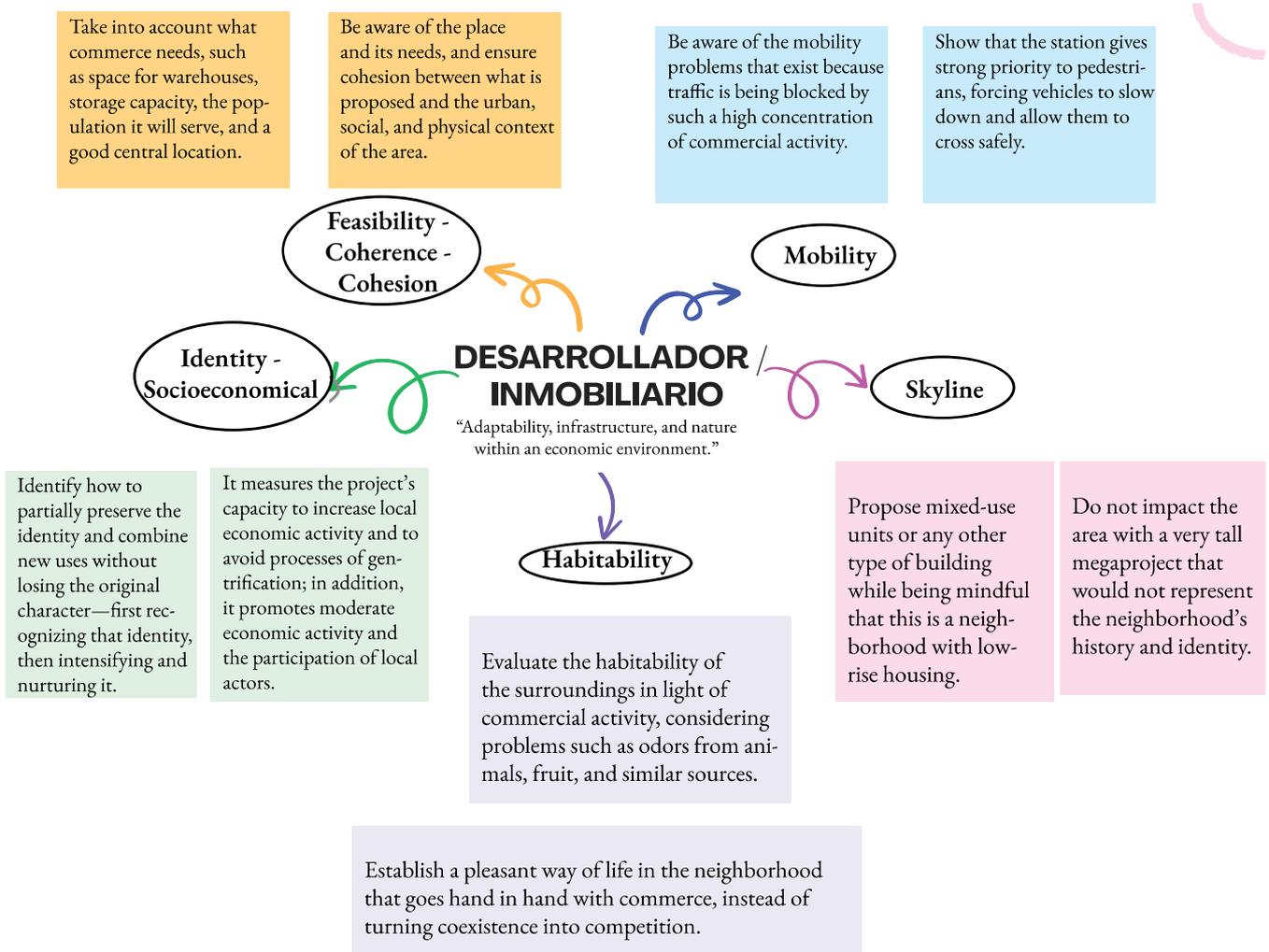
- (top) Localization of project Zoom-in (Adapted from the Alcaldía’s delivery by author)
- (left) Localization of project on top of 17 (Adapted from the Alcaldía’s delivery by author)
- (right) Planimery delivered by Alcaldía_Wed

Deliveries - SCA + UA group Developer

CV+MR+SR+LG

Decision Scheme:

Help ensure that intensive commercial activity does not become a problem that pushes residents out of the neighborhood due to an invasion of warehouse uses, which undermines the housing's commercial value by destroying its typology to turn it into storage; this displacement is caused by odors, heavy traffic, crowds, and insecurity. Commerce, however, can also be a positive contributor.



Success criterion:

The self-profitability generated by the project itself, thanks to the local market, the new mixed-use housing, and the station as a connection point that stimulates additional commercial activity.

Figure 105: Developer's Mind map explaining their logic and scheme for design in their final delivery (source: Alcaldia_wed. final delivery)

Deliveries - SCA + UA group Developer

CV+MR+SR+LG

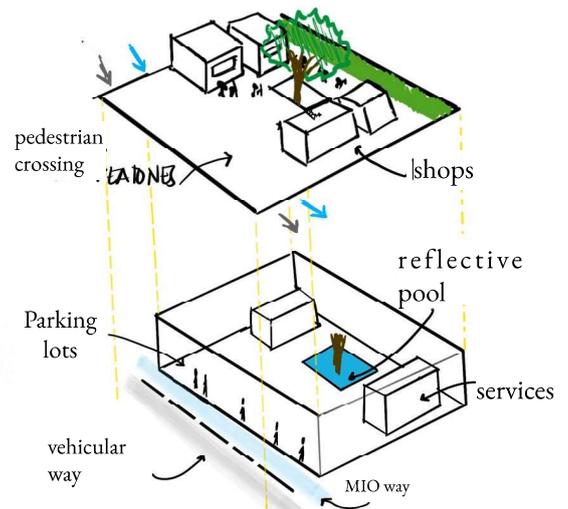
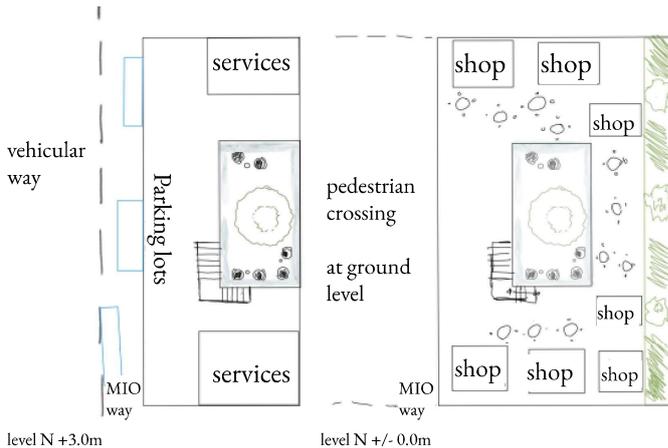
Current situation on the actual state of the area



Intervention



Plantas



Figures 106-108: (top-left) Current situation on the actual state of the area; (top-right) Intervention; (right) Planimery and volumetry scheme

We, as the real-estate actor, present a project conceived under the principle of Total Feasibility. We have rigorously met all technical, environmental, and legal conditions, guaranteeing the technical viability of the design, its coherence with the needs of local commerce, and full compliance with sanitation regulations and requirements. Likewise, we have achieved comprehensive coherence and cohesion with the surroundings.

The proposal includes the orderly relocation of warehouses, mitigating potential conflicts between housing and commerce and ensuring urban continuity and respect for the social and physical context of Santa Elena. Rather than generating displacement, it promotes integration processes. Volumetric integration is a key design

axis: building heights consistent with the context (up to five stories) are maintained, avoiding disproportions or the emergence of “tall towers,” and ensuring that new construction complements and respects the landscape harmony of Santa Elena.

The project also includes the underground organization of the mass-transit station, optimizing land use and freeing space for pedestrians. In addition, it proposes orderly vehicular circulation that improves connectivity with the MIO stop, strengthening the sector’s accessibility. Finally, the ground floor is conceived as a meeting space that energizes local commerce, where economic activity and social interaction converge, promoting urban vitality and a sense of community.

Surveys

From group B surveys indicates that the workshop effectively guided intuitive design into a more structured decision-making process, while also understanding the tensions and opportunities for the Calle 25 Green Corridor project.

Students gave the workshop very high ratings, mostly between 4 and 5 out of 5, highlighting its value in “ordering ideas” and guiding decisions through relationships and context rather than relying on intuition. They mention the “many ways” to improve decision-making, acquiring practical tools, and adopting “a new way of organization” a project. It was particularly liked the dynamic format, collaborative group interaction, and the opportunity to compare classmates’ diverse priorities and perspectives. These elements were further enriched by the integration of digital platforms and AI, especially in coding participants’ opinions into structured decision-making processes.

The Strategic Choice Approach and Urban Acupuncture were perceived as practical lenses to rethink the Green Corridor, enabling students to question “old concepts” and concentrate on realistic pathways for transformation. They reported gaining new perspectives on how to interpret cities and large infrastructures, while focusing on critical decision factors such as security, mobility, identity, and feasibility. Overall, they agreed that the workshop clarified the decision context, made trade-offs explicit, and encouraged more creative solutions for the corridor.

A central tension identified was the “conflictive coexistence between warehouses and housing,” linked to noise, insecurity, heavy logistics traf-

fic, and loss of urban landscape and residential value. Students highlighted strong uncertainty about community reactions to relocating warehouses or changing heights, intertwined with institutional pressures from the POT and expectations about mobility improvements. They also struggled with the gap between ideal visions—such as an underground station and fully liberated public space—and the constraints of budget, technical feasibility, and political negotiation.

In the short term, students emphasized low-cost, high-impact “urban acupuncture” measures such as regulating loading schedules, cleaning canal edges, enhancing lighting and signage, and addressing micro-conflict points at dark corners and crossings. For the long term, they envisioned restructuring and centralizing warehouses, developing a “housing + platform” model with active ground-floor commerce and secure housing above, and strengthening the canal as a linear park and green corridor connected to major roads and facilities. To bridge these scales, small-scale pilots—like safe path segments, shared street experiments, or temporary markets—were proposed as prototypes to test mobility, public space use, and community acceptance before committing to larger investments.

Students valued the digital use of Miro and their appreciation of the use of AI but noted connection issues and interruptions in the platforms. Many asked for longer sessions to better organize ideas. A key takeaway was that conflict and uncertainty are not obstacles but conditions to be managed through negotiation, prototyping, and criteria-based decisions—making the workshop a GPS for navigating the complexities of Calle 25.

5_4. GENERAL COMPARISON

a. Workshops

The extent to which the method advanced was shaped by context and roles. At **PUJ**, the small quasi-experimental pilot with self-defined roles functioned more like a laboratory, testing the protocol and observing where links between SCA and UA emerged spontaneously. **USB Group A -Monday (Non UA)** offered a standard SCA baseline with predefined institutional roles and a strong connection to final studio projects, though the process was hindered by time limitations and platform difficulties. **USB Group B_wed (+UA)** repeated the USB structure but introduced explicit UA induction, transforming the same SCA framework into more tactical, phased, and UA-centered outcomes.

Across all workshops, Shaping and Designing were achieved, while Comparing and Choosing were only partially completed. Each produced decision graphs, option sets, and at least schematic decision schemes. Only PUJ approached in totality Comparing mode and began to understand the concept of uncertainty applied into the workshop. the others had a superficial introduction to Comparing and Choosing.

The introduction of Artificial Intelligence (AI) and Urban Acupuncture (UA) played complementary but uneven roles. AI compressed months of research into manageable ranges and qualitative guidance—ChatGPT at PUJ and NotebookLM with local sources at USB—making comparison possible within class time but relying heavily on facilitator mediation. UA

appeared naturally at PUJ, implicitly in Group A's designs, and explicitly on Group B's as a tactical response to uncertainty (apparent in their responses to the survey), where it organized both short-term pilots and long-term strategies.

Metaphorically, the overall application resembled a clinical trial:

- **PUJ as the laboratory stage:** exposing where the protocol was too open and how SCA and UA tended to interact. It was not a full quasi-experiment, but rather an exploratory setting—like lab animals used to refine a drug before broader testing.
- **USB Group A as the placebo/control group:** offering a robust baseline for SCA in design education, with clear schemes and AI-supported comparison. Yet, as in clinical trials with many patients on placebo, the actual effect of the “drug” was not fully demonstrated, leaving Choosing and UA–uncertainty links incomplete.
- **USB Group B as the drug testers:** positioned to show how SCA+UA could support adaptive planning. However, like participants receiving the final drug in a trial, results remained ambiguous—uncertain whether the effects were genuine or merely perceived.

In the end, the entire process felt more like a rehearsal than a definitive experiment, with me as the mouse caught in the spinning wheel.

Table 16:
General comparison between workshops

Dimention	PUJ PILOT (lab. stage)	USB - SCA_non UA (baseline)	USB - SCA + UA (tester)
Institutional context	Pontificia Universidad Javeriana Cali, City, Region and Territory	Universidad San Buenaventura Cali, Urbanism I	Universidad San Buenaventura Cali, Urbanism I
Group	9 students enrolled, 5 active in SCA sessions	Group A group, 9 architecture students	Group B, 10 architecture students
	7th-8th semester, urbanism emphasis	5th semester	5th semester
Planned structure (sessions & duration)	4 sessions (~7 hours total): 1) SCA intro; 2.1) Shaping (via ZOOM) 2.2) Shaping & Designing; 3) Comparing; intro to Choosing and uncertainties.	3 sessions (~6 hours total): 1) SCA intro 2) Shaping & options, 3) Designing & Comparing, linked to studio assignment.	3 sessions (~6 hours total): 1) SCA intro 2) Shaping & options, 3) Designing & Comparing, linked to studio assignment.
Role-play	Roles self-defined: Sector Resident, Planning, Merchant, Investor , with high freedom to improvise interests and conflicts.	Roles predefined as institutional actors: City Hall, Developer, Community Action Board (JAC) ; 3–3–3 students per role.	Roles predefined as institutional actors: City Hall, Developer, Community Action Board (JAC) ; 4–4–2 students per role.
General research goals	Refine the SCA protocol (timing, roles, exercises) before formal USB quasi-experiment; observe where UA emerges if only mentioned, and test full mini-cycle including Choosing.	Standard SCA control: apply four modes to Green Corridor without explicit UA; generate clear decision graphs, options, comparison areas, and at least draft Commitment Packages to compare later with SCA+UA.	Same case and SCA structure as Group A, but with explicit UA induction to test how UA changes option generation, criteria, uncertainty handling, and Choosing; aim to demonstrate operational SCA–UA integration.
Area	Green Corridor segment between Carreras 39–42		
In-workshop case study focus	Proposal of enhacement of the sector, application of SCA as a structure for the other project: Afro Caucanian farms	Concern about the zoning and comercial context of the location (public facilities and shopping malls)	Concern about the zoning, location of station and logistical necessity of Santa elena market (how to divide the housing from the warehouses)
Shaping – Decision Areas & graph	Planned: teach decision areas and links, produce decision graphs and focus problem.	Planned: clear, role-specific decision areas and one shared decision graph for Calle 25. Compare the different decision and options.	

Dimension	PUJ PILOT (lab. stage)	USB - SCA_non UA (baseline)	USB - SCA + UA (tester)
– Achieved	Many decision areas and two decision graphs; focus problem identified, but labels remained general and sometimes duplicated scales (macro vs micro) without clear hierarchy.	Rich lists and a focus problem centred on canal use, public space, and environment ; graph constructed but initial Miro issues and time pressure led to some simplifications.	decision areas relabelled with “surnames” and reorganised by categories (location, mobility, socio-economic, environmental, regulatory), produced more legible graphs and clearer focus clusters, thought limited.
Designing – Options & schemes	Mutually exclusive options and at least some decision schemes linked to comparison areas.	Complete option sets per focus area; use option bars/graphs to build schemes	Same as Group A but with UA lens.
– Achieved	Many options but often too general and not strictly mutually exclusive , making schemes highly compatible or undecided; still, options spanned from zoning/buildability to ground-floor commerce and public-space interventions.	Very creative, extreme options (paving canal, full commercialization, strict green corridor, etc.), largely mutually exclusive; option compatibility explored via matrices and “chocolate on pasta” metaphor, generating a limited set of clear schemes per role.	Options explicitly crafted to be extremely opposite. with ideas of lighting, safe crossings, reorganising loading zones, targeted densification, micro-nodes); homework allowed sharper option lists; incompatible combinations systematically filtered, leaving contrasting schemes with different approaches.
Comparing – Criteria / Comparison Areas	link schemes to comparison areas like insecurity, habitability, connectivity; use AI to get 1–5 ranges.	Define role-based KPIs, then compare 2–3 schemes per role.	highlight UA-related criteria (timing, vitality, aesthetics, adaptability).
– Achieved	groups defined comparison areas such as perception of insecurity, public–private interaction, heritage, aesthetics, habitability, connectivity; criteria set but trade-offs discussed only briefly due to time.	comparison areas included mobility, socio-economic impact, public facilities, public-space quality, heritage/identity, environment, governance; AI-supported 1–5 ranges used to judge which schemes “win” per criterion, especially for each role’s chosen scenario.	comparison areas placed more weight on vitality, identity, aesthetics, habitability, and connectivity, consistent with UA literature; students compared schemes not only on structure and profitability but on experiential and catalytic effects.
Choosing	Explicit action schemes and Commitment Packages per role to demonstrate full SCA (non & +UA) Choosing.		
– Achieved	Choosing remained mostly conceptual; AI text on uncertainties was generated but not integrated into a structured Commitment Package; no formal Action Schemes with indices.	Short/long-term moves and exploratory actions had to be inferred later from final studio submissions and survey answers; Choosing appears more in post-processing than in live SCA diagrams.	Closest to an elaborated Progress/Commitment Package: short-term UA-style pilots (lighting, micro-crossings, cleaning canal, regulating logistics) combined with long-term structural interventions (mixed housing, reconfigured warehouses, canal as green corridor), all discussed in relation to uncertainty typology; still presented mainly qualitatively rather than with full numeric SCA indices. Because it was gathered through audio during the comparison and definition of areas.

Dimension	PUJ PILOT (lab. stage)	USB - SCA_non UA (baseline)	USB - SCA + UA (tester)
AI configuration and role	ChatGPT used directly by student groups to generate approximate 1–5 ranges for each scheme vs comparison areas; provided quick, generic numerical scaffolding to enable Relative Evaluation.	NotebookLM used as curated AI assistant with ~32 local sources (POT, ED RU, interviews); professor centralised queries and produced tables with ranges, guidelines, and design hints per role scheme; AI grounded comparison in local data but reduced student direct interaction.	Same NotebookLM setup as Group A; AI outputs again mediated by professor, but prompts and interpretations more explicitly oriented to UA-like criteria and to linking schemes with uncertainty matrices; AI treated as “research layer” supporting tactical decisions.
Uncertainty typology (UV, UE, UR, UD)	Typology explained and applied to Green Corridor; examples included heritage vs densification (UV), lack of data on security/habitability (UE), interdependence of institutional and community decisions (UR), and shocks like protests and pandemics (UD); AI used to estimate uncertainty levels per scheme, but matrices remained general.	UV/UE/UR/UD introduced, but only partly worked through in workshop time; much of the analysis on how students recognised and managed uncertainties was reconstructed from a second survey and from reading final designs/interviews, rather than from complete SCA uncertainty diagrams.	
UA’s role and visibility	UA mentioned and framed as small-scale, tactical response within Explorative Options and Commitment Package; students spontaneously generated UA-like design elements (ground-floor commerce, transparency, active public space) and recognised UA as “a way to start with something that has impact” when big solutions are blocked.	Officially no UA induction; nevertheless, many proposals reflected UA logic (green roofs, canal as green corridor, small ecological paths, ground-floor commerce, micro public spaces). UA remained an analytic layer added later by the researcher, not a category used by students.	UA explicitly taught (triple value rule quick–local–economic, systemic impact, participation, activation of flows); options, comparison areas, exploratory options, and Commitment Package were explicitly discussed using UA principles, positioning UA as tactical response to UE/UD and as “victories now” that sustain the strategic pathway.
Main accomplishments vs initial goals	Successfully identified protocol weaknesses (too-open instructions, virtual constraints), confirmed that SCA can host UA-inspired design thinking, and validated the uncertainty typology for the Cali context; provided conceptual learning and design insights, but not a complete experimental cycle.	Demonstrated that SCA structures students’ thinking about a complex corridor, generated strong role-based schemes, and showed that AI can operationalise Comparing with local data; produced valuable baseline material and final designs for external validation.	Showed that explicit UA induction changes option content, criteria, and the nature of Choosing, leading to more tactical, phased strategies; provided the clearest empirical support for “Strategic Acupuncture” (SCA+UA) as an adaptive planning approach under uncertainty.
Key limitations and biases	Small, partially virtual group; options too general and non-exclusive; Comparing and Choosing shallow; AI outputs on uncertainty left unused; does not match full three-session protocol, so functions more as design lab than as experimental arm.	Technical issues (Miro failures, switching tools), limited time, and need to also deliver course content compressed Shaping/ Designing and weakened Comparing/Choosing depth; UA–uncertainty links remain mostly implicit and reconstructed ex post; internal comparability with Group B affected by these constraints.	Still incomplete relative to textbook SCA (no fully quantified Action Schemes), with some role-play “contamination” (students argue from personal views) and AI interaction mediated by professor; nevertheless, stands as the most faithful implementation of the designed quasi-experiment.

5_4. Overall Comparison

b. Deliveries

The JAVERIANA document serves as the technical foundation addressing environmental design parameters, while stakeholder (Each role in USB workshops) proposals evolved from Group A's more polarized positions (extreme commercialization vs. pure ecology) to Group B's more nuanced, integrated approaches balancing commerce, housing, sustainability, and feasibility.

Stakeholder	USB_Non UA focus	USB+UA focus	diferences
Desarrollador Inmobiliario (Developer)	Maximum commercial exploitation, canal paving, privatization, luxury housing	Total feasibility approach, organized warehouse relocation, underground transit, mixed housing, commerce integration	Shifted from aggressive commercialization to balanced technical feasibility with social consciousness
Alcaldia (City Hall)	Green corridor preservation, public space emphasis, equipment integration	Centralized commerce, minimal intervention, budget consciousness, residential predominance	Moved from idealistic green focus to pragmatic budget-constrained mixed-use approach
JAC	Ecological corridors, pedestrian paths, green roofs, sustainable mobility	Underground logistics, high-rise housing, commercial integration, automated systems (with the goal of order and safety)	Evolved from environmental idealism to complex integrated urban system proposal
Javeriana	Comprehensive technical document (not date-specific)		Academic framework establishing design parameters and urban problem diagnosis
Graphical delivery	The emphasis was placed on broader urban planning through zoning, rather than on specific, punctual architectural interventions.	The delivery combined zoning of the area with a schematic volumetric proposal for the building, except for the city hall, who chose to deliver a highly detailed plan of the public ground surrounding the train station.	The scope of delivery revealed notable contrasts: one oriented toward a broader urban scale, the other toward a more localized, zonal perspective.

5_4. b. Deliveries

Javeriana

The JAVERIANA workshop delivery consists of a comprehensive technical support document for the Green Corridor project. This document presents a formal academic approach focusing on environmental design parameters for the corridor between Carreras 29 and 39. The methodology includes documentary diagnosis, field research with stakeholder interviews, and spatial modeling using Geographic Information Systems.

The proposal identifies 15 critical points of urban problems including improper waste disposal, insecurity, public space invasion, lack of pedestrian priority, absence of active commerce, low density, and lack of cycling infrastructure.

The document recommends strengthening green corridors as urban articulating structures, promoting controlled densification with mixed uses, establishing clear regulations against public space invasions, integrating cycling routes into the metropolitan network, and ensuring permanent maintenance plans.

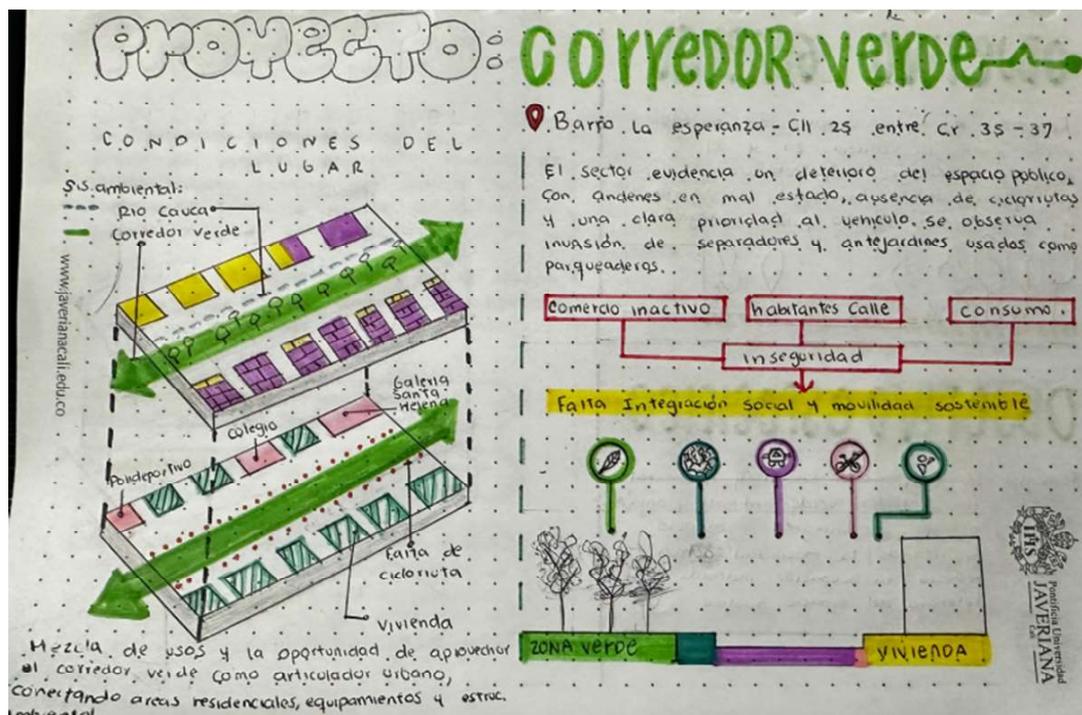


Figure 48: Scheme in SA group report as final delivery. Source: S. & A. (2025). Report on the green corridor

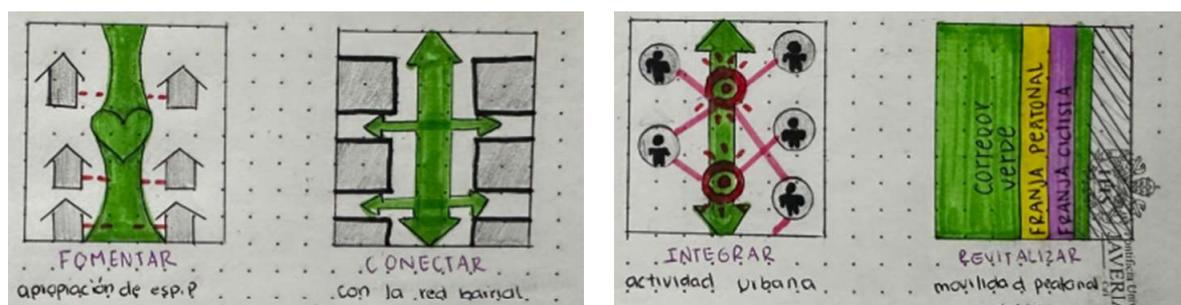


Figure 109: Goals for design in the SA group report as final delivery. Source: S. & A. (2025). Report on the green corridor

5_4. b. Deliveries

Alcaldía (City Hall) - Group A_Mon

Proposes using the canal as a **green corridor while maintaining the urban axis for station locations.**

Key options include using the canal as public and green space, creating empty spaces complemented by facilities that complement urban itineraries within the sector and in connection with the city, maintaining and consolidating commerce in the sector, and implementing building typologies in housing that contribute to the public system.

The central argument aims to use the rainwater canal and the upcoming commuter train as a green corridor equipped with public meeting spaces that allow safe and adequate articulation between stations located on it. The success criterion focuses on incentivizing public space use by taking advantage of existing green areas and providing them with conditions as public space.

Desarrollador Inmobiliario (Real Estate Developer) - Group A_Mon

Presents a commercial-focused scheme with maximum land exploitation. The proposal centers on **integrating the station within a large shopping center that concentrates commerce, mobility, and services.**

Key decisions include paving the canal to convert it into a vehicular access road with underground stormwater channeling, privatizing public space management with hard surfaces replacing green zones, substituting current

housing with luxury residential complexes of high density, and ensuring financial profitability through ground-floor commerce and paid parking.

The success criterion emphasizes financial profitability and total land use maximization, positioning Santa Elena as a strategic urban pole of high value.

JAC (Community Action Board) - Group A_Mon

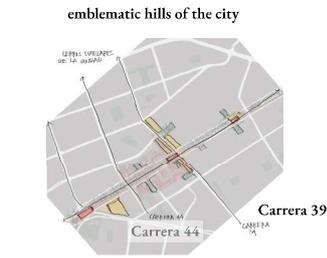
Presents the corridor as **public space and sustainable mobility.** The chosen scheme proposes using the canal as a green corridor, implementing pedestrian paths in public spaces, and incorporating green roofs and ecological paths for environmental sustainability.

The central argument seeks to revitalize the street by taking advantage of the canal as a green corridor, integrating public space with pedestrian paths that promote sustainable mobility and citizen encounters. Through green

roofs and ecological paths, the proposal promotes environmental sustainability and the connection between nature, infrastructure, and community.

The success criterion highlights financial viability and sector security, arguing that proposing various commerce and green corridors makes the place more frequented, providing security and financial viability.

**USB_non UA
Group A (Monday)**



Legend

- Facilities or commercial uses
- Parks, green areas / public space
- Built space
- Main streets
- Study area

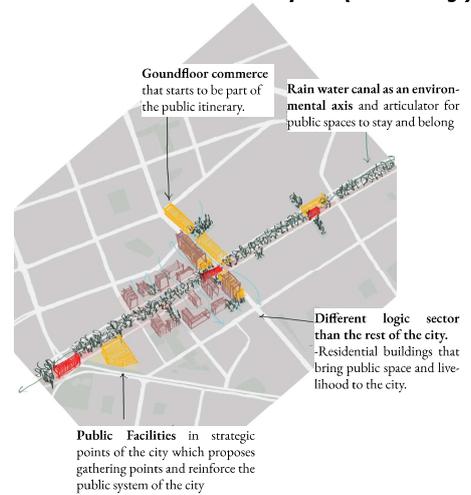
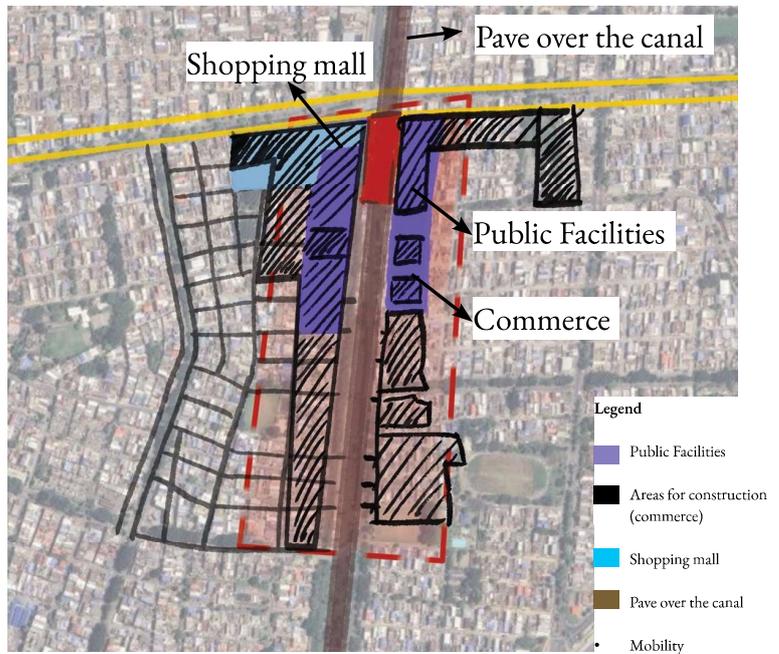


Figure 72-74: Schemes and diagrams from Alcaldia_A



Figures 76-77: Zoning form Developers_Mon



Figure 75:
Zoning form JAC_A

- Green corridors
- Canal
- Main streets (Calle 25)
- Ecological paths that connect both sides of Calles 25 and 26
- Shops with green roofs

5_4. b. Deliveries

Desarrollador Inmobiliario (Real Estate Developer) - Group B (Wednesday)

The delivery presents a more balanced approach under the principle of "Total Feasibility". The proposal rigorously complies with all technical, environmental, and legal conditions, ensuring design technical viability, coherence with local commerce needs, and compliance with required sanitation regulations and requirements.

Key considerations include habitability evaluation due to commerce-related issues like animal and fruit odors, establishing harmonious neighborhood living that goes hand-in-hand with commerce, identifying how to partially conserve identity while mixing new uses without

losing original character, and measuring the project's capacity to increase local economic activity and avoid gentrification processes.

The scheme includes organized warehouse relocation, underground organization of the mass transit station, ordered vehicular circulation, and the ground floor conceived as a meeting space and revitalization of local commerce. The success criterion focuses on self-profitability generated by the project through the local market, new mixed housing, and the station as a connection point generating more commerce.

Alcaldía (City Hall) - Group B (Wednesday)

Proposes centralized commerce to formalize the informal commerce of the zone and rehabilitate residential life where both environments can fully coexist. The proposal generates centralized commerce equipment linked to the railway and the green corridor.

Key options include centralized commerce to generate order and mitigate informal commerce that creates environmental and waste problems, making the sector predominantly residential to have greater flow of people at different hours providing more security and sense of belonging, and constructing the commuter train station, pedestrian and vehicular crossing on the same level to

lower project costs using a proven functional model in the city. The central argument states that within a 20-year period in the Valle del Cauca territory, travel times can be significantly reduced, offering high levels of comfort and optimization of consumption and impact on natural resources.

Success criteria emphasize efficiency due to strategic location and connection with the city's road network, lower initial investment allowing faster start and completion affecting the sector and city less, and economic development seeking to revitalize residential life providing security while organized commerce generates more citizen confidence.

JAC (Community Action Board) - Group B (Wednesday)

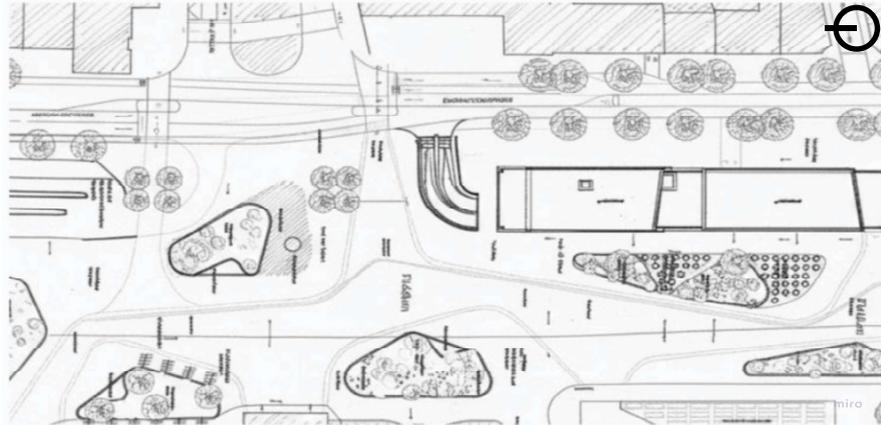
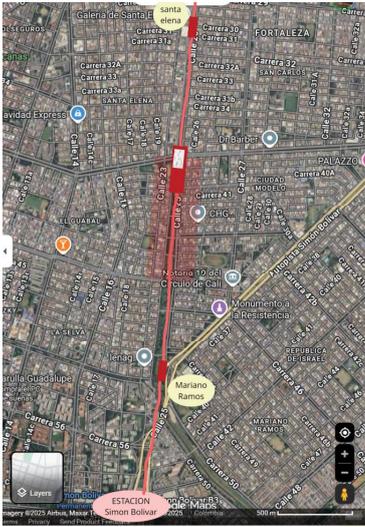
Proposes residential apartments with commercial floors 1 and 2, plus underground warehousing and logistics with a subway train proposal. Key options include linking public facilities, promoting high-rise housing, and underground product storage.

The central argument bases the proposal on a three-section building: the public floor and second floor contain commercial establishments with public circulation plazas, following floors transform into spacious residential apartments, and finally proposes restoring railway tracks

underground for more efficient transport and underground warehouses, connecting these two elements to automate processes.

The success criterion is integrated urban efficiency and profitability, maximizing land use by combining commerce, housing, and underground transport, generating a functional and profitable urban system. The connection between underground warehouses and railway tracks automates logistical processes, reduces operational costs, and improves mobility, while commercial and residential spaces increase density and economic value of the sector without affecting public surface dynamics.

**USB + UA
Group B (Wednesday)**

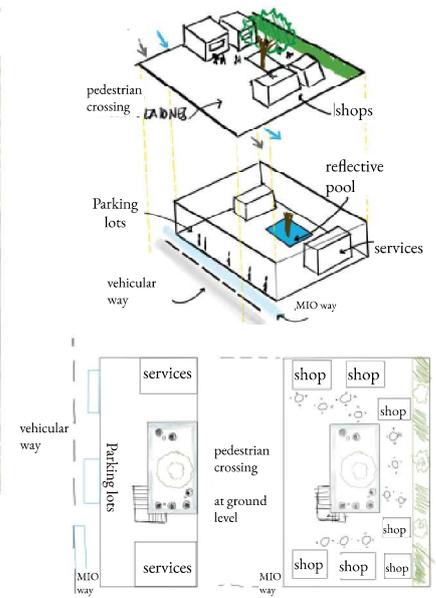


Figures 102-104:
(left) Localization of project on top of 17 (Adapted from the Alcaldia's delivery)
(right) Planimery delivered by Alcaldia_B

Current situation on the actual state of the area

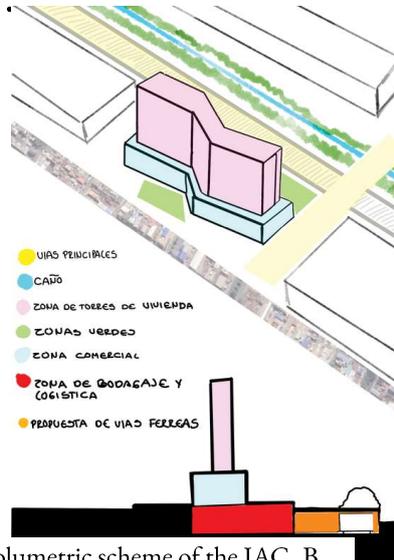


Intervention



Figures 106-108: (left) Current situation on the actual state of the area; (center) Intervention; (right) Planimery and volumetry scheme

- Legend**
- Principal Avenue
 - Parks
 - Jarillon (canal)
 - Mixed use Habitability
 - Warehouses relocation
 - Busy roads



Legend:

- Main routes
- Canal.
- High-rise housing zone.
- Green areas.
- Commercial area.
- Storage and logistics area.
- Proposed railway lines.

Figures 100-101: Localization of project and Volumetric scheme of the JAC_B.

5_4. Overall Comparison

c. Survey 01

The workshop received very positive evaluations from most participants, who highlighted its usefulness in structuring projects, improving decision-making, and fostering a more systemic understanding of urban problems.

With 24 responses out of 38 participants, the feedback can be considered a strong and encouraging result.

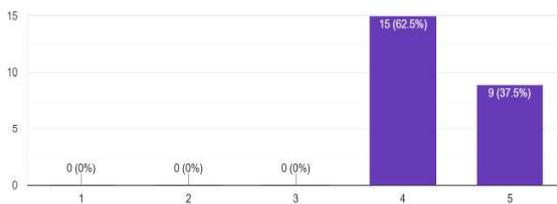


Figure 110: Votation on the perceived usefulness of yje workshop (Survey 1 answers)

Perceived Usefulness

100% of respondents rated the usefulness of the workshop in the high range (4 and 5 on the scale), with no low ratings.

Participants highlight that the workshop **equipped them with new strategies, methodologies, and tools for effective decision-making, enabling them to organize ideas, evaluate multiple aspects, and prioritize according to project objectives.** It fostered a systemic approach to problem-solving, helping students analyze urban challenges, delimit issues, and consider the broader context and stakeholders involved.

Beyond individual projects, the workshop encouraged a wider vision of cities and urbanism, highlighting the importance of integrating diverse factors and perspectives beyond the design stage.

Finally, it strengthened skills in knowledge acquisition and information management, supporting more structured and systematized project development (also noted by prof. Bustos).

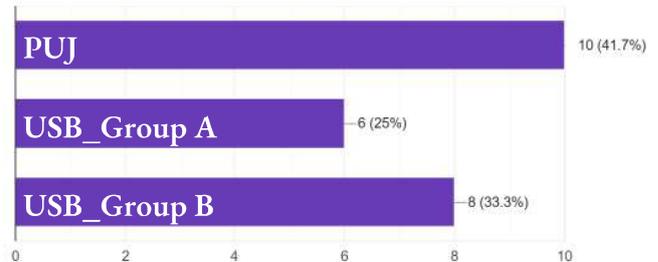


Figure 111: Participants who filled the survey and from which workshop (Survey 1 answers)

Most Valued Aspects

- The cooperative dynamic, group work, open discussion among classmates, and active participation in decision-making fostered interaction between students and teachers and allowed different opinions and priorities to be heard.
- The methodology and focus were valued for offering multiple ways to approach a problem, using categorization and different schemes to concentrate on clear, objective goals.
- The variety of methods and tools stood out as a positive aspect, particularly the possibility of using different methods for the same step and choosing the most useful one, along with the use of platforms such as Miro and AI.

The workshop was described as didactic, dynamic, and even like a “staged performance,” which helped participants engage personally with important topics. Finally, the practical application was highly valued, as a clear process

Survey 01

On the usefulness of the workshop

supported better decision-making and allowed work on real city issues, such as the green corridor.

Least Liked Aspects

The most mentioned difficulty was limited time, the schedule felt too tight to address all content calmly, some parts felt rushed, and there was a desire for more time to discuss comparison results as a group. Also, technical problems with the digital platform Miro, as excessive movement on the shared boards, and unstable or complex connectivity.

In terms of content and methodology, some participants felt that the large number of steps made the process confusing, that theoretical explanations could complicate the decision-making method, and that it was difficult to understand all the variables needed to fully implement a project.

Interaction and guidance were not always optimal, with mentions of communication problems due to virtuality, a lack of support when structuring ideas, and discomfort with the attitude of some participants. At the same time, several respondents stated that nothing bothered them or that everything was excellent, indicating that these difficulties were not perceived uniformly by the whole group.

Suggestions for Improvement

Participants proposed several improvements to strengthen future editions of the workshop. A central point was allocating more time: many comments asked for a longer workshop to better understand the procedure, complete the activities, and make participation and discussions more relaxed.

There was also a strong interest in incorporating more real and locally relevant examples, including additional urban and architectural cases beyond the green corridor, to better connect the methodology with professional practice. In terms of methodology and format, suggestions included offering the workshop in person when possible, using the physical board more (as on the last day), changing positions during activities, and finding clearer ways to explain difficult concepts and steps.

Participants also recommended deepening practice by introducing another problem to work on, planning a final session to reflect on what was learned, and adding more individual exercises to reinforce idea organization. Finally, one comment noted that the topic demands considerable prior research or thematic expertise to be fully addressed, although the workshop was still considered interesting as an exercise. (see appendix e for full answers).

5_4. c. Survey 1

Objectives Achieved by the Workshop

To what extent do you agree or disagree with the following categories that this workshop has helped you to understand or address?

Legend:

- Completely Agree
- Disagree
- Agree
- Strongly Disagree
- Neutral
- N/A

Figure 112: Present your ideas for discussion.

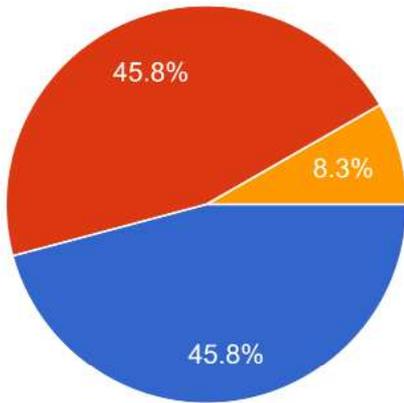


Figure 113: Acknowledge the existence of diverse perspectives regarding the transformation.

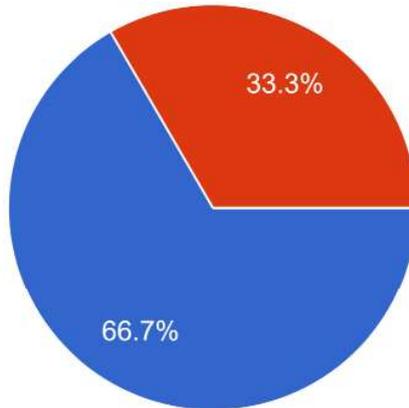


Figure 114: To generate better ideas and options for transformation.

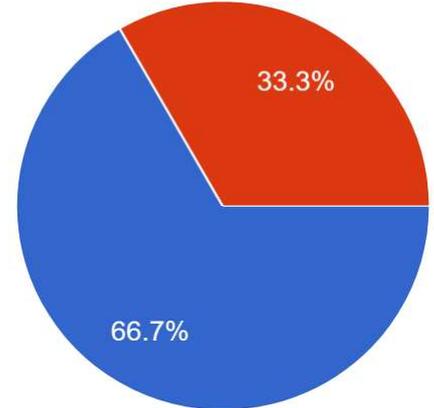


Figure 115: To think of and/or propose more creative solutions.

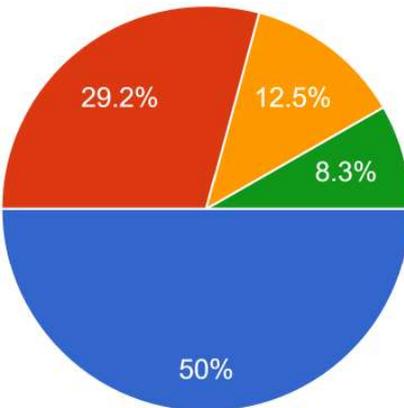


Figure 116: To learn more about the issues surrounding the context of decision-making.

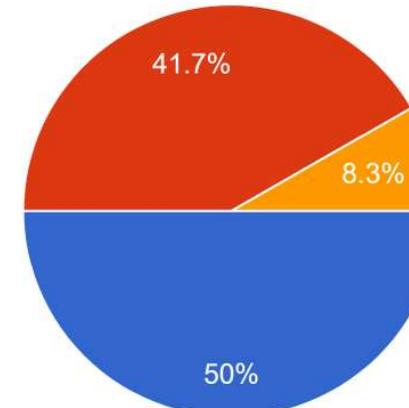


Figure 117: To learn more about the issues surrounding the context of decision-making.

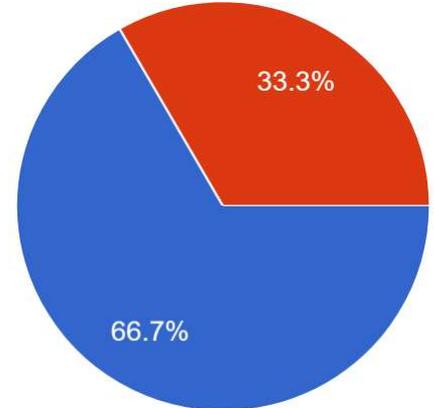


Figure 118: To challenge old concepts or ideas regarding the transformation of the Green Corridor.

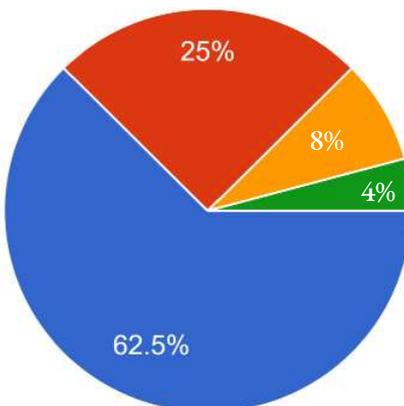


Figure 119: To focus on the main aspects of decision-making.

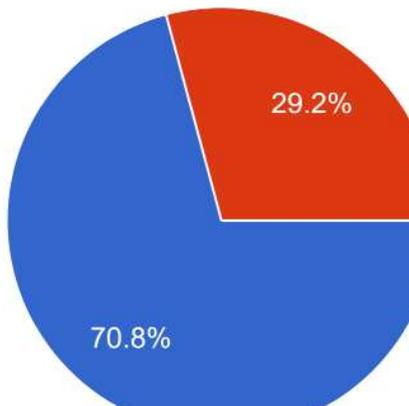
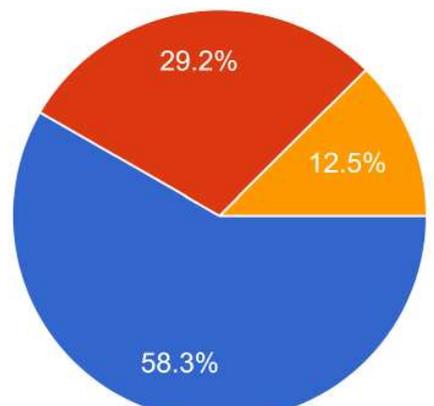


Figure 120: To think more clearly about realistic options for the transformation of the Green Corridor.



Negative Aspects or Difficulties

To what extent do you agree or disagree with the following statements?

Legend:

- Completely Agree
- Agree
- Neutral
- Disagree
- Strongly Disagree
- N/A

Figure 121: The workshop focused on the main aspects of decision-making

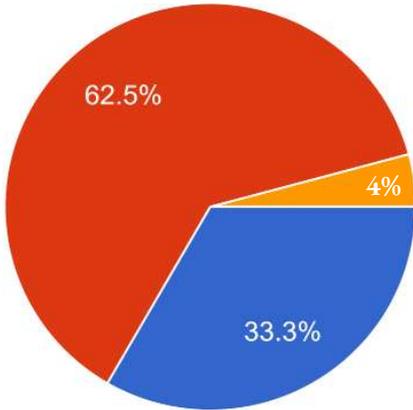


Figure 122: The objectives of the workshop were clear.

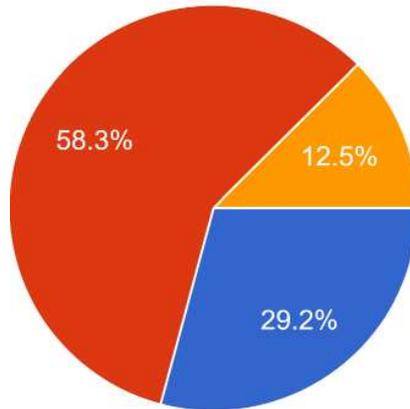


Figure 123: The discussions during the workshop were clear, open, and free.

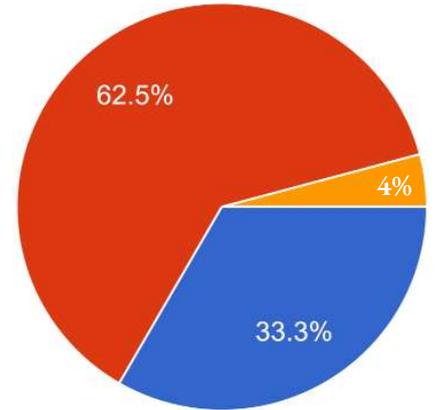


Figure 124: The issues became more complex than necessary.

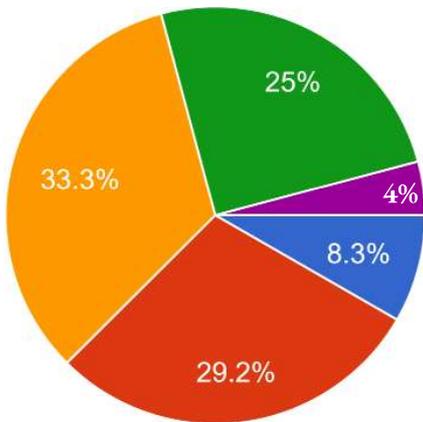


Figure 125: My opinions were not heard.

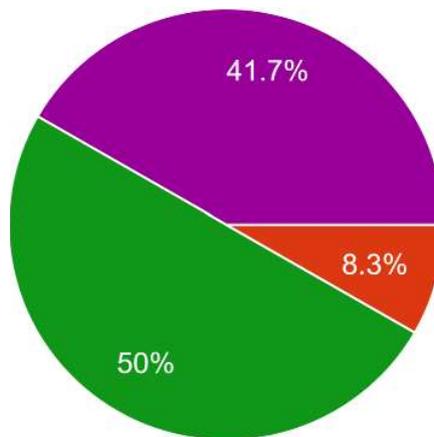


Figure 126: The participants worked very well during the workshop.

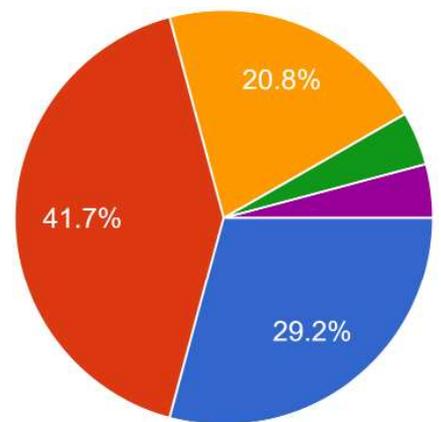


Figure 127: I didn't have enough information to be part of the workshop.”

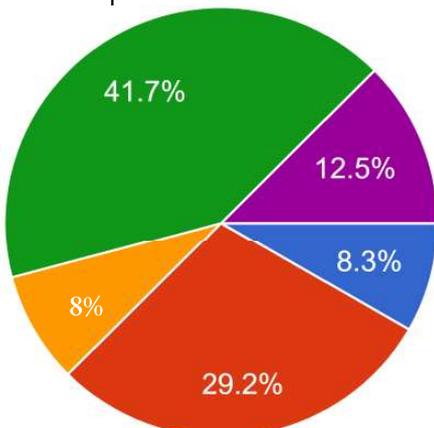


Figure 128: I felt pressure to agree with the group.

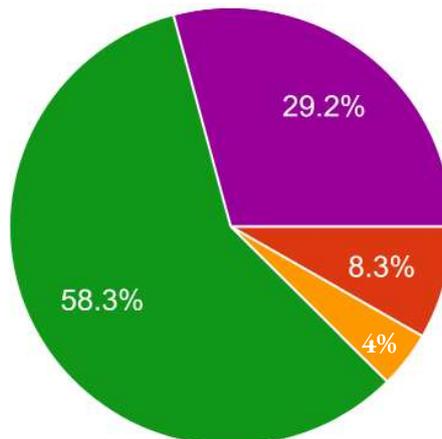
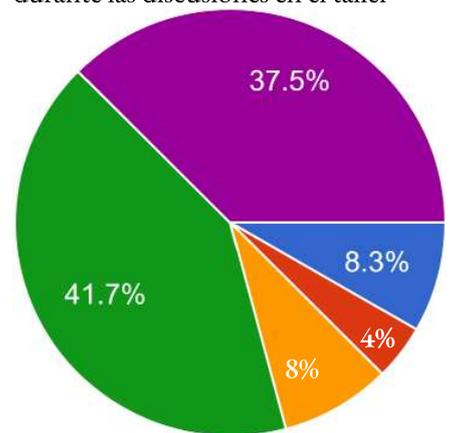


Figure 129: Problemáticas importantes fueron ignoradas/rechazadas durante las discusiones en el taller



5_4. Overall Comparison

c. Survey 02

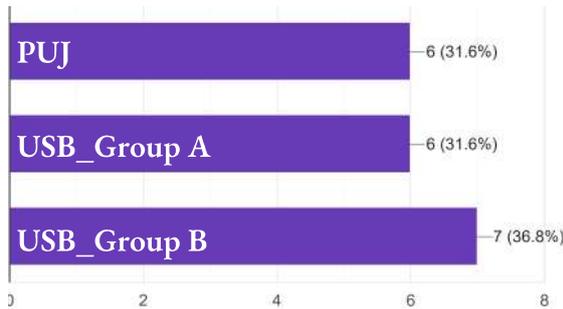


Figure 130: Participants who filled the survey and from which workshop (Survey 2 answers)

The document compiles answers from 19 out of 38 students who participated in the “Strategic Choice Approach (SCA) Workshop” in the universities Javeriana and San Buenaventura Cali.

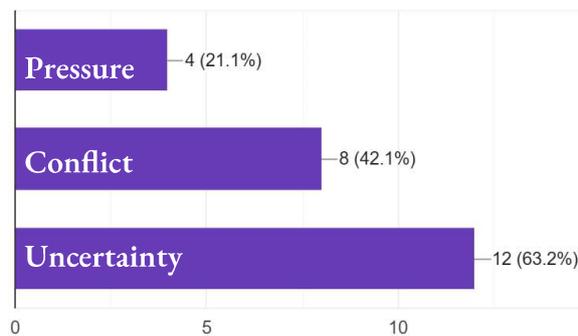


Figure 131: What factors do you perceive as most influential in this project’s decision-making? (Survey 2 answers)

The most influential perceived factors are from lower to higher (figure 131): multiple pressures (zoning plan, community, economic); conflict between actors (warehouse owners, residents, small commerce, developer, government), and Uncertainty which is linked to not knowing the real impacts of relocating warehouses, changing building heights or building an underground station, especially on safety, commerce and mobility.

In the survey, participants were asked to recall the selection of the main problems and to re-

flect from a more distant, time-based perspective on whether their focus might have shifted. These problems included the conflicting mix of warehouses and housing, congestion on market days, invasion of public space, night-time insecurity, and the lack of parks and connectivity.

From these issues, students defined decision areas such as mobility, public space, use of the canal, location of the shopping center, building heights, permanence or relocation of local commerce, and land-use compatibility. *Although these areas were initially very general, the graphic submissions reflected this scope. On Group A’s, concerns and options remained broad, resulting mainly in zoning proposals for the area. By contrast, Group B’s work, despite focusing on only two decision areas, demonstrated more grounded and specific criteria. This was evident in their submissions, which displayed greater complexity and detail.*

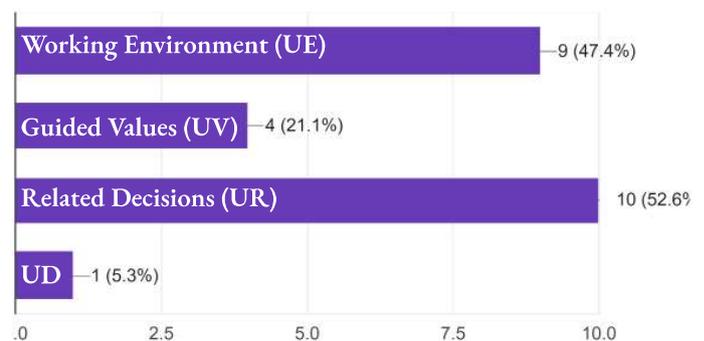


Figure 132: Looking at the entire process, in which parts do you identify the greatest uncertainties? (Survey 2 answers)

Even so, the workshop’s structure and sequence strongly shaped how participants perceived uncertainty in the TCV project, especially around decision-making and the working environment. Decision-making was influenced by the broader political context, where progress on the real project awaited national budget approval. The working environment added further uncertain-

ty, since the exercise took place in an experimental format outside the usual studio and was not a top academic priority. Faculty themselves noted that students would likely devote little time to it, as their attention was largely focused elsewhere (see figure 132 for percentage).

Participants repeatedly compared options using criteria such as safety, habitability, mobility, neighborhood identity, social impact, technical feasibility, cost, and profitability. These criteria, often applied implicitly, led them to reject certain schemes as incompatible already in design mode: surface warehouses versus active ground-floor public space, tall towers versus neighborhood identity, green corridor versus traffic lanes, privatized versus accessible public space, and social housing versus luxury housing.

Over time, participants' **short-term** priorities focused on tactical actions: organizing loading/unloading schedules, cleaning the area, improving lighting and signage, conducting surveys, and activating public space through fairs and sports activities. **In contrast, medium- and long-term proposals** involved more complex interventions, such as relocating warehouses, building mid- to high-rise housing with ground-floor commerce, creating an underground logistics platform, establishing a mixed-use shopping and equipment hub, and designing a green corridor or linear park connected to the transit station—initiatives that demand more coordination, decisions, and funding.

Participants linked **Urban Acupuncture with micro-interventions like better lighting, cleaning, small parks, sports courts, pedestrian paths, and cultural events**, conceived as reversible pilots that test solutions, reduce un-

certainty, build trust, and strengthen community ownership before scaling up what works. These small-scale actions operate as tactical tools for moving forward under pressure, with limited information or disagreement, enabling rapid learning and adjustment before committing to large investments. By prototyping uses and configurations—lighting schemes, crossings, sports areas, commercial activities—they help assess viability and performance, lowering political, social, and financial risks while easing resistance to change. The steady presence of people in these treated spaces enhances natural surveillance and perceived safety, with targeted, warm lighting playing a key role in improving security without large-scale transformations.

At the same time, the visible and immediate nature of these interventions produces concrete evidence of change, generates “micro-victories” that demonstrate the possibility of transformation, and reinforces community appropriation and engagement with the process. As low-cost prototypes, they validate mobility patterns, public space usage, commercial dynamics, and design approaches before larger implementations, while visible short-term improvements such as better lighting and cleaning motivate participation, feedback, and shared ownership.

Their reversible and adaptable character allows communities to collectively evaluate benefits, adjust what does not work without significant resource loss, and build knowledge that informs safer, more context-sensitive decisions. Examples of such pilots include temporary kiosks, organized loading and unloading schedules, storefront experiments, community markets, urban gardens, modular playgrounds, tactical furniture, pergolas, and trials of “shared streets” or pilot pathways.

5_4. Overall Comparison

d. Prof. Marin Review

22nd of October, 2025

Prof. Marin sees a lot of value in the workshops because they allowed students to get closer to real decision-making contexts, reflect on urban problems they usually do not question during their studies, and acquire tools that they might not fully appreciate now but will likely use later in professional practice. She highlights that the workshop helps students learn to ask good questions, and that once a question is well formulated “90% is already solved”, which helps to avoid forced projects that start only from an idea without prior reflection. For her, it is very valuable that, beyond drawing and form, students face the decision-making process and learn to understand the underlying urban issues.

Explaining that the Urbanism I course was structured from the most complex to the most concrete: starting with history, then the “grammar” of urban language, the master plan (POT), intermediate planning instruments, and finally the urban project, which was originally going to be a hypothetical project. The workshops, however, fit perfectly as a trigger project in the urban project phase, because it introduces another perspective: how to confront decision-making in real urban problems before arriving at the final graphic representation. With this, students can connect conceptual content with a more realistic scenario and then move on to drawing with a better-founded process.

Regarding assessment, there was an initial thought of an oral exam to gather all the concepts covered in the course, with the introduction of SCA concepts, the final delivery would have the overall process, a graphic representation and a video explanation, so the students have to show what they learned and reflected in their project. She emphasizes that she expects sincerity rather than “correct” answers, and that even if students do not prompt the AI properly, this will reveal how much they have really understood and how the workshop contributed to their learning.

She also comments on methodology and technology, noting that students tend to want to draw everything perfectly from the beginning and that digital tools can sometimes limit them or consume too much time. For this reason, she values having alternatives such as working by hand at certain stages, which can make the process more fluid and less constrained by technology. She points out that they have lost time due to power or internet issues and that it would be ideal to have a technological tool that leaves everything processed directly, without needing to take photos and upload materials afterward.

6. THE VALIDATION

This validation phase constitutes a critical methodological component within qualitative research examining urban planning processes for Cali's Green Corridor project (between carrera 39-42). The investigation focuses on decision-making methodologies under conditions of uncertainty in complex urban transformation projects, drawing upon students deliverables from **Universidad San Buenaventura Cali (USB)** Groups A (monday) and B (wednesday) and **Pontificia Universidad Javeriana Cali (PUJ)**, who developed spatial proposals through role-playing exercises representing differentiated stakeholder perspectives: municipal government (Alcaldía), real estate developers (Desarrollador Inmobiliario), and neighborhood associations (JAC).

To establish the "**credibility, dependability, and confirmability**" (Lami & Tavella, 2019; and Franco, 2013) of findings by systematically confronting student workshop deliverables against actual institutional, technical, and financial constraints as articulated by expert stakeholders directly involved in Green Corridor implementation. This responds to two interconnected research questions:

To what extent do student proposals—developed through Strategic Choice Approach (SCA) decision-making methodology addressing multiple uncertainty types—align with real-world constraints and strategic objectives of regional transport authorities (ART) and urban renewal institutions?

Does the combination of SCA and Urban Acupuncture framework provide a more robust response to uncertainties and objectives derived from the TCV (Tren de Cercanías del Valle) regional project context?

This phase, beyond simply verifying exercises, **constitutes instead a constructive dialogue identifying alignments and contrasts between pedagogical design thinking and professional implementation realities.** Following established precedents in Problem Structuring Methods (PSM) research, this validation employs "**multi-methodological triangulation**" to evaluate the usefulness and effectiveness of the pedagogical intervention while strengthening research validity and reliability (Midgley et al., 2013; and Lami & Tavella, 2019).

The validation employs triangulation aligned with approaches established by Lami & Tavella (2019), Franco (2013), and other leading PSM scholars (Franco, 2007; Herrera et al., 2016; Rouwette, 2011; White, 2006), integrating multiple data sources to ensure robust interpretation:

- **Students Deliverables** (18 documents).
- **Institutional Documents:**
 - PEMP Santa Elena 2024-2036, TCV regional presentation, Green Corridor Project

- **Expert Validation Interviews:**
Espacio Colectivo, ART,
SITREN+Planing department.
- **Contextual Documentation:**
Captured info during workshops.

The validation applies qualitative criteria to student proposals, moving beyond factual accuracy to assess **credibility, transferability, dependability, confirmability, and authenticity**. These standards help determine whether students understood project goals, aligned with institutional frameworks, engaged with contextual complexities, and generated insights relevant to professional practice. **The analysis also seeks to explain misalignments and what they reveal about the relationship between academic exercises and real-world implementation.**

Six dimensions are examined: **infrastructure configuration, land use, and logistics** (tied to Santa Elena's market); **urban design** strategies such as lighting, pocket parks, cycling, and pedestrian connectivity; **temporal assumptions** regarding schedules, land liberation, and political cycles; and **recognition of uncertainty**, including value conflicts, decision interdependencies, disruptive events, and complex working conditions. Together, these dimensions provide a comprehensive lens for evaluating both the strengths and limitations of student contributions.

The process draws on **Lami and Tavella's quasi-experimental framework**, complemented by **Franco's cross-source validation approach**. Combining multiple methods: questionnaires administered immediately after workshops and repeated a week later, reflective documentation

through group discussions and artifacts like decision graphs, and expert stakeholder conversations with transport and municipal planners.

These insights were **triangulated with semi-structured interviews, student reflections, process notes, and video recordings** to identify convergences and discrepancies. Consequently to avoid potential biases (as the researcher's role is academic, practitioner, and facilitator), the study follows PSM practices: documenting both divergences and convergences, allowing unmediated expert voices to challenge student proposals, and recognizing innovation even when not validated by experts.

Additional safeguards include process transparency and rigorous triangulation, cross-checking expert views against institutional documents to separate personal opinions from endorsed constraints. These measures strengthen reliability and balance the researcher's multiple positionalities.

Methodologically, the study employs Pedagogical Action Research, integrating teaching and inquiry to generate knowledge about learning and planning practice. The validation phase serves as a "critical friend" moment, where external stakeholders review and challenge outcomes to ensure academic insights are tested against professional realities.

6.1. Comparison

Initial Objectives and Uncertainties from Initial Interviews

The Tren de Cercanías del Valle project articulates three interconnected strategic objective categories: **Functional and Mobility objectives**, regional connectivity, 33% travel-time reduction, intermodal integration, tram-train hybrid operations (Systra, 2019–2020; SYSTRA, 2020); **Socioeconomic and Urban Renewal objectives**, 14,000 jobs, Corredor Verde linear park, redensification around stations, heritage preservation of historic train station and Santa Elena gallery (SITREN GV S.A.S., 2024; Financiera de Desarrollo Nacional [FDN], 2023–2024); and **Environmental and Safety objectives**, 100% electric traction, 1.2–1.3 million tons of CO₂ avoided, road safety via transit alternatives to informal motorcycle transport, and updated safety targets (Systra, 2019–2020; SITREN GV S.A.S., 2025).

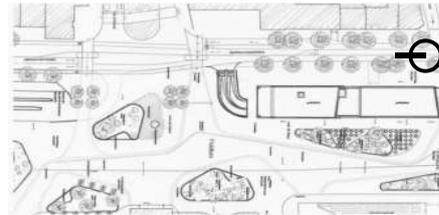
Alcaldía Proposals (Municipal Government):

Both Group's A and B iterations demonstrated strong alignment with TCV's core socioeconomic and safety objectives.



Figures 74: Alcaldía_A

Group A (monday) proposal emphasized using the canal as equipped green corridor integrating with train stations, maintaining existing commerce, and prioritizing public space accessibility (figure 74).



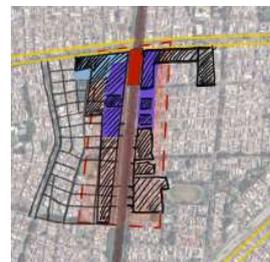
Figures 104: Alcaldía's_B (planimetry)

Group B's strengthened this alignment by proposing centralized commerce formalizing informal vendors while prioritizing residential rehabilitation (figure 104).

Both clearly responded to the goal of **heritage preservation and public realm quality, emphasizing "minimal intervention, lower budgets, faster implementation"**—pragmatic acknowledgment of financial constraints. However, proposals showed **limited engagement with mobility time-reduction targets or regional connectivity objectives beyond local station integration.**

Developer Proposals (Real Estate):

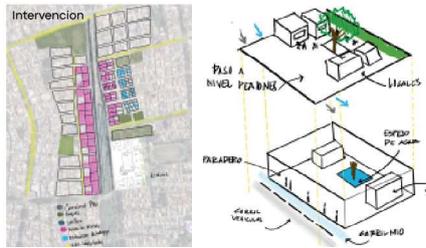
Group A and B versions revealed fundamental misalignment with TCV's stated socioeconomic objectives.



Figures 77: Developer's_A (redrawn zoning)

Group A (monday) proposal (figure 77) pushed for large-scale commercial centers, high-density luxury residential towers, privat-

ized public space management, and canal paving for vehicular access—maximizing "land value appreciation and financial returns."



Figures 107,108: (left) Intervention; (right) Planimetry and volumetry scheme Developer's_B

Developer_B's iteration attempted course-correction, acknowledging "habitability, mobility, coherence, socioeconomic identity," and explicitly critiquing the "problem of commerce creating displacement." However, the Group B proposal still prioritized "local market viability" and "auto-rentability through local commerce" rather than explicitly supporting job creation and inclusive densification articulated in TCV objectives. The developer role exposed tension between profit-driven development logic and public sector renewal vision.

JAC Proposals (Community Associations):

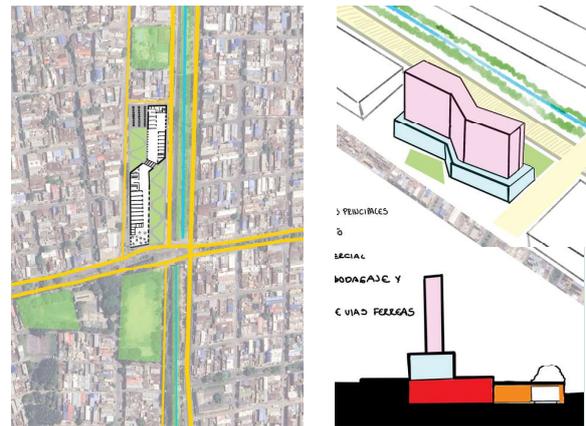


Figure 75: Zoning form JAC_A

Group A proposal aligned most directly with environmental and safety objectives, proposing the canal as green corridor with pedestrian trails, green covers, ecological pathways, and financial viability through informal commerce transformation.

Group B's shows an intention of level wise mixed-use logic while attempting to accommodate trade-offs between commerce, housing, and logistics. Proposal for underground bodegas and train infrastructure, mixed commercial-residential towers, and preservation of surface public space revealed student engagement

with complex three-dimensional urbanism necessary for integrating conflicting uses. Community association proposals demonstrated strongest alignment with Corredor Verde and heritage preservation objectives.



Figures 100-101: Localization of project and Volumetric scheme of the JAC_B.

Uncertainties

Financial and Administrative: Student proposals showed limited explicit recognition that the 70% national co-financing requirement (UR) (approximately COP \$8.4 trillion) has been subject to administrative delays and procedural bottlenecks at the central government level, including prolonged structuring and approval phases for co-financed rail projects (Financiera de Desarrollo Nacional [FDN], 2023–2024; Ministerio de Transporte de Colombia, 2024).

Neither **Alcaldía** nor **Developer proposals** incorporated contingency planning for funding gaps or legislative timeline risks (UE), particularly those associated with electoral cycles and the constraints imposed by the Ley de Garantías, which directly affect the authorization of future commitments (vigencias futuras) (Concejo Distrital de Santiago de Cali, 2025; Gobernación del Valle del Cauca, 2025).

Student work implicitly assumed funding certainty, proposing spatial and programmatic interventions without assessing how budget constraints, phased financing, or approval delays could cascade through implementation timelines. The idea that participants “did not fully grasp magnitude and timeline implications” applies directly here, as a projected **12-year implementation cycle—highly vulnerable to political discontinuity and inter-administrative coordination failures—received minimal strategic attention in the proposals** (FDN, 2023–2024; Leguizamón Viasus, 2025).

Technical and Environmental (UE): Developer proposals engaged with certain technical realities (mention of station integration, utility coordination) but did not address soil stability risks in San Judas Tadeo and Villa del Sur sectors, freight coexistence debate, or utility relocation complexity (18–24 month timeline).

The **JAC_B** proposal's suggestion of underground train infrastructure sidestepped rather than addressed engineering feasibility uncertainties. **The Alcaldía proposal's** emphasis on “proven models” and “level-grade station” showed awareness of technical constraints but did not adequately justify why these choices best manage soil stability or utility infrastructure risks. **No proposals explicitly documented geotechnical uncertainties or incorporated soil condition analysis.**

Social and Legal Uncertainties: The project requires resettling hundreds of families and businesses occupying tracks for 30+ years, particularly around Santa Elena Gallery, which concentrates UV (conflicting values over who should bear costs and benefits of relocation) and UR (dependence on parallel resettlement and decisions by public agencies).

Alcaldía proposals mentioned “*formalizing informal commerce*” but did **not address the high probability of merchant resistance from 400+ informal vendors whose livelihoods depend on current corridor dynamics**, leaving key UV (fairness, livelihood protection) and UR (agreements with vendor organizations and municipal social management programs) unexamined. **Developer_A** proposal ignored relocation entirely while maximizing built density; **Developer_B's** **acknowledged displacement risk but framed it as a design problem (“avoid gentrification”)** rather than recognizing political-economy barriers requiring sustained social management, again sidelining the core UV (equity, non-displacement) and UR (multi-agency coordination on housing, compensation and enforcement) uncertainties.

Neither set of proposals acknowledged that Ferrocarril del Pacífico's private freight concession represents a legal bottleneck requiring resolution before track access, which constitutes a critical UR about related contractual and regulatory decisions that condition whether any passenger-rail scheme can be implemented at all.

Security and Institutional Uncertainties: The TCV context acknowledges “vice corridor” dynamics where sections of the corridor are notorious for drug use and crime. **Students proposed lighting, active street-level uses, and public gathering spaces—sound tactical urbanism—but did not address how projects maintain long-term safety during 12-year implementation subject to political transitions.**

Developer proposals' emphasis on private management and controlled access implicitly acknowledged security concerns but proposed market-driven solutions (privatization, gated

access) potentially contradicting TCV's equity and accessibility objectives. **Alcaldía and JAC** proposals focused on community appropriation mechanisms but did not develop institutional frameworks for maintaining public safety investments across political administrations.

Student proposals functioned as architectural designs (positioning structures, organizing uses, creating spatial relationships) rather than as strategic plans navigating multiple uncertainties simultaneously. **Competencies achieved:** **Spatial problem-solving** (integrating commerce, housing, transit, public space in constrained corridor); **tactical urbanism** (lighting, active ground floors, green spaces); **site responsiveness** to existing problems (waste accumulation, insecurity, pedestrian-hostile conditions).

Students struggled with Acknowledging that bridge foundations are uncertain and may not hold despite brilliant blueprint; understanding that merchants will resist formalization and that resistance is rational protection of livelihoods; recognizing that government funding failures and political transitions are not exceptional risks but endemic to 12-year processes; appreciating

that social processes (land liberation, relocation, community appropriation) are the actual critical path determining project viability, not infrastructure engineering or architectural design.

The validation reveals that students proposed what a completed project would look like, demonstrating competence in spatial design and urban acupuncture logic. What they did not adequately address was **how to navigate the cascading uncertainties, political resistance, financial constraints, and institutional discontinuities that would determine whether their designs could be realized at all**. This gap reflects not student failure but the pedagogical challenge: integrating design excellence with institutional literacy required to translate vision into implementation amid irreducible uncertainty.

6_2. Peer Review

ART_Diana Mazo

The stakeholder for triangulation is Diana Mazo, a professional at the Autoridad Regional de Transporte (ART), the regional transport authority that coordinates mobility planning across Cali and the surrounding municipalities (Jamundí, Yumbo, Palmira). Her role involves articulating the Green Corridor with the broader Tren de Cercanías del Valle (TCV) project, mediating between engineering teams, municipal planning offices, and community-facing processes. Diana Mazo was selected as validation stakeholder because:

- She has direct project involvement, with first-hand knowledge of constraints, negotiations, and trade-offs that shaped key decisions for TCV and the Green Corridor.
- She holds a multi-scalar perspective, coordinating municipal, departmental, and national actors, which exposes interdependencies students often overlook.
- She has temporal continuity, having participated across political cycles and thus understanding how electoral changes and national financing delays affect project trajectories.
- She was part of the initial interviews so had a bit of context on the project.

Her work requires bridging technical and social dimensions by integrating feasibility factors such as alignment, power systems, utilities, and soil conditions with land liberation, relocation, and community negotiations. She demonstrated pedagogical openness by engaging constructively with student work, recognizing both its value and its limitations for real-world implementation. However, due to time and resource constraints, triangulation relies on a single expert perspective, which is acknowledged as a

limitation since it represents only one institutional view within a broader multi-actor process and should be complemented by future validations involving community and private-sector stakeholders.

The validation took about 60 minutes, combining a brief presentation of participants application process, the review of the deliveries and systematic, open-ended questioning. The conversation followed four phases:

Context setting (≈10 m)

Presentation of SCA methodology, the four types of uncertainty, and the pedagogical objective. The expert was informed that **validation aimed at learning and methodological refinement, not at grading or project approval.**

Proposals review (≈15 m)

Student proposals were reviewed by role and session.

Thematic deepening (≈20 m)

Follow-up questions focused on issues that repeatedly emerged during the review.

Synthesis and recommendations (≈10 m)

The expert was asked to note convergences and divergences, suggest improvements to methodology and teaching, and identify student ideas useful for the project.

Contrasts and Alignments

The interview highlighted structural misalignments in three main domains: **commercial scale, infrastructure configuration, and working-environment uncertainties.**

Commercial Scale

The Intended character of the corridor was mentioned, as participants' assumptions, particularly in the USB (SCA_non UA) developer proposal.



Figures 77: Developer's_A (redrawn zoning)

These proposals envisioned large-scale commercial centers, high-density luxury housing, privatized public space managed by private entities, and maximized ground-floor commercial use. In contrast, the expert clarified that the sector is meant to remain predominantly residential, with commerce limited to neighborhood-scale activities such as bakeries, hair salons, and small shops—not shopping malls or major commercial complexes. Public space must remain accessible, with green zones and pedestrian-oriented design preserved as core elements of the project vision.

This misalignment highlights how some student teams, when assigned developer roles, reverted to conventional real-estate models rather than grounding their work in the municipal land-use plan. The expert emphasized that proposals resembling a “shopping mall +

luxury housing” scheme fundamentally misunderstood the project’s strategic intent. The PEMP explicitly seeks to consolidate that zone, aside from Santa Elena as a residential area with small-scale commerce, maintaining habitability the sector’s value.

Which could partially work with Alcaldía and JAC (SCA_non UA - Group A_mon) proposals, as they have a very general zoning:



- | | |
|-------------------------------------|--|
| ■ Facilities or commercial uses | ■ Green corridors |
| ■ Parks, green areas / public space | ■ Canal |
| ■ Built space | ■ Main streets (Calle 25) |
| ■ Main streets | ■ Ecological paths that connect both sides of Calles 25 and 26 |
| ■ Study area | ■ Shops with green roofs |

Figure 73: Zoning (Alcaldia_A)

Figure 75: Zoning (JAC_A)

Therefore, large private malls, buried roads, and privatized public space management were therefore seen as incompatible with the project’s framework, underscoring the boundary between pedagogical freedom and institutional reality.

Underground Train/Tram

Alcaldía_B and JAC_B (USB_SCA+UA), proposed underground train infrastructure as a way to resolve spatial conflicts between freight operations, passenger transport, and public space quality. In the Santa Elena sector, however, grade-level operation is a fixed institutional

and financial constraint rather than a negotiable design parameter.

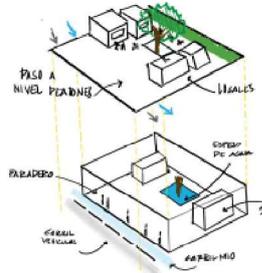


Figure 108: Volumetry (Alcaldia_B)

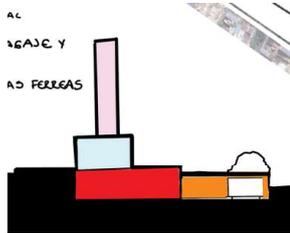


Figure 101: section (JAC_B)

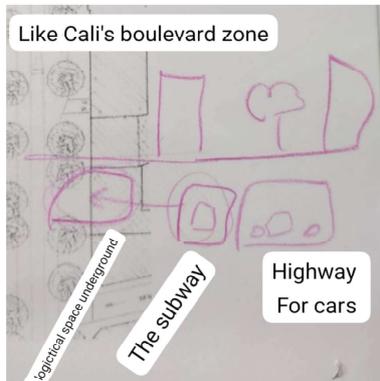


Figure 133: drawing from the meeting (Author's and D. Mazo Skeetch)

One JAC_B proposal even suggested an additional train line connecting to underground warehouses, whereas the official Santa Elena market plan defines a smaller influence area and places storage on the second and third floors. This represents a major divergence between student ideation and professional reality, highlighting the boundary between pedagogical freedom and implementation necessity.



Figure 134: On the 4th program in the Santa Elena Market proposal, the creation of new spaces, collection and warehousing (Source: SITREN, 2025).

Mazo emphasized that while underground infrastructure may appear to be an elegant solution for improving public space and eliminating surface conflicts, the city lacks the financial and institutional capacity to pursue it. The project must proceed with grade-level infrastructure as the only viable option under current conditions. As for the The financial framework is entirely based on grade-level operation assumptions. All feasibility studies, cost estimates (USD 1.715 million for the 73.4 km network in prefeasibility analysis), and financial models were developed with the expectation that the train would run at street level using standard catenary overhead electrical feeding.

Hence, it is important to recognize that urban planning involves not only generating creative alternatives but understanding which constraints are negotiable through advocacy and which are immovable due to systemic conditions.

For example, a comment on this distribution, only using the reference of platform-tower building could work as it keeps a bit the different activities

Preferred Scheme:

The ART expert highlighted green space preservation and zoning as key differentiators, noting a common weakness: many proposals prioritized density and commercial space over adequate green areas, contradicting TCV sustainability goals and urban acupuncture principles.



However, the Alcaldía (SCA_non UA) proposal identified existing green areas, reminding Mazo of their central importance to the project. In this sense, I believe the schemes that most clearly convey an intention toward greater greenery are JAC (SCA_non UA) and Alcaldía (SCA+UA). The latter also demonstrates this intention, though it was not previously highlighted—while noted in the written proposal, it was less evident in the drawings.

The strongest validation, however, applied to the Alcaldía_B proposal (SCA+UA), by her assessments in terms of zoning organization and public realm activation composing a better pedestrian experience, walkability, and functional viability.

First, residential frontage preservation along the TCV corridor established predominantly residential zoning on the blocks directly front-

ing the train corridor and green space. This created a buffer between intensive commercial and logistics activity and the public realm of the Corredor Verde. Residents facing the green corridor were incentivized to maintain and appropriate public space, support community gathering, and naturally surveil the corridor through windows and ground-floor activity.

Second, logistics were internalized within block interiors rather than placed along street frontage, avoiding blank warehouse facades and truck-loading activity that degrade pedestrian experience. Third, the proposal also avoided closed-off facades by ensuring continuous ground-floor vitality—storefronts, residential entries, and institutional uses—that foster a human-scale street environment and reduce insecurity through natural surveillance.

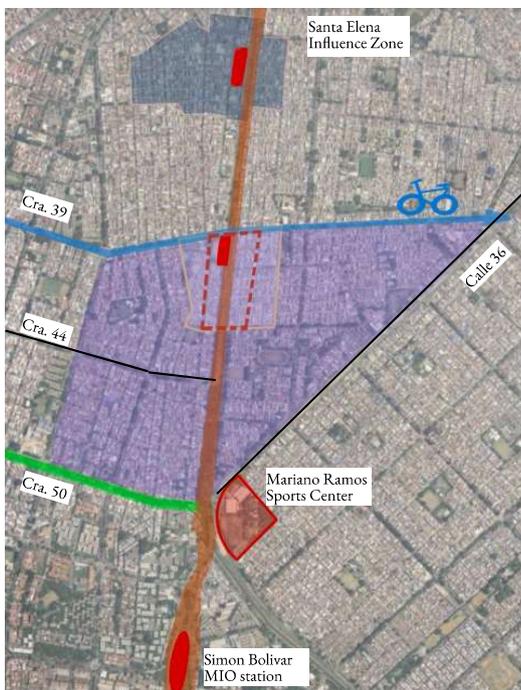


Figure 135: Zoning map with concluding comments from D. Mazo (Adapted from sketches during the meeting by Author,)

Finishing comments:

Santa Elena Influence Zone is a protection and transition belt, where heritage, logistics, and market must be carefully managed rather than radically transformed.

The TCV/Green Corridor (orange line) is the main structuring axis, concentrating regional accessibility and framing the primary public-space and stations interventions.

The purple area was identified as the real influence area of the selected sector where student proposals should've concentrated mixed-use, housing, and public-space strategies.

Carrera 39 (blue line) is identified as the priority cycling corridor, key for active mobility and safe north-south connections parallel to the train, while Carrera 50 (green line) and 44 were framed as a supporting vehicular and neighborhood access street, not the main focus of heavy redevelopment.

Overall, the conversation used this sketch to stress three points: 1) concentrate design effort inside the selected triangle, 2) protect and reinforce housing in the residential belt facing the Green Corridor, and 3) treat Carrera 39 as the spine for bicycles and local movement rather than overloading the corridor with cars or mega-projects.

7. CONCLUDING THOUGHTS

The research examined how the Strategic Choice Approach (SCA), combined with adaptive planning principles and Urban Acupuncture, can support decision-making in complex urban projects such as Cali's Green Corridor and the Train-Tram (TCV) initiative, when mediated through university workshops and digital tools. Instead of seeking a single "best" scheme, the process showed how structured attention to uncertainty, actors, and small-scale interventions helps students frame more conscious, situated, and negotiable urban strategies.

Methodologically, the collaborative digital whiteboard worked as an intermediate solution for purely physical and virtual sessions. Especially as it allowed duplication, reorganization, and reuse of students' inputs across SCA modes without redrawing diagrams, reducing logistical friction for facilitators and professors. Yet its classroom performance was highly context-dependent: the Javeriana pilot benefited from relatively stable connectivity and interaction, while San Buenaventura Group A (Mondays) faced frequent technical issues, unstable connections, and heavy reliance on mobile phones, which slowed the work and generated frustration. Overall aiming to:

1. Test SCA's utility for structuring uncertainty in participatory architectural/planning education.
 2. Extend SCA into micro-scale interventions (UA), exploring where decision-structuring meets design practice.
 3. Examine how framing (with or without explicit UA emphasis) influences the types of options and interventions students propose.
 4. Develop practical guidance for using SCA in studio settings and decision-support workshops in the Global South context, where resource constraints and institutional volatility amplify planning uncertainty.
- The difference between virtual and in-person sessions was especially revealing. Virtual workshops suffered from low attention, multitasking and weak participation, reproducing dynamics observed during the pandemic and in the later attempt to convene an online triangulation session with professionals and students, where attendance and engagement were minimal. In contrast, face-to-face sessions allowed more fluid dialogue, faster collective drawing and a stronger sense of shared focus, suggesting that, at least for early SCA learning with students, digital platforms work best as support for co-present work rather than as a fully virtual environment.
- Students' relationship with the digital board also exposed a tension between fluid ideation and the pressure to "write correctly." When working directly on screens, many hesitated

or slowed down, as if each entry needed to be a polished, final version, whereas the use of paper, markers and hand drawing in parallel made brainstorming more spontaneous and less inhibited. The ability of the platform (and its built-in AI tools) to transcribe photos of these sketches into editable text created a productive bridge: ideas could emerge informally and then be quickly translated into structured SCA artefacts.

The use of artificial intelligence was another central experimental axis. On one hand, large language models helped unblock writing, generate initial structures for the thesis, suggest option lists or comparison criteria, and act as a “second mind” to refine drafts without losing the author’s original intention. On the other hand, models like ChatGPT tended to invent information, drift away from the specific empirical material of the Green Corridor and TCV, and respond with generic optimism, which required constant critical checking and highlighted the risk of over-trusting opaque systems whose sources are unknown.

Over the course of the project, it became clear that not all AI tools behave in the same way. Notebook-style systems restricted to a curated document set proved more precise and controllable, as they forced any answer to remain within the corpus of reports, plans and workshop outputs actually used in the thesis. This contrast reinforced a key lesson: prompts must include clear contextual summaries and explicit constraints, and AI outputs must be treated as hypotheses or scaffolding—never as final diagnoses—especially when dealing with real urban conflicts and stakeholders.

Regarding SCA itself, the workshops confirmed both its pedagogical potential and its limits un-

der constrained conditions. Students rapidly grasped the basic logics of decision areas, options, balances of judgement and the four types of uncertainty (UE, UV, UR, UD), and several metaphors (boat in the storm, rocket and capsule, chef in the kitchen) proved powerful in translating abstract concepts into lived experience. At the same time, time pressure, uneven prior knowledge of the Green Corridor and the experimental nature of the sessions meant that most groups remained at a relatively general level in their decision graphs and option schemes, with limited development of full commitment packages or phased implementation pathways.

The workshops also exposed the centrality of values and conflicts in urban decisions. Moments of disagreement—such as the insistence on underground rail solutions or on maximizing real-estate exploitation regardless of displacement risks—made visible the uncertainty about guiding values (UV) and showed how students often assume their own preferences as absolute truths. Through role-play (City Hall, Developer, Community Board) and the structured comparison of schemes, many participants started to recognize that “good” options are partial, that someone will always lose something, and that explicit value discussions are necessary to reach more informed and transparent collective decisions.

In relation to Urban Acupuncture, the thesis suggests that many professionals and students already operate with ideas very close to this theory—even if they do not name them as such. Emphasis on small, targeted, low-cost and quickly testable interventions appears repeatedly in both expert interviews and student proposals, especially around cleaning and activating residual spaces, improving lighting and ground-floor commerce, and using tactical

measures to relieve pressure while larger infrastructural decisions remain blocked. What the notion of strategic acupuncture adds is a language and identity that make explicit this link between a broader strategic framework (SCA) and localized, adaptive actions capable of managing uncertainty over time.

The case of Cali's Green Corridor and the TCV project revealed how disruptive events—social uprisings, pandemics, budget cuts, institutional fragmentation, even heavy rain—can paralyze urban systems. Expert feedback showed that, despite uncertain co-financing and delayed approvals, local actions such as sidewalk improvements, cleaning campaigns, public-space reorganization, and data collection can still advance corridor objectives “by the edges” while larger conflicts are resolved.

A key insight is that SCA helps avoid paralysis when everything seems to hinge on a single “big decision.” By mapping interdependencies, distinguishing types of uncertainty, and identifying exploratory options, it enables progress on complementary fronts and distributes responsibilities across actors and time frames. At the same time, the thesis highlights a weakness in architectural education: early planning often lacks structure, beginning with broad searches and sketches that produce incoherent “mixtures” of ideas. Requiring an initial identity—whether Urban Acupuncture, a 15-minute city, or transport-oriented development—anchors subsequent choices around a stable strategic thread.

The work further suggests that the main contribution of combining SCA and Urban Acupuncture lies not in inventing a new technique but in naming and structuring practices that already exist in dispersed, intuitive form. De-

fining “strategic acupuncture” makes it easier to teach, discuss, and refine how small, adaptive interventions can be embedded in broader decision processes, aligning methodologies for planning under pressure with ethical, social, and environmental intentions rather than applying them purely technically. In sum, the thesis does not claim SCA plus Urban Acupuncture is the definitive way to manage uncertainty in urban projects; instead, it shows how this combined lens can enrich architectural education, uncover hidden layers of conflict and opportunity in projects like Cali's Green Corridor, and foster more conscious, iterative, and situated decision-making, where digital tools and AI serve as supports rather than substitutes for human judgment and local knowledge.

8. Apendix

The appendix gathers supplementary material that underpins and enriches the main body of this thesis. It includes extended interview transcripts with key stakeholders involved in the Green Corridor and TCV projects, as well as detailed documentation of workshop procedures and tools used in the decision-making exercises.

These materials provide transparency regarding how empirical insights were obtained, how uncertainties were mapped, and how Strategic Choice Approach and Urban Acupuncture ideas were communicated and operationalized in practice.

The section also presents translations and full versions of protocols, surveys, and case-study briefs that were only summarized in earlier chapters, offering readers and future practitioners a replicable resource for adapting the methodology to similar urban planning contexts.

***For transcribing the document from a .m3p file taken with Google Recorder, the prompt*:**

I NEED to transcribe the information from the audio files into text. To do this, I will upload a series of files which are audios, and they have an interview format; moreover, the range of people is approximately 2 to 5 people. I REQUIRE that the document you generate has the following format: "Person 1: text \n Person 2: text \n Person 3: text", etc. Lastly, do NOT omit any type of information, gesture, expression, word, and content that is mentioned; everything that is said must not be censored or omitted for any reason.

So, I will start with audios of two people so that you can adapt. REMEMBER, you must not omit any kind of information that is in the audio.

***after the file is done, in spanish*:**

I need you to translate this document into English and generate another file. Do not limit, censor, or omit any information in the text. Do not change the format of the document.

8_a. Interview

Aldo Marcelo Hurtado

ANNEX 2: INTERVIEW WITH ALDO

Date: September 15

Topic: Green Corridor and Urban Development

Participants: Ana M. Salazar (Interviewer) and Aldo M. Hurtado (Interviewee)

Aldo M. Hurtado: Well, the Green Corridor was a competition that was led more by the, uh well, at that time it was the well, with the mayor's office, but the funds came from Pro Pacífico, which is, let's say, the entity that supports projects, which is part of the Chamber of Commerce.

Ana M. Salazar: Okay.

Aldo M. Hurtado: That is like setting up, yes.

Ana M. Salazar: They set up like an entity that manages funds to carry out studies for the city.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: At that time it was called, well, I do not remember right now what it was called, but it came out of that same Pro Pacífico. The idea obviously was to structure a Green Corridor concept.

Ana M. Salazar: This idea had been talked about by some professors and and urban architect planners for some time.

Ana M. Salazar: Marcela Falla spoke a lot about the initial concept and then when they chose to talk about the Green Corridor, it was based on the area of the railway strip that was left there.

Aldo M. Hurtado: Yes, yes, it was never actually that green, right?

Ana M. Salazar: Without use, exactly.

Ana M. Salazar: It had a protection strip, but it had been left without use.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: And obviously it was a line that was kind of dividing the city, but let's say if you look at it from the positive side it was a strip of an environmental corridor that could be used.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: So they launch the international competition, we applied together with a firm called Espacio Colectivo and a firm from Medellín called Opus.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: It was in two rounds and well, we won the competition.

Ana M. Salazar: The idea that we proposed in the competition, a bit in general and understanding that the city was, let's say, divided by that large corridor, was to try to connect the eastern and western sides, so the name given at that time was "Between the Hills and the River."

Ana M. Salazar: The Green Corridor between the hills and the river, which meant looking at the transversality of that linear horizontal element, well, because we have always seen the map as, it is always seen up there, north-south.

Aldo M. Hurtado: Yes, but that is because we have always had the maps and no one turned them the other way, so we wanted to, like, look at that subject and also well, we have always read it with the hills in the background and the river behind.

Aldo M. Hurtado: Of course, and turning it like that I suppose you can see a bit more how it would have to.

Ana M. Salazar: That transversality, exactly.

Ana M. Salazar: So that was very intentional.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: To see that reading in the other direction and try to make the whole project have a transversal quality.

Aldo M. Hurtado: Right.

Ana M. Salazar: That is, to fragment and connect using that linear element, to stop seeing it as a linear corridor and instead see it as a structure that, in addition to being linear, would start to connect the city transversally.

Ana M. Salazar: So understanding the systems, well.

Ana M. Salazar: So from there some lines of work were proposed, a line of objectives.

Aldo M. Hurtado: Mhm.

Aldo M. Hurtado: Yes.

Aldo M. Hurtado: More or less what were the objectives you had at that time?

Ana M. Salazar: Uh, no, in fact the objectives of the mayor's office and so on were to resolve a preliminary design scheme for the Green Corridor, for a linear element.

Aldo M. Hurtado: Okay, but yours?

Ana M. Salazar: We proposed four objectives focused on looking at the entire issue of mobility.

Aldo M. Hurtado: Okay.

Ana M. Salazar: Public space, facilities and the whole real estate topic, like the growth that could occur around that area, involving everything around the corridor.

Aldo M. Hurtado: And were there other issues that you wanted to turn into objectives or why did you select those four?

Ana M. Salazar: No, because obviously they are like an initial structure.

Ana M. Salazar: Let's see, another thing that happened was that we understood, for the competition the project and that imaginary of connecting what was being told now was proposed.

Ana M. Salazar: When we went to execute the project, that is, the project contract, we saw that the real objective we had to deliver was to structure a master plan, a city vision plan.

Aldo M. Hurtado: Okay.

Ana M. Salazar: So besides fulfilling the contract, which was to develop a preliminary design of the Green Corridor's public space, we produced, we made like a, well, a guide, a master plan, a brochure that carried out a general analysis of the city and scaled that to a master plan vision for the Green Corridor.

Aldo M. Hurtado: Okay.

Ana M. Salazar: Yes, so it had some structuring elements.

Aldo M. Hurtado: At that moment was it when you moved to the next stage you were mentioning?

Ana M. Salazar: Yes, the development phase.

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: That is, we had already won the competition, we were developing the project.

Aldo M. Hurtado: Right, okay.

Ana M. Salazar: So in that development phase what was left for the city was that, it was a master plan that structured, from a city vision down to an articulating element broken into segments.

Aldo M. Hurtado: Okay.

Ana M. Salazar: That city vision.

Ana M. Salazar: Which in the end structured what for?

Ana M. Salazar: So that it could rather be a line of work for what followed in planning, for the mayor's office, which was achieved, let's say, in the UPU, the government managed to incorporate some Green Corridor issues and in the end it was obviously difficult to devel-

op the project because it was a very ambitious project, many kilometers long, and there was no money to develop the public space project, especially if they did not change the property regulations on the edge that generate the land value capture.

Aldo M. Hurtado: Mmm, of course.

Ana M. Salazar: To obtain resources for the Green Corridor.

Ana M. Salazar: Because at that time, when the whole corridor came out, they froze the land use and permits over a 200-meter-wide strip around it, so.

Aldo M. Hurtado: Oh, the 200 meters meant that you could only build like two floors?

Ana M. Salazar: Two floors, exactly.

Ana M. Salazar: I remember that we had to do the fifth semester project using that constraint.

Ana M. Salazar: Yes, you could not do anything, so of course, anyone who wanted to invest there in the corridor in front of that major project could not do it.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Up to today it is blocked.

Ana M. Salazar: So there as well their equation was zero, well, there were many fears to unlock that area because other things could be done that they did not want.

Aldo M. Hurtado: Like what?

Ana M. Salazar: Raising land values, although that can be partially frozen through the route by trying to adjust it and having a single fixed value.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: It could be done.

Ana M. Salazar: There are mechanisms, but at that time the fears remained and up to today it is blocked.

Aldo M. Hurtado: They are still kind of afraid.

Ana M. Salazar: It is blocked, by planning regulations you cannot build there, but there is neither investment, so it is a management issue.

Aldo M. Hurtado: Mhm.

Aldo M. Hurtado: Because I also understand, well, what I had heard is that in one way or another much of that area is blocked because of the airport, because of the air base.

Ana M. Salazar: Because of the air base.

Ana M. Salazar: Well, in terms of heights, but no, it is not so much, it really is a zone.

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: But the development could still take place, depending on the area you had.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Because Cali's zoning does not have a specific height limit, it uses FAR indices.

Aldo M. Hurtado: Yes, that is true.

Ana M. Salazar: And then one grows within those indices.

Ana M. Salazar: So at that time what we structured was that, a master plan that could serve as a basis to continue building city guidelines.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Right?

Ana M. Salazar: But it did consider the combination of all the projects that existed in the city, involved in the project, that could be included, such as river projects and their articulation with the rivers along the Green Corridor.

Ana M. Salazar: Identifying important nodes along the corridor to articulate those transversal flow crossings.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Well, obviously, it had to be articulated with the commuter train that at that time was called the train-tram.

Ana M. Salazar: Today what has been proposed has nothing to do with what had been proposed in the

Green Corridor, neither in public space nor in stations nor anything.

Ana M. Salazar: Maybe some stations coincided, but it is not articulated.

Ana M. Salazar: And they did consider it, but a lot of that happened; we knew that was going to happen because the project was so big that each project was going to try to adjust it.

Aldo M. Hurtado: In each mayoral term everything changes.

Ana M. Salazar: That is why we focused more on structuring a vision plan and a master plan to read the city and understand it through these articulations of all the mobility systems and public space.

Aldo M. Hurtado: But then currently you are no longer involved at all.

Ana M. Salazar: No, not anymore, the same.

Ana M. Salazar: Sometimes the mayor's office calls us to see something, to ask what it was we did.

Ana M. Salazar: So yes, the topic is still ongoing, but it is something they will develop in stages and surely they will hire for each moment a connectivity segment.

Ana M. Salazar: We have indeed continued doing projects.

Ana M. Salazar: Let's see, within the project we also proposed, knowing its scale, a sequence of projects we called early wins.

Aldo M. Hurtado: Okay.

Ana M. Salazar: They were trigger projects around the Green Corridor that could be proposed so that later, uh, for example, what was done?

Ana M. Salazar: The Valle liquor company.

Aldo M. Hurtado: Okay.

Ana M. Salazar: The liquor plant project, which is today the dance center.

Ana M. Salazar: Then the segment of the Cali River where they did the, the, the... the Pacífico project, what

is it called?

Ana M. Salazar: The park in front of the terminal.

Ana M. Salazar: Which is already under construction.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Right?

Ana M. Salazar: So there is a public space project on Eighth Avenue.

Ana M. Salazar: These trigger projects that are being generated around the Green Corridor allow us to connect them very quickly.

Aldo M. Hurtado: Right?

Ana M. Salazar: That is, they generate new connection projects.

Aldo M. Hurtado: Okay.

Ana M. Salazar: So those early wins and those trigger projects sought to articulate a new development node so that the connections between them would be smaller projects and would unfold over time.

Ana M. Salazar: Right?

Ana M. Salazar: Because they are very easy to connect, very close.

Aldo M. Hurtado: So more people would also start getting involved and try to develop the area and that, I do not know, like pushing the mayor's office or.

Ana M. Salazar: Yes, of course, because if the project is already moving, there is one project here, another one there, well, let's connect them.

Aldo M. Hurtado: Uh-huh.

Ana M. Salazar: Then another quick project can be done.

Ana M. Salazar: That is why they were called early wins and trigger projects, because they were generating an environment, changing an environment.

Aldo M. Hurtado: Of course, like in urban acupuncture, you place the pin and it starts to improve the

whole area a bit.

Ana M. Salazar: So of course, the connection between, I do not know, the at that moment I would believe that the relevant project for the corridor is to connect Eighth Avenue with the Cali River.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Because that stretch there, which is in section two of the corridor, is very short, but it would connect in public space all the east with the west.

Ana M. Salazar: Because Eighth Avenue already has public space almost all the way to Juanchito Bridge.

Aldo M. Hurtado: Yes, it is already very nice.

Ana M. Salazar: That is, all the way to the air base.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Let's say no matter what the project is, there is already public space that connects up to the Green Corridor and there is another river project that also connects to the Green Corridor.

Ana M. Salazar: So that stretch could make a very quick, early connection.

Ana M. Salazar: Like that would be the other win to be able to reconnect there.

Ana M. Salazar: The hole at the pilot is set to be developed, already in urban development, the river project, the Cali River project, the Pacífico project, I forget the project name.

Ana M. Salazar: Well, it is about to be delivered as well.

Ana M. Salazar: So all those areas are going to have a new life.

Aldo M. Hurtado: Okay.

Ana M. Salazar: So those connections were a bit what was being sought.

Ana M. Salazar: We have continued developing projects there, so we did the entire PEM project in Santa Elena, for example, which is part of the Green Corridor.

Aldo M. Hurtado: Yes, I saw it within what I was re-

searching.

Ana M. Salazar: They called us, invited us, that was also another contract and we won it.

Ana M. Salazar: Well, because we understood like the sense of the Green Corridor topic and those trigger projects.

Ana M. Salazar: So we worked on that.

Ana M. Salazar: So then there is another project that is in urban development in that area that was proposed, so that is what I am telling you, they are like projects that are being placed along the corridor that can be interconnected.

Aldo M. Hurtado: Mmm, let's see, more questions about uncertainties.

Aldo M. Hurtado: What were the biggest problems or uncertainties you had at the time of decision-making?

Ana M. Salazar: The regulations were one, because obviously although we proposed a topic of development, let's say of some profiles and urban densities that could be around the corridor so that they would give you a land value capture for project management, the regulations were not in that direction at the time, the POD was in another direction, so it could not be done.

Ana M. Salazar: So let's say those were the topics like the complex challenges in which it was proposed, but it was complicated to do on time.

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: They proposed it like a change to the regulations for that project, but the densities, yes, like a topic of density of development of profiles was proposed.

Ana M. Salazar: Because obviously all the sections had different densities, because the corridor had some sections where it was changing and that is why they were developed with a name, a different typology, because the section was more wide, because the place where it was was more neighborhood-like, another was more downtown, another was more commercial, right?

Ana M. Salazar: I mean, it was varying along the Green Corridor.

Ana M. Salazar: So each node had a different development dynamic as well.

Ana M. Salazar: Let's see, what other questions did I have.

Aldo M. Hurtado: The priorities.

Aldo M. Hurtado: Ah, what references if you used references, what references did you initially use?

Ana M. Salazar: Uh, we used, let's see what I remember right now.

Ana M. Salazar: Maybe the, it is that I do not remember the name, like the necklace of pearls, necklace of Mexico.

Aldo M. Hurtado: In pearls.

Aldo M. Hurtado: Ah, okay.

Aldo M. Hurtado: Mexico City?

Ana M. Salazar: Yes, there is a project called the necklace of pearls or the well.

Ana M. Salazar: Right now if I remember I will tell you, I will write you now.

Aldo M. Hurtado: Okay.

Ana M. Salazar: Well, like for each section we had like a vision of referents, right?

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: For example, the topic of section two where it was connecting the downtown with everything about the river, the terminal, there was a referent there because it was like a meeting place of a very large scale.

Ana M. Salazar: So let's say the referent of Chicago's Millennium Park was like a referent a bit of what could happen in that zone.

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: Right?

Ana M. Salazar: Uh yes, but not as a referent like that because it was a long time ago, so I do not remember, let's see what else we could have had.

Ana M. Salazar: I know that connecting small parks with those public spaces that are projected in Mexico.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Uh what else could we have had as reference at that time?

Ana M. Salazar: Some projects in China.

Ana M. Salazar: No, I do not have it like...

Ana M. Salazar: Take it easy.

Aldo M. Hurtado: Well, then of the initial objectives you had like for each stage or each small part of the project, which were the ones that were actually articulated within what has been able to be done until now?

Ana M. Salazar: Well, some were articulated that entered in the UPU.

Aldo M. Hurtado: Okay.

Ana M. Salazar: The UPU were the planning units.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Well, well, and they were, at that time they are still being structured when we delivered the Green Corridor.

Ana M. Salazar: We managed to give like an alignment of projects so that the UPU would adopt them and include them.

Aldo M. Hurtado: Okay.

Ana M. Salazar: Among the vision projects they had.

Ana M. Salazar: Well, that and the trigger projects.

Ana M. Salazar: The topic of the liquor factory, which becomes a cultural building, there is also the Molino Roncallo, there is all the topic of, well, the old station.

Ana M. Salazar: So some are still like in project form that something can happen, Santa Elena, but they have not happened, well, let's say that and things have been articulated, something has been articulated from the normative side and something has been articulated from the project idea side.

Aldo M. Hurtado: And just to have it mentioned, which were the ones that remained structured within the UPU that you were creating?

Ana M. Salazar: No, let's see, the UPU that were managed to be incorporated, I do not remember what number of UPU it is, but they are the ones that have to do with the Green Corridor.

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: The ones that pass through the Green Corridor, because in the end they called us to see, well, what did you propose?

Aldo M. Hurtado: No, but, but.

Ana M. Salazar: And some connection and transversal projects were stated and some river connections, because we also generated, let's see, we generated some sections, those sections were divided into homogeneous units and those homogeneous units generated some sub-projects that were apart from the corridor, well, there are some projects that are connecting to generate that network of articulation of the corridor with other projects.

Aldo M. Hurtado: And those were the ones that were actually articulated within some of those, yes, because the UPU says connection of Street 25, which is the corridor with well, public space of all the, I do not know, Street 39.

Aldo M. Hurtado: Okay.

Ana M. Salazar: So that was one of the streets that public space was improved, the tree planting and it connected with the Green Corridor.

Ana M. Salazar: So some were infrastructure, others were environmental, right?

Ana M. Salazar: Others were some of the facilities.

Aldo M. Hurtado: A long time ago.

Ana M. Salazar: Yes.

Ana M. Salazar: But let's say that it was achieved.

Ana M. Salazar: Do you have the complete Green Corridor document?

Aldo M. Hurtado: Uh, I have access to what is on Arch Daily.

Ana M. Salazar: No, not there.

Aldo M. Hurtado: No, it is missing a lot, I am trying to find.

Ana M. Salazar: No, no, remind me to see if I, it is like I am going to copy the document I am telling you, the master plan, because everything is structured there.

Aldo M. Hurtado: Ah, that would be best.

Ana M. Salazar: I mean, there, there, there, the planning part is there.

Aldo M. Hurtado: Yes.

Ana M. Salazar: Yes, because the other one really was like the idea.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: But what I am telling you was all the urban planning topic.

Aldo M. Hurtado: It would help me a lot, it would be super cool.

Ana M. Salazar: But then, talking about that planning, within the original team or the original actors, mayor's office, the, how did you say?

Ana M. Salazar: The Pacífico.

Ana M. Salazar: Pro Pacífico.

Ana M. Salazar: Pro Pacífico, do you know which ones are involved right now?

Ana M. Salazar: The project continued initially, that was born, it was born from infrastructure.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: From infrastructure and then it moved to planning.

Ana M. Salazar: Planning was the one that was articulating all the Green Corridor topic.

Ana M. Salazar: I mean, it was in the hands of planning as such.

Ana M. Salazar: That is where all the information is, where some small sections are developed, at some point they developed a small connectivity that there was, but everything is really being developed by the mayor's office with planning.

Aldo M. Hurtado: Ah, okay, and now they are subcontracting each section, or what?

Ana M. Salazar: Well, if there is something involved, they look at what was in the plan, and obviously some contract or competition comes out.

Ana M. Salazar: No, not yet, but on some topic sections.

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: The only thing that has come out so far is Santa Elena, for example.

Aldo M. Hurtado: Ah.

Ana M. Salazar: Which has to do with Green Corridor and which was a trigger project for the Green Corridor.

Aldo M. Hurtado: That you already had there mentioned.

Aldo M. Hurtado: What do you think would be the biggest current risks for finishing the project, between financial, social, environmental and technical ones?

Ana M. Salazar: The risk for me, well, it is not risk, the difficulty I would believe is the topic of public management.

Aldo M. Hurtado: But management like that, they are taking a long time, they are not making decisions.

Ana M. Salazar: That they want to do it.

Ana M. Salazar: That they say, ah, let's go, let's take the project and we are going to develop part of it.

Ana M. Salazar: That seems important to them so they can put money there.

Ana M. Salazar: Because obviously they say, no, it is that we have already done part of the Green Corridor, well,

what I told you Santa Elena, the commuter train is part of the Green Corridor.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: So even if they have not developed it urbanistically, they already have the transportation topic.

Aldo M. Hurtado: Okay, so of the detonators to be able to, I do not know, boost them or pressure them to continue with the Green Corridor, I believe what.

Ana M. Salazar: Well, look, one of the topics that we always tried to mention to give continuity to the corridor was a more communication topic, communication management, because for example, the topic of the Green Corridor as a city plan, a city vision, ultimately we believe that should have been adopted as a city vision was the development of the Green Corridor as an articulator of the entire city.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Right?

Ana M. Salazar: But well, we insisted that it always be talked about the Green Corridor as something that continues in management.

Ana M. Salazar: So, for example, when they did the dance center, they should have said, they launched the first Green Corridor project, the first trigger project of the Green Corridor, the dance center.

Ana M. Salazar: Then the Cali River topic.

Ana M. Salazar: The other trigger project of connection of the Green Corridor, the river project.

Aldo M. Hurtado: Of course, and it seems like that, yes, they were connecting with something they had already done.

Ana M. Salazar: Santa Elena.

Ana M. Salazar: Yes, we are doing the Green Corridor, we are triggering the projects and we are heading there because our vision plan.

Ana M. Salazar: So of course.

Aldo M. Hurtado: Like they keep the same thread.

Ana M. Salazar: Right, because ultimately what happens with that is that you are talking so much that already the same citizens will ask you for it.

Ana M. Salazar: Come on, let's connect that Green Corridor project, we want this to be a park, that it connects us, that it gives us space.

Ana M. Salazar: So ultimately like when that is talked about so much, already what you do is the community asks for it.

Aldo M. Hurtado: Of course.

Ana M. Salazar: But that was much lacking like of vision, but of course, like they have the frictions so cut off by every 4 years of mayoral term.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: I do not know if right now what is left with what of Cali 500 which I believe they are developing right now, I do not know how they are thinking about it in vision, uh how to manage to articulate the project to that.

Ana M. Salazar: And it is a city vision that everyone looks toward and continues to request.

Ana M. Salazar: That other cities have done, well.

Ana M. Salazar: Medellín, they have done it, yes.

Ana M. Salazar: That really is like maintaining that idea, not like the thousands of partial plans they have.

Ana M. Salazar: That we are already doing one thing, we do another, so we are growing on that idea.

Aldo M. Hurtado: Uh-huh.

Aldo M. Hurtado: Okay.

Aldo M. Hurtado: Let's see.

Aldo M. Hurtado: Let's see, if you could represent something of the initial initial proposal, like how would you make some change at this moment?

Ana M. Salazar: Well, one thing that was never like so clear because there was not, not even the mayor's office or even knew how the topic of the commuter train was going to be.

Aldo M. Hurtado: Okay.

Ana M. Salazar: If there had been more information at that time, we would have articulated something more real.

Ana M. Salazar: Or to be able that project that was done that managed to articulate something of that project.

Ana M. Salazar: But ultimately it was not so clear.

Ana M. Salazar: We made some proposals with information that we had to move forward with ourselves because obviously they said commuter train, uh, uh, a light train and the stops could be every 900 meters and that is it.

Ana M. Salazar: But there was nothing technical, a study, nothing.

Ana M. Salazar: So ultimately that well, left us like speculating a bit with that part of the project.

Aldo M. Hurtado: Of course.

Ana M. Salazar: And maybe that is why right now they are so disconnected, yes, because as there was nothing so clear either, well, what you have to do is start from scratch.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: And there came some people already with studies, well, they proposed some topics.

Aldo M. Hurtado: But then right now if the commuter train is done, there is no public space.

Aldo M. Hurtado: There is no public space, but you think that changed a lot of what.

Ana M. Salazar: Yes, obviously it is going to change and it can be something that asks for the other projects.

Ana M. Salazar: Because they have development, the stations, I believe, not the connection of the nodes like in public space, the station, but now they are left like those gaps between stations.

Ana M. Salazar: And they are going to be super separated.

Ana M. Salazar: It seems to me they are very separated and I saw one like already almost at Eighth Avenue, but they do not see that node, because the Green Corridor right now is almost like a train and just at that node that is already like entering downtown I also saw that there was no station, and then there is already one in the south, south.

Ana M. Salazar: Yes, there is, there are few, not many.

Ana M. Salazar: There is one downtown that is the one that, let's say, proposes a future line for downtown.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: I believe it is with a streetcar and from there the other one comes out which is for the airport.

Aldo M. Hurtado: Uh-huh.

Ana M. Salazar: But but obviously you have to then the transportation systems articulate with that train so they do not make the same route.

Ana M. Salazar: That they make like circuits.

Ana M. Salazar: Let's say the train, well.

Aldo M. Hurtado: Mhm.

Aldo M. Hurtado: Let's see.

Aldo M. Hurtado: This project, while you were reviewing it, did it leave you a lesson about decision-making for urban interventions?

Ana M. Salazar: Well, I learned many.

Ana M. Salazar: Many because really it was the first project like of that scale that we managed to do.

Ana M. Salazar: So all the learning is, Opus had already done something a little bit more of public space than we had.

Ana M. Salazar: Well, it had experience, but that gave us an experience like to the two offices of that scale.

Ana M. Salazar: More like in planning.

Ana M. Salazar: It was a very interesting job because we read the city very well, the workshops were successful at understanding it, at reading each piece, we got to know

the city a lot.

Ana M. Salazar: Well, obviously to me it helped because nowadays I have a reading of the city, I know what happens in each place, how it is articulated.

Ana M. Salazar: In terms of the Green Corridor, it's...

Aldo M. Hurtado: What exercises did you do to know the city better?

Ana M. Salazar: Well, walks, workshops, uh walks walking, and at that time we did not have as much access like to drones, for example.

Ana M. Salazar: It was not as common to have a drone that pull out and scan, for example.

Ana M. Salazar: Today it would be very good.

Ana M. Salazar: There were a series of photographs that were taken to us of topography.

Ana M. Salazar: However, we managed to have some things later, well, but not at that specific moment we did not work with anything about drones.

Ana M. Salazar: It was like if you had one, it was very rare.

Aldo M. Hurtado: Of course.

Aldo M. Hurtado: No, it is that well, it was also quite a while ago, right?

Ana M. Salazar: Yes, because it was in the 2000s. No, I do not remember.

Ana M. Salazar: 2010, no.

Ana M. Salazar: Ah, 2011.

Ana M. Salazar: It was in 2000, 15.

Ana M. Salazar: Like 14 or 15, yes, no, 15 was when we delivered.

Aldo M. Hurtado: Ah.

Aldo M. Hurtado: I was confusing a lot of dates because in my head it was like 2007, I do not know.

Ana M. Salazar: No, 2015 was when the competition

was.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: During 15 we developed it and we are delivering at the beginning of year 16.

Ana M. Salazar: Because it is that our Espacio Colectivo was officially born in 2012.

Aldo M. Hurtado: Ah, okay.

Ana M. Salazar: We had experience being independent, but the collective was born in 2012.

Ana M. Salazar: And those were the projects that helped us after creating the company.

Ana M. Salazar: Do you think that is one of the projects that also catapulted you?

Ana M. Salazar: Yes, also.

Ana M. Salazar: All the urban topic positioned us like with, especially like having been part of the city's vision.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: Or to be able to give an opinion, to be able to tell the project, discuss it.

Ana M. Salazar: Ultimately what I told you, for us it was like a sheet that is left so that on that one they continue writing like the history of the city.

Aldo M. Hurtado: Mhm.

Ana M. Salazar: It was like saying, come on, here there is this and people say, ah, well, you see, cool this, but we can change it here.

Ana M. Salazar: Like a first, a first mark so that they continue developing further down the line for anyone in the city.

Aldo M. Hurtado: Okay.

Ana M. Salazar: But like proposing that first part that you have to do it.

Aldo M. Hurtado: Mhm.

Aldo M. Hurtado: Yes, like giving that first step so that

others also have ideas.

Aldo M. Hurtado: And we ran out of questions.

Ana M. Salazar: Anything else you want to comment that you think I missed?

Ana M. Salazar: Well, surely already seeing the information, write me to be able to pass you the information from the document of the plan.

Aldo M. Hurtado: Okay.

Aldo M. Hurtado: Do I bother you if I write you literally now.

Aldo M. Hurtado: Or rather after.

Ana M. Salazar: No, now so that I remember right now.

****End of Interview****

Note: This transcription contains the totality of the content recorded in the audio file, without restrictions or limitations. All words, pauses, expressions and comments have been maintained as they appear in the original records.

8_b. Interview

Diana Mazo

ANNEX 1: INTERVIEW DIANA MAZO - REGIONAL TRANSPORT AUTHORITY (ART)

Date: October 3

Location: ART Offices, Cali

Participants: A. Salazar (Interviewer) and D. Mazo (Head of Economic Regulation, ART)

A. Salazar: I think the first one that was done.

D. Mazo: The executive summary of the Cistra pre-feasibility for the first section of the train.

A. Salazar: Mmm, from 2016 or 2019.

D. Mazo: 2019.

A. Salazar: Ah, okay.

D. Mazo: 2000, yes, 2019. And this that, that is, that the presentation is like a little bit of what we are going with the with the advanced feasibility, so this you see, we put it for the project.

A. Salazar: Great.

D. Mazo: This has a little bit of the whole project in general.

A. Salazar: Just so that it is clear and also joins in the recording, what a shame on you. Eh, I'm recording in the offices of the ART, Agency.

D. Mazo: Regional Transport Authority, Let's Move Region.

A. Salazar: I found something else and I did.

D. Mazo: There are several, there is the Land Restitution Agency, the Territory Renewal Agency, so yesterday we had to give it the surname Let's Move Region and we always use it as the long name for that.

A. Salazar: Ah, okay, then mobility.

D. Mazo: Uh-huh, Regional Transportation Authority.

A. Salazar: Ah, okay, okay, I was looking for something else. And your name is Diana more.

D. Mazo: Diana Carolina Mazo, head of economic regulation.

A. Salazar: Okay, with tuquita.

D. Mazo: Thank you very much. Welcome, then I'll tell you a little bit. That is the complete project of the commuter train. So it is in the framework of the southwestern region of Colombia, Valle del Cauca.

D. Mazo: One thing that appeared on the radar was like in 2019 with Cistra's advanced pre-feasibility studies, we began to see where this agglomeration is and there are 10 municipalities that make up these that you see here in yellow.

D. Mazo: Dagua, Florida, Pradera, Vijes, La Cumbre and the main Palmira, Jamundí, Jumbo, Candelaria and Cali. So, those that directly understand the commuter train project are four municipalities, Palmira, Jumbo, Cali and Jamundí.

A. Salazar: Hey, excuse me, the red net that appears there.

D. Mazo: Those are the departmental connection roads, such as the roads that are in charge of the department that allow us to connect with the north of the department and then to the main national network.

A. Salazar: Yes, okay.

D. Mazo: This is 2015 information, we do not have an updated mobility survey.

D. Mazo: We had an update within the framework of the train project on a regional scale and last year with Nidón we also updated the issue of intermunicipal trips and we

hope to be able to contract the study next year.

D. Mazo: We are making an inter-administrative agreement with Metro Cali, the Mayor's Office of Santiago de Cali, the municipality of Jumbo Jamundí to join forces and resources and contract the update of the survey and the transport model for Cali and the region.

A. Salazar: Of course.

D. Mazo: So basically what do we have?

D. Mazo: Functional and interdependent relationships in terms of work, housing, services between Cali and Jumbo, Palmira, Candelaria and Jamundí that force us to think of ourselves no longer in a single city, but in a region without necessarily being a metropolitan area.

D. Mazo: The AMZO was recently constituted, which is the metropolitan area of the southwest and is currently made up of Cali, Jamundí and Puerto Tejada, which is a municipality of Cauca, with whom we also have quite eh relations as well as notorious in terms of travel for work reasons.

A. Salazar: Yes.

D. Mazo: So we are already going to Cauca as well.

D. Mazo: I'm going to skip this one.

D. Mazo: I will also pass this on to you so that you have information about what planning instruments the project is framed in, it is a project of strategic importance for the region and it is in all the development plans from the Territorial Planning Plan of the department, the Territorial Planning Plan of Cali and the current development plans of the current presidents.

D. Mazo: Eh, the project is not only designed as an infrastructure solution, but has a slightly more global vision considering issues of gender, inclusion, reduction of social gaps and of course mitigation of climate change due to the externality of the transport sector and a commitment to the institutional component.

D. Mazo: So here part of what we hope to achieve with the project in environmental issues, part of the goals that the nation has in the Paris agreement is to replace the public transport fleet around 30% by 2030, so let's say that with the implementation of the project that is going to be 100% electric with catenary power we can also begin to make technological ascent of the routes Commuter train feeders.

D. Mazo: Eh, gender equality and social inclusion component.

D. Mazo: For the structuring of the pre-feasibility we have resources from the UK of the United Kingdom and they expressly requested that this component be included in.

D. Mazo: So in the structuring, we have considered what are those elements of gender and social inclusion that should then be included in the tender to guarantee access to women on equal terms in each of the different stages of the project.

D. Mazo: Likewise, in the design of the infrastructure, the issue of the population with reduced mobility is also being considered, the issue of additional trips made by women who are focused on the mobility of care.

A. Salazar: Aha.

D. Mazo: So let's say that all those elements are incorporating into the current project.

A. Salazar: Ah, I imagine that since there are so many health centers directly in Cali and most of them have to come to Cali for other interventions or.

D. Mazo: Exactly, we are like the main city in terms of health, because the hospitals.

D. Mazo: Yes.

D. Mazo: Jumbo, for example, has a more industrial vocation, Palmira has the airport and Jamundí today functions as our dormitory city, that is, all the supply of Bis and VIP housing is supplied today in Jamundí because there is greater availability of land, but it is also cheaper to buy housing in Jamundí than in Cali.

D. Mazo: And the same thing is happening to us in Jumbo, there are some important real estate developments with lower prices than in Cali, so people are migrating to these cities, but they continue to work in Cali.

A. Salazar: And also in Candelaria, right?

D. Mazo: Candelaria is also right on the edge of the metropolitan area.

D. Mazo: Exactly.

D. Mazo: Candelaria has also had significant growth in

terms of housing and we are already conurbated with Candelaria.

D. Mazo: The entire sector of Poblado Campestre, Ciudad del Campo, Villa Gorgona.

A. Salazar: And taking into account a little, let's say, the entire commuter train is being planned, but in that same buffer of the area where the train is going to pass eh or I don't know if it will be later, what would be then as the idea for that whole area where it is passing, let's say what is going to happen around it or what is what.

D. Mazo: On issues of redensification and urban renewal.

A. Salazar: Okay.

D. Mazo: So, this is what we think of as a strategic vision at the level of the 10 municipalities.

D. Mazo: This little line that you see blue with the stripes, because it is the corridor of the commuter train, as you can see, it does not have a direct connection to Candelaria.

D. Mazo: What are we proposing for Candelaria?

D. Mazo: A supply with what we have called the Integrated Regional Transport System and that is with feeder routes of intermunicipal public transport, to be able to take them from Candelaria to a point near the train station or the mass system of Cali that can finish the route in the other mode.

D. Mazo: And the same for the municipalities of the Cumbre Vijes that are not going to have a train directly, but to get to those municipalities we must, for example, cross Jumbo, so that the intermunicipal transport routes connect with the first Jumbo station and finish the trip on the commuter train.

A. Salazar: Yes.

D. Mazo: Eh, the same for Dagua, we are going to have a branch to the airport with the train and all the network of colors that you see here are the trunks of the massive system of Cali.

D. Mazo: Today Cali is also migrating from an integrated mass transport system to an integrated intelligent public transport system in which there will be not only mine, but conventional collective public transport through business collaboration schemes, the whole issue of feed-

ing the Ladera area with the guas.

A. Salazar: The guides also wanted to join the system for a long time.

D. Mazo: Aha, so to serve we only have a miocable line that reaches about three stops on the hillside, but the rest of the population today does not have a decent offer or integrated into public transport.

D. Mazo: So the idea is to move forward with the local management body and let's say that this is like our long-term vision in terms of transport.

D. Mazo: And I tell you in the long term, why?

D. Mazo: Because today we are only here with the commuter train in, it is not highlighted to me.

D. Mazo: We are here.

D. Mazo: From this section, it does not take out, from this section to Jamundí it is the prioritized section that we hope will come into operation in 2032, but we need to advance in the structuring to the north and east.

D. Mazo: So, I'm going to put this on silent.

D. Mazo: So, that's why for us it's like a long-term vision, but we understand that there are some actions that we can take now and it's part of what we've been doing with the mobility secretariats and Metro Cali to make physical complementarity for now and fares next month with the Jamundí routes.

D. Mazo: Jamundí and Puerto Tejada are now physically integrated into the Simón Bolívar station of mine, so mine allows the infrastructure to be used.

D. Mazo: He made some adjustments so that people who come from Jamundí can get off there and can integrate into the system and finish the trip within the massive system and it is expected to be able to give them a discount on the value of the ticket of 500 pesos starting next month.

D. Mazo: Eh, as part of the institutionality, which is the other component in which the project is working, then we managed to create ourselves as a territorial associative scheme, but also the regional management entity Citren, which will be in charge of the tendering, construction, operation and maintenance of the system itself.

D. Mazo: So, today we are a region of planning and management, because it was the only figure of the law that allows a department, a district and municipalities to be associated and we are in charge of the regulation of the part as strategic and the managing entity Citren is already in charge of the structuring of the project.

A. Salazar: Can you come back for a moment?

A. Salazar: Are those the different stages?

D. Mazo: This is what Cistra gave us about advanced technical prefeasibility.

D. Mazo: Actually we only have three stages.

D. Mazo: I understand that this is like the areas in which the project was going to be developed.

D. Mazo: We had two axes, which was the north-south axis from Jumbo, Cali and Jamundí and an east-west axis, Cali, Palmira and a branch to the airport.

D. Mazo: Eh, since we didn't have resources and the project was very ambitious, then what Cistra recommended in the pre-feasibility was to advance it in phases.

D. Mazo: So those phases were here.

D. Mazo: From the central station where the transport terminal and Cali Metro are located today to Jamundí and then continue to Jumbo to complete the north-south line and finally the section to Palmira and the airport in the second phase, in the third phase.

A. Salazar: Oh, well, and each section would be like.

D. Mazo: Like the units of action depending, what happens is that they have different behaviors according to the geographical area in which they are implemented.

D. Mazo: So, for example, all this is the expansion zone of Cali, but this is already Jamundí itself.

D. Mazo: So there we change jurisdiction, there are other guidelines, other regulatory issues and, for example, in the case of here we have the Santa Elena gallery, which also has slightly different implications, this is part of the southern zone, which also has different dynamics and to the north we also have the Jumbo expansion zone and here we have the entire Acopi industrial zone and as more other vocations.

D. Mazo: So I understand that in that sense the segregation was made, this is 100% interurban, here in reality there is only the Dolores side, which is like an important township and now the urban area of Palmira and this is all today without constructions, only the road.

D. Mazo: So, this is already like the layout of the project within the four municipalities, a little more detailed.

D. Mazo: So if you see, for example, Jamundí reaches only the urban area and does not cover all the developments that are already taking place in this area and Jamundí is mostly rural.

D. Mazo: So many of the partial plans and developments that are being presented in Jamundí are very far from the last train station and to that we must add that Jamundí does not have a formal offer of public transport, that is, they do not have routes or companies that are really providing the service there and it is part of what we have to redefine in order to supply that food to the system massive.

D. Mazo: And it crosses 10 of the 22 communes of Cali.

D. Mazo: So let's say that there we improved the coverage issues a little.

A. Salazar: But I understood that there may not be so many stations.

D. Mazo: Eh, there are a total of 21 stations, if you want to come, I'll move on to the feasibility, which is the one that is already how the phases are defined.

D. Mazo: Each little line was like the phases proposed by Cistra, so it was either to start with Jumbo to the Universidad del Valle, more or less or from the central station to Jamundí and this was, let's say, the section that was selected using a multi-criteria analysis methodology in which experts from all over the region were invited to participate in the weighting of their criteria.

D. Mazo: And the last stretch has always been Cali Palmira.

D. Mazo: In other words, it was not only as a demand that the corridor was chosen, but other components were taken into account such as the availability of the corridor, towards Jumbo we had a conflict because there was already a concession for cargo operation and that was in force until 2030 and to reverse that concession the government the national government was demanding that within the framework of the project then the cargo variant be built and that's because let's say that it added some additional costs to the project.

D. Mazo: Eh, why didn't it happen?

D. Mazo: So, this is how we are going now.

D. Mazo: We are currently in the structuring of the fea-

sibility, we are already waiting for the technical endorsement and the fiscal endorsement.

D. Mazo: The minister made some statements a couple of weeks ago saying that we are going to have a co-financing agreement this month, that is, that the resources of the government of the national government for the project are uh, let's say, as assured and there is support from the national government for the project.

D. Mazo: So we're there, we're thinking about this.

D. Mazo: So what I told you at the beginning, that we consider the project not only as an infrastructure, but as a long-term solution.

D. Mazo: So among the benefits that we see is first because the project is going to boost the economy in the region because of all the development issues around the transport infrastructure, but also because it promotes renewal and redensification along the corridor.

D. Mazo: Cali, for example, today has in its current land use plan that until the green corridor, the transport solution, is built, high-rise construction is not allowed.

D. Mazo: So today all the construction is frozen at two floors, but up to five floors are allowed, that is, from three to five you can build it when the implementation of the project arrives.

D. Mazo: This is in order to generate the capture of land value for the development of the project.

A. Salazar: Ah, that's it.

A. Salazar: Yes, the entire strip of two little flats around it.

D. Mazo: Exactly.

D. Mazo: So that will allow urban development, we are guaranteeing that intermodality is promoted with stations that have park-and-rides, that have parking for bicycles, thinking about the issue of the last mile or the first mile to connect these areas that are more developed away from the corridor, see how we integrate them, but also with support infrastructure such as modal exchange centers or intermodal service centers.

D. Mazo: That is a little bit of the methodology of how the north-south section was selected.

D. Mazo: So look, the criteria that were taken into account not only demand, but also the environmental impact, the potentials for urban development and renewal, integration, the costs of both investment and operation, the complexity for the implementation of the section, issues of vulnerability and flooding and the impact on property because part of the corridor is occupied or is invaded and it is time to make the recovery.

A. Salazar: Yes.

D. Mazo: So like that.

A. Salazar: Yes, I saw that they were looking at all the junkyards there are and the entire location.

D. Mazo: Yes.

D. Mazo: So there are, for example, some fields, there are houses towards Jamundí, there are parking lots, there is the whole issue of the Santa Elena planchón.

D. Mazo: So let's say that all of this is quantified and estimated in the project, we have to make a schedule for the clearing and release of the corridor, so the Mayor's Office of Cali has been working on that mainly with the accompaniment of the managing entity, because the commitment is that when the tender arrives before construction, The runner must already be fully freed.

A. Salazar: Which one is from the mayor's office, who are in charge?

D. Mazo: Planning.

D. Mazo: The Administrative Department of Planning is the one who leads the project within the mayor's office.

D. Mazo: There is Claudia Sandoval, who is like the liaison for the project with Citren and the other entities, but there is a support team.

D. Mazo: So there are professionals directly linked to the project, but also the legal accompaniment, the contracting of the Ministry of Government, Social Welfare, that is, it is like a comprehensive project within the mayor's office, but it is led by planning.

A. Salazar: Ah, okay.

A. Salazar: Mostly to know who I'm going to interview.

D. Mazo: Right now I can give you Claudia's contact.

A. Salazar: Oh, yes, super.

D. Mazo: She has the whole project in her head because she has been leading it for a while.

D. Mazo: So, the prioritized section is 23 km, we have a total of 21 stations, 18 in Cali, three in Jamundí and of those 18 in Cali 11 have physical integration with the massive system of Cali.

D. Mazo: From the central station located there on 62nd to the south they share the corridor, so the mass trans-

port infrastructure is designed considering the circulation strip for the train and what is done is to use the platforms that are already built by the system.

D. Mazo: The typology was defined as a tran train, it works as an urban tram and a commuter train in the interurban intermunicipal area.

D. Mazo: Eh, it is going to be 100% electric power and let's say that those are like the areas that are intervened with the project, 10 communes, uh two rural sectors and the expansion area and part of the urban area of Jamundí.

D. Mazo: Eh, the track in terms of infrastructure because it was defined that it is going to be a standard track.

D. Mazo: I don't know if you know that part of the railway infrastructure in the country works with yard-gauge gauge, which is a little narrower, but the availability of rolling stock is more expensive, because it is almost custom-made.

D. Mazo: So let's say that it doesn't make sense and that the current projects are being done on a standard gauge, so that's why it's defined that we're going to use the same one.

D. Mazo: We are going to have two viaducts, one in Cali and one in Jamundí.

D. Mazo: In Cali at the height of Carrera 50, there the route rises to fall to the Simón Bolívar terminal, because there we have some issues of settlements and irregular housing.

D. Mazo: And in Jamundí at the height of Alfaguara because when the roundabout was built, which was the construction company's session, the project was not taken into account and they used the space where the station was planned at the pre-feasibility level and made a road roundabout.

D. Mazo: So there it was also time to raise it to be able to pass the project.

D. Mazo: Eh, the project is contemplated to be at the level with traffic light priority, but we are going to have 10 bridges eh 10 railway bridges over riverbeds mainly and a depressed at the height of the eighth race because today we already have a depressed road, so we have to depress it to be able to make the bridge for the train.

D. Mazo: Eh, they are thinking that we will have trains passing every 6, 7 minutes eh there are 40 single trains including the reserve and they expect to mobilize 1000 passengers per coupled train, that is, the capacity of each train is 500 passengers and two are coupled as two wag-

ons in a single train to operate and we hope to move in the first year about 45 million passengers.

D. Mazo: This was structured in the same way as the massive system in Cali where the risk of demand is the State's, it is the public's, so it is up to us to guarantee compliance with the demand.

D. Mazo: Oh, well, and due to the weather conditions it is expected that the project will have the rolling stock to have air conditioning.

D. Mazo: That is still being reviewed because we understand that since the power supply is electric, let's say that it generates greater consumption, so they are validating with the service providers the energy availability for it.

D. Mazo: That is like the location of the stations, we are going to have a main workshop yard at the height of Conface to the south, that is still land as Cali's suburban and the location from north to south of the 21 stations.

D. Mazo: So here we have 14 km in the urban area, 6 km in the rural area and there are 11 stations, especially in this section integrated into the massive system of Cali.

D. Mazo: Benefits of the project, then reduction of travel time by about 33%, and job creation of around 14,500 between direct and indirect, urban renewal potential to build around 167,000 m² of additional buildable area.

D. Mazo: Hmm, what I mentioned about the participation of women in all phases of the project.

D. Mazo: Reduction of emissions of about 1.3 million tons of CO₂ in the first 10 years of operation of the system, improvement of the quality of life, reduction of accidents and fatal accidents around 1280 fewer accidents and about 41 lives saved with the implementation of the project.

D. Mazo: And this is like what we have left, we are in this. D. Mazo: We are here waiting for technical endorsement and fiscal endorsement.

D. Mazo: These documents have been filed for a long time and all the observations of the Ministry have been corrected and we must sign all this, the co-financing agreement, the future validities and everything before November 8 because the law of guarantees arrives.

D. Mazo: It is a fairly ambitious schedule, but let's say that what we lacked was the endorsement of the Minis-

try and the minister already gave the statements a couple of weeks ago, so let's say that this kind of activated again the implementation of future validities, especially of the territorial entities because that goes through the approval of the Council and the assembly.

D. Mazo: Eh, the Compes document has already been reviewed with the DNP and the co-financing agreement is also being reviewed, so let's say that part of these steps that are here, have already been advanced so that we already have the technical and fiscal endorsement, so we can move forward in the subscription of the Compes, which is a document that is already more advanced.

D. Mazo: And we hope to start the tender next year, pre-specifications in approximately March and have the opening of the bidding process between, sorry, between July and August to award the contract at the end of the year and there are a total of 16 months of pre-construction for the whole issue of detailed designs and then 36 months of construction, I think and 6 months of white march.

A. Salazar: Everything to see if it can be adjusted to 2030.

D. Mazo: 2032, by the end of 2032 the operation would begin.

A. Salazar: Yes.

D. Mazo: We still have a little bit to do, but here we go.

A. Salazar: Before that, at least they are going to start doing them.

D. Mazo: Before, I was already making more progress.

A. Salazar: Already advanced.

D. Mazo: Yes.

D. Mazo: This is what we are missing?

D. Mazo: So there is the feasibility of the other two sections from the central station to Jumbo and to Palmira.

D. Mazo: The territorial entities are managing cooperation resources, especially for the Cali Jumbo section to complete the north-south line.

D. Mazo: We do not see it as feasible for the studies to be carried out for now for the Cali Palmira section because of the availability of resources and because with the resolution of the Ministry for the co-financing of the nation-

al government, the studies would lose validity, because if the transport model is only about 5 years, then there is no point in making the investment in a study now if we do not even have guaranteed the resources to the Jumbo.

A. Salazar: Of course.

D. Mazo: So we see that there as still in the medium term.

D. Mazo: And the structuring of the Integrated Regional Transport System, which was the scheme that I presented to you at the beginning, we are working on that hand in hand with the international cooperation agencies and later when the issue of implementation arrives, because the managing entity will be given the competence so that it is also the managing entity of the Integrated Regional Transport System.

D. Mazo: This is already like what we have already seen.

D. Mazo: Ah, well, this is Cali Jumbo, lie.

D. Mazo: Pre-feasibility data 2019, this will have to be updated with the feasibility, it is 14 km.

D. Mazo: There the route is shared with cargo, in fact Jumbo today within the update of the Territorial Planning Plan is incorporating a third lane for cargo because Jumbo is an industrial area especially in terms of logistics.

D. Mazo: So they are thinking in their planning instrument that the train is not only for passengers, but also for cargo and to have an eh station that allows a development intervention aimed at transport for housing, but another for industry, such as free zones and that.

D. Mazo: So there we are articulating with the teams that are formulating the land use plans because all our municipalities are also in the same process.

D. Mazo: Jamundí is moving from the basic planning plan to a territorial planning plan, Cali is updating the POT, Jumbo is in the same process and Palmira is also in the same process.

A. Salazar: More or less when do you think we are finally going to have the POT in Cali?

D. Mazo: Eh, they have to deliver the formulation this year.

A. Salazar: Yes, I heard it before I went to Italy and the same thing.

D. Mazo: Last year the diagnosis was already made.

D. Mazo: What happens is that I think it tells you the sanction that the ruling of the Attorney General's Office that ordered the municipality, well, the district to prepare the territorial planning plan in about 30 months and last year they advanced in the diagnosis and they are already working on formulation.

D. Mazo: We don't know exactly what it's going on, we have a meeting with the Cali team next week to see exactly how the formulation is going in the components of mobility and value capture and development oriented to transport.

D. Mazo: Eh, the most advanced of the municipalities is Jumbo.

D. Mazo: Jumbo is already in agreement with CBC, at this time they are in a suspension of the review because the CBC asked them for additional studies that take about three months to finish.

D. Mazo: I think it's been a month since the suspension and Jumbo's idea is to reactivate it this month and that they are like the ones who are more advanced in the schedules.

D. Mazo: Jamundí also has an almost closed diagnosis and formulation.

D. Mazo: We learned part of what they are proposing that the boy came to make to us as the presentation and we are supporting them with the identification of within the stations and that it is also up to them in the instrument how they can apply the capture of land value for development projects aimed at sustainable transport.

D. Mazo: In fact, we have, that was the meeting that was being arranged before you arrived with the Ministry of Planning because we have a consultancy with the IDB and an expert in land value capture to tell us how those articles should be incorporated into the management plan that when they want to materialize, Well, we have the normative support for it.

D. Mazo: And we are doing the same with Palmira, but Palmira is one of the four, I think it is the one that is a little further behind with the issue of the POT.

A. Salazar: I had heard that and also with the same commuter train as it was.

D. Mazo: Yes, then it was more slowed down because let's say that it is like the last phase that is contemplated of the project, then and now they had an income from the airport surcharge that had been created in the previous administration on the occasion of the commuter train project and they were like resources for the project, but that worked while the airport concession was in place.

D. Mazo: The airport had a concession until August 30 and right now the Aerocivil has it, it will have it for about a year, a year and a half, so let's say that Palmira no longer has that source of resources today and with that it was subsidizing the fare of the Palmibus, which is public transport.

D. Mazo: So they are there as if looking for another source to maintain the subsidy and cooperation resources to structure the strategic public transport system.

D. Mazo: It's like what Palmyra has been advancing.

D. Mazo: So this is a little bit of the data of the project, it has 29 km, it will have about three stations and a secondary workshop yard.

D. Mazo: And here we have uh like all railway projects.

D. Mazo: Eh, if you know there is a project of the national government that is the Pacific train, the Pacific railroad.

D. Mazo: He was initially thinking as a burden, already in the last meetings he spoke that it was going to be mixed and they are going to build a variant for him so that he does not go through Cali, but connects through Jumbo and continues but he comes from here from Buenaventura.

D. Mazo: So the idea is that it passes through Jumbo and continues towards the national network so as not to pass through Cali.

A. Salazar: Of course, taking advantage of the fact that there is already going to be the other network.

D. Mazo: Mhm.

D. Mazo: The project also expects a 23% reduction in intermunicipal public transport.

D. Mazo: We have already had meetings with the intermunicipal transport companies because the idea is that those 23% supply that would be left over, let's say, can be used to feed the train in Jamundí that we do not have public transport.

D. Mazo: So there we also have to do a procedure with the National Ministry to change the scope and move them from intermunicipal routes to urban routes.

D. Mazo: So let's say that we have identified the steps to follow and we are waiting for the project to be a little more mature to be able to move forward on these restructuring issues.

D. Mazo: And then what follows is like some specific topics that we had for that presentation of how the change of mode with the project is going.

D. Mazo: And hey, well, we already saw that in the previous one, type of train.

D. Mazo: No, because we always tell people, don't think that this is a bullet train, because it was coming there, no, that train is going slowly, it is going slowly because it is going through an urban area, so it is not a train like such a high speed.

D. Mazo: We are also working on a strategy to position public transport, a communications campaign taking advantage of the quarter of an hour of train and to take it as that umbrella, but not only talk about train, but about all public transport in the region to be able to dignify it and that people want to ride public transport, that is, that we begin to change the idea that only riding in a car is a synonym of status and that those who go by bus are the ones who have the lowest socioeconomic strata.

D. Mazo: So we are structuring a communications campaign with the Ministry of Mobility, we have had meetings, for example, with the people of Metro de Medellín to see how the metro culture works and to prevent what happens to us in Cali with the massive system from happening.

CONTINUED - Other actors involved

A. Salazar: No, what other actors do you think are involved at this time? In other words, you had mentioned to me that at this time there is planning, there is also a committee within the framework of the project in the contract that I established a technical monitoring committee.

D. Mazo: In that technical committee there is a representative of the Secretariat of Infrastructure of the department of Cali planning, planning and Citren and there is a delegate from the FONDE, because for the structuring of the feasibility the national government through the

Ministry of Finance and the Ministry of I don't know which, they put about 25000 million pesos, so we have a delegate from the Ministry of Finance and a delegate from the Fund and there is the FDN, which is the technical structurer.

A. Salazar: Okay.

D. Mazo: They are, let's say, like the ones who review all the documents and are in charge of attending to the Ministry's requests and approving. In Cali, in addition, it goes through a review of either the Treasury, infrastructure, citizen participation and social welfare depending on the components that have to be reviewed. So there is like an internal technical team that is led by Claudia to address the different components that are arriving from the project.

A. Salazar: Mmm, okay. That's it.

End of interview

Note: This transcript contains all of the content recorded in the audio file, without restrictions or limitations. All words, pauses, expressions and comments have been kept as they appear in the original records.

8_c. Interview / Meeting

SITREN + Planeación Cali + Santa Elena (incharge Architect) + Technical Engineer.

ANNEX 4: MULTIPLE MEETING - SITREN + PLANNING + SANTA ELENA

Date: November 2025

Topic: Santa Elena Project Presentation - Special Management and Protection Plan

Participants:

- A. Salazar: Interviewer - Thesis student
- Technical Engineer: Project Specialist
- María Fernanda: Architect in charge of the Santa Elena project (Cali Mayor's Office)
- C. Sandoval: Claudia Sandoval (Administrative Department of Planning)

The executive summary document an academic-institutional meeting where A. Salazar (Author of this thesis) seeks to contrast a student exercise using the Strategic Choice Approach and urban acupuncture with the official Stakeholders and professionals working in the TCV project. However, the meeting turns into a Exposition of the Santa Elena Special Management and Protection Plan (PEMP) being led by the Mayor's Office of María Fernanda: Architect in charge of the Santa Elena project

Thesis focus and student exercise:

A. Salazar frames her thesis around the Strategic Choice Approach as a way to navigate “a sea of uncertainties” in urban decisions, where planning helps to “reach the goal” despite conflicts and pressures. She explains that the method lets decision-makers “identify them, name them and try to see how with different possibilities, what could happen with those uncertainties and that there is progress.”

With students from Javeriana and San Buenaventura, she applied this method to the Santa Elena-commuter train corridor, asking them

to classify “domesticated problems,” “critical” problems and “the evil ones that are these complicated problems that usually arise in everything that is planning, architecture.” They also explored uncertainties about values, lack of information, interdependent decisions, and disruptive events “such as an earthquake or any of the strikes that happen in Cali all the time.” Students mapped decision graphs, generated options for each issue (e.g. turning the canal into green public space, paving it, adding roadways, commerce or parking), and tested compatibility between options to build coherent solution schemes. Salazar notes that the results were often “very, very imaginary, too idealized,” including proposals like “that the passage of the subway be made, then also generate the same underground station,” and asks the municipal team to “counterfeed what the boys had done.”

Her thesis proposal is to take this decision-making scheme and “combine it with urban acupuncture,” defined as using “small pressure points, as in medical acupuncture itself... where there is a union that expands in the branch of the city... without having to do a whole major

reform,” emphasizing advantages in time, costs and “a greater impact on the identity of the people who are in the place.”

Institutional concerns and expectations:

The technical engineer underlines the need to align academic proposals with real projects: “we are suddenly worried that we children will be very idealistic... and we will begin to obtain results that are not very achievable.” She stresses that Santa Elena is “another large parallel project that tied up train, it is not independent... they are very close, but they are independent issues and they are going to be handled independently,” so mismatches between university visions and actual plans could “show a not so accurate idea of what is going to happen.”

The team suggests that the best contribution they can offer is precisely this contrast: “Either... should be more or less the counter-feedback that we can give you to the exercise that was brought forward.” Salazar agrees that the second option—systematic feedback to the students’ schemes—is “a little more useful to me.”

Claudia Sandoval reinforces the robustness of the official project, noting that the Santa Elena Plan “was presented at the Ibero-American Hall of Architecture and Urbanism 2025... it was the winner in the participation of urban planning and regional planning,” and that this recognition shows the plan is “structured and cemented with solid foundations towards what the community and... the sector requires.”

Santa Elena PEMP: instrument, vision and scope

Architect María Fernanda presents the PEMP as “an instrument that is regulated at the national level by the law of culture... to protect heritage

assets,” applied to the Santa Elena market, “a building from the late 50s, early 60s... designed by the Spanish-Mexican architect Félix Candela,” located “in the geographical center of the city of Cali.” She stresses that the plan must define the building’s relationships “with the heritage, with nature, with the material, with the environmental conditions and also with the population, with the people.”

The PEMP was developed in four stages—preliminary information, diagnosis, comprehensive proposal and implementation—with citizen participation as a legally required transversal axis “from the beginning zero to the end and until the implementation.” Workshops were held with merchants inside and outside the gallery, residents, community action boards and institutions on mobility, public space, heritage, environment and socioeconomic dynamics, including sessions on diagnosis results, vision, objectives and program definition.

The resulting vision states that “we are all a Santa Elena, the market of flavors and continue to make the future, in the future the meeting place where through the recognition and protection of its history, their traditions and their memories... the voices of all are heard and agreements are reached.” Santa Elena should be “a space where its population is socially and economically strengthened... healthy, accessible, friendly... connected to the city and the region... being an example for Cali and the country as a centrality of safe, orderly and sustainable supply, with the heritage square as a cultural, commercial and tourist attraction.”

From four structuring problems, four general objectives are defined:

“Protect the heritage, material and intan-

gible values of the square and its surroundings.”

“Consolidation of the urban sector with physical-spatial interventions.”

“Manage the necessary administrative actions to be able to coordinate and the subsequent implementation.”

“Implement the actions required for the satisfaction of the needs of the population and the optimal development of economic activities,” explicitly emphasizing that understanding the territory means understanding “the social dynamics that happen there.”

Urban strategy, “acupuncture” projects and phasing

Spatially, consultants distinguish the gallery block (block 26) as the affected area and a broader “area of influence” that now includes parts of the Jardín neighborhood across the historic railroad, recognizing that new commercial dynamics are already transforming façades along Calle 25. The influence area is given conservation level 4 (“new construction can be done”), while the gallery block has conservation level 1 with strict heritage requirements.

María Fernanda outlines a set of major urban projects:

Project B (traditional market strip next to the green corridor): integral recovery of the gallery, including addressing informal hydraulic and electrical connections (“one of the most complicated internal problems”), clearing the meat pavilion to “recover this space” and freeing the building, and constructing two support buildings to absorb commerce and storage that cur-

rently overflow into public space. She shows a rendering where “here it would be a clear square, a suburban train station and a clear building.”

Project A (open-air trade strip): a response to current practice where commerce “is in the street, it’s in the public space” and shopkeepers “go out to the platform... to sell.” Consultants propose to “open the blocks, open block centers and generate pedestrian commercial passages” and “distribute [street commerce] inside those blocks in the public space, making economic use of the public space and organizing all these commercial dynamics.” She explicitly connects this to the student’s framework: “This is part of the concept that you were talking about just now about urban acupuncture. This project was designed as urban acupuncture, specifically the strip of open-air commerce.”

Project D (logistics platform): designed because Santa Elena “has been gradually losing its residential area due to the expansion of commercial activities” and many buildings “have become wineries.” A closed logistics platform for warehouses and wholesale activity is proposed, while Project C (housing strips) around it seeks “to continue giving the possibility of housing... [so] we are not going to degenerate only an issue of commerce” and to “contain all commercial activity, that it does not continue to expand uncontrollably.”

The plan adopts a 12-year horizon aligned with the POT: “the short term, which would be the first 4 years... the medium term would be 4 more years... and the long term would be the remaining 4 years until completing the 12 years.” In the short term, priority is “the comprehensive recovery of the gallery building... the heart of this whole plan,” in parallel with property pro-

cesses for the logistics platform. Medium-term actions include building support structures, implementing open-air commerce projects, continuing property consolidation and starting the first housing strips; long-term goals are to complete housing and logistics, consolidate public space and finalize the connection with the commuter train.

María Fernanda emphasizes that these times may change because “we know that it is a very complex project and many uncertainties may arise along the way, especially in terms of property acquisition, which is one of the most complicated issues.” Salazar notes that students independently concluded the project should be phased, and that “it could not be done all at once,” which María Fernanda confirms: “when you have a project as broad and as complex as this, you have to do it in phases.”

Information sharing and academic value:

Because the PEMP has not yet been adopted, “much of that information is sensitive... there are certain things that are under confidentiality until public socialization is made,” but María Fernanda offers to send a draft presentation “marked... in draft,” clarifying that the formal adoption will occur via a mayoral resolution after final adjustments and public presentation. Salazar stresses that “this meeting is super important for my thesis” and that she sees “many things that... you were writing you were also answering and it is very related to the objectives or the design things that the children were doing during the workshops.”

The municipal team expresses willingness to continue supporting her research, while also using the dialogue to ground academic ideas in institutional realities and award-winning planning practice.

8_d. Survey 01 translation

Group	University Semester	How useful has this workshop been for you?	In what way has this workshop been useful?	What did you like most about this workshop?
Javeriana	8	5	Allows a systemic process to understand a problem	Visualize the different ways of approaching a problem.
Javeriana	7	5	To be able to evaluate the situation of an area of the city where I currently live and develop	To be able to identify a problem and the different actors involved
Javeriana	8	4	Gives me strategies to make decisions by evaluating different aspects and relationships	That they present us with different methods to do the same step and one can choose which is most useful or they like best
Javeriana		4	On how to methodize? Problems and their possible solution options	That we could interact and differentiate between the work of some colleagues and ours
Javeriana	7	4	For decision making and the delimitation of a problem	The use of the Miro platform
Javeriana	8	4	I discovered new methodologies for effective decision making	I liked that there are different possibilities to do each step
Javeriana	7	5	providing knowledge on how to obtain information and how to manage it	The dynamic, which was like cooperative work
Javeriana	8	4	it was very useful when discovering new strategies and tools for decision making.	I liked the decision methods shown and the techniques for discovering all possible comparisons to draw from a problem
Javeriana	7	5	It taught me to look at a project or a process from a point beyond design, how each character thinks each characteristic simplifies a project process, who and how they are involved and how these characters bring important factors to the table to take into account	it made me understand important topics in a process, in this case, the green corridor, dynamically. Giving us the power of the class participating and understanding from a personal point.
Javeriana	7	4	In decision making and hierarchizing or prioritizing according to the objective of the project or the ways it can impact	the methodology of categorizing and different schemes to be able to focus on something objective since when talking about urban planning, it is so integral that one thing has to do with many others
San Buenaventura Monday	5	4	To think further about the entire process necessary to be able to make the best decisions to different problems.	The interactivity between students and teachers.
San Buenaventura Monday	5	5	well, it helps to make the project more systematized	there were many ways to do the exercises
San Buenaventura Monday	5	4	Learn something new	decision making in different methods
San Buenaventura Monday	5	4	I learned new strategies to analyze problems in architecture and decide with more criteria.	Working in a group and listening to different perspectives before deciding.
San Buenaventura Monday	5	4	analysis of urban projects	dealing with issues in our city
San Buenaventura Monday	5	4	I learned ways to organize my ideas and projects	How a clear process helps to make better decisions.
San Buenaventura Wednesday	5	5	Know and explore my way of solving urban problems and proposals	That it was very didactic and like a "staging"
San Buenaventura Wednesday	5	5	I learned to look at cities and large facilities in a different way and urban planning will help me a lot to understand problems	Everything
San Buenaventura Wednesday	5	4	to make projects more systematic	there were many ways to perform the exercises,
San Buenaventura Wednesday	5	5	I have learned a new form of organization or decision making for the start of a project	The dynamic
San Buenaventura Wednesday	5	4	PARTICIPATE IN DECISION MAKING	INTEGRATION WITH THE PLATFORM
San Buenaventura Wednesday	5	4	we saw many ways to make better decisions	we could see the different opinions of our colleagues, everyone has a very different priority when starting a project,
San Buenaventura Wednesday	5	4	Tools for decision making	Interact with the class and learn something new
San Buenaventura Wednesday	5	5	It was useful for learning to organize ideas and make decisions based on relationships and context.	The use of different platforms and AI

What did you like least about this workshop?	What would you have done differently in the workshop?	Present your ideas for discussion	Recognize that there are different points of view on the transformation.
The difficulty in understanding the variables that need to be taken into account when a project is fully implemented.	It is not a problem of the workshop, it requires a lot of prior research to address it, at least a thematic expertise. As an exercise it is very interesting.	Completely agree	Completely agree
Failure in group communication due to virtuality	Do it in person	Neutral	Agree
So far I haven't disliked anything	I would continue to do it the same.	Agree	Completely agree
That Miro moved a lot and I got lost	This is fine	Agree	Completely agree
The attitude of the other participants	Have a little more time to be able to understand the procedure	Neutral	Agree
Sometimes there are too many steps that the workshop becomes confusing	Look for a different way to explain everything because it is difficult to understand some concepts or what to do in some steps.	Completely agree	Completely agree
that there was very little time to be able to cover the whole topic calmly	nothing, I feel that it was fine this way	Agree	Completely agree
What I liked least was that some parts of the process felt a bit fast, and I would have liked to have more time to discuss the results of the comparisons in a group.	I would have incorporated more examples of real cases and seen how they work in different contexts.	Completely agree	Completely agree
virtual hours, we could not have an approach as in other spaces	more time	Completely agree	Completely agree
the theoretical can get to tangle the decision-making methodology a bit	.	Agree	Completely agree
The complex connection of the platforms.	Perhaps involve more topics related to the world of architecture.	Completely agree	Completely agree
Miro failed a lot	do everything on the board	Agree	Agree
0	more discussions	Agree	Agree
Some moments felt a bit rushed.	I would have planned a final session to reflect on what was learned.	Agree	Completely agree
connectivity for the platform	develop it over more time	Completely agree	Completely agree
There was a lack of more support when structuring the ideas.	I would have done more individual exercises to reinforce the way of organizing ideas.	Agree	Agree
The platform	Generate another problem	Completely agree	Completely agree
everything was excellent	Change positions	Completely agree	Agree
Miro	use the board more like the last day	Agree	Completely agree
nothing	It would have been great if it had been more participatory on the part of my colleagues	Agree	Completely agree
DIFFICULT CONNECTION WITH THE PLATFORM	MORE TIME	Agree	Agree
I would have liked more time	more examples, not only about the green corridor but also as examples in architectural projects to use in the studio	Completely agree	Agree
nothing	do it with more time	Completely agree	Completely agree
sometimes it took a long time to advance	I would try to incorporate more real examples or urban cases closer to our daily experience.	Completely agree	Completely agree

In generating better ideas and options for the transformation.	Change your opinion on what should be done.	Think and/or propose more creative solutions	Learn more about the problems surrounding the context of decision making.	Challenge old concepts or ideas regarding the transformation of the Green Corridor.
Completely agree	Completely agree	Completely agree	Completely agree	Neutral
Completely agree	Disagree	Agree	Completely agree	Completely agree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Agree	Agree	Agree	Completely agree	Agree
Agree	Disagree	Agree	Completely agree	Disagree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Agree	Agree	Agree	Completely agree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Agree	Agree	Agree	Agree
Agree	Agree	Neutral	Agree	Agree
Agree	Neutral	Neutral	Agree	Neutral
Agree	Completely agree	Agree	Completely agree	Completely agree
Agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Agree	Completely agree	Agree	Completely agree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Completely agree	Agree	Agree	Completely agree
Completely agree	Agree	Agree	Completely agree	Completely agree
Agree	Completely agree	Completely agree	Completely agree	Agree
Agree	Agree	Agree	Agree	Agree
Completely agree	Neutral	Completely agree	Agree	Agree
Completely agree	Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Neutral	Agree	Completely agree	Completely agree

In focusing on the main aspects of the decision-making	Think more clearly about realistic options for the transformation of the green corridor	The workshop focused on the main aspects of the decision-making.	The purposes of the workshop were clear
Completely agree	Completely agree	Agree	Completely agree
Completely agree	Completely agree	Completely agree	Agree
Completely agree	Completely agree	Completely agree	Completely agree
Agree	Agree	Agree	Agree
Completely agree	Completely agree	Completely agree	Completely agree
Agree	Completely agree	Agree	Agree
Completely agree	Agree	Completely agree	Completely agree
Completely agree	Completely agree	Agree	Neutral
Completely agree	Completely agree	Neutral	Agree
Completely agree	Completely agree	Agree	Agree
Completely agree	Completely agree	Agree	Agree
Agree	Agree	Agree	Agree
Completely agree	Neutral	Completely agree	Agree
Completely agree	Completely agree	Agree	Neutral
Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Agree	Agree	Completely agree
Completely agree	Completely agree	Completely agree	Completely agree
Completely agree	Completely agree	Agree	Completely agree
Agree	Neutral	Agree	Completely agree
Completely agree	Agree	Agree	De acuerdo
Agree	Agree	Agree	Agree
Agree	Neutral	Agree	Agree
Completely agree	Completely agree	Completely agree	Completely agree
Agree	Agree	Agree	Neutral

Discussions during the workshop were clear, open and free	The problems became more complex than necessary.	My opinions were not heard	Participants worked very well during the workshop
Completely agree	Disagree	Completely disagree	Neutral
Agree	Neutral	Completely disagree	Disagree
Completely agree	Completely disagree	Completely agree	Disagree
Agree	Agree	Agree	Agree
Agree	Completely disagree	Completely disagree	Neutral
Agree	Disagree	Completely agree	Disagree
Completely agree	Completely disagree	Completely agree	Completely disagree
Agree	Completely agree	Completely disagree	Completely agree
Completely agree	Neutral	Disagree	Agree
Completely agree	Completely agree	Disagree	Completely agree
Agree	Completely disagree	Agree	Disagree
Agree	Disagree	Disagree	Agree
Completely agree	Neutral	Disagree	Neutral
Agree	Completely disagree	Completely disagree	Agree
Agree	Neutral	Completely disagree	Neutral
Completely agree	Disagree	Disagree	Agree
Completely agree	Neutral	Completely disagree	Completely agree
Completely agree	Agree	Agree	Agree
Agree	Disagree	Disagree	Agree
Neutral	Agree	Disagree	Neutral
Agree	Agree	Disagree	Neutral
Agree	Disagree	Disagree	Agree
Completely agree	Agree	Disagree	Completely agree
Agree	Disagree	Disagree	Agree

I did not have enough information to be part of the workshop	I felt pressure to agree with the group	Important problems were ignored/rejected during discussions in the workshop	If in the previous one you selected agree or completely agree please describe the situation and the problem
Neutral	Disagree	Disagree	N/a
Disagree	Disagree	Disagree	
Disagree	Disagree	Disagree	
Agree	Agree	Neutral	
Disagree	Disagree	Disagree	
Disagree	Disagree	Disagree	
Completely disagree	Completely disagree	Completely disagree	
Disagree	Completely disagree	Completely disagree	
Disagree	Disagree	Completely disagree	
Agree	Disagree	Completely disagree	
Disagree	Disagree	Disagree	
Agree	Disagree	Disagree	Disagree
Disagree	Completely disagree	Completely disagree	
Disagree	Completely disagree	Completely disagree	
Completely disagree	Completely disagree	Completely disagree	
Disagree	Completely disagree	Agree	.
Completely disagree	Completely disagree	Completely disagree	
Disagree	Agree	Agree	Disagree
Disagree	Disagree	Disagree	
Disagree	Neutral	Neutral	
Disagree	Disagree	Disagree	
Disagree	Completely agree	Completely agree	
Disagree	Disagree	Disagree	
Disagree	Completely disagree		

8_e. Survey 02 translation

Group	University Semester	1.1 Most Influential Factors	1.1 Brief Explanation	2.1 Main Problems/Categories
Javeriana		Uncertainty	Project planning requires much information; there is great uncertainty	Uses and population conditions
Javeriana		Uncertainty	It depends on the decision; result may vary or lengthen	View them as a category or problem to solve
Javeriana	8	Uncertainty	Depending on decisions made solution can lengthen or shorten	Seen as a category or problem to solve
Javeriana		Conflict	Finding common factors among different project actors considering everyone has different interests	Begin organizing different problems into categories like mobility public space housing regulations prioritize accordingly
Javeriana	7	Uncertainty	Since having uncertainty could start discarding process	Mainly organize define categories around theme like mobility community environmental scope among others
Javeriana	8	Conflict	Chose conflict because many interests viewpoints intersect not always fitting decisions not linear necessary negotiate mediate adjust things project advances no part excluded	Main problems defining decision areas tensions between actors lack clear information limited resources time pressure decisions organized by categories space management social impact technical viability project scope
San Buenaventura Monday	5	Conflict Uncertainty	Conflict between different interests housing commerce mobility environment condition any decision uncertainty due lack clear information about future sector behavior	Main problems defining decision areas mobility pedestrian vehicular bike paths canal use shopping center location existing commerce management public space housing affectations
San Buenaventura Monday	5	Uncertainty	Project depends external decisions mobility regulations difficult know each option viable besides interests almost never coincide	How to use neighborhood canal without displacing community connectivity between stations need for more public space green areas
San Buenaventura Monday	5	Pressures Uncertainty	Developer needs legal certainty POT clarity financial viability not always defined	Shopping center location canal use public space privatization high-density housing
San Buenaventura Monday	5	Conflict Uncertainty	Merchants need guarantees not be displaced maintain clientele generating group tension	Local commerce permanence orderly relocation immediate public space definition environment security
San Buenaventura Monday	5	Conflict	Community prioritizes permanence security no displacement contrast private interests	Improve security guarantee accessible public space include equipment for children older adults strengthen local connectivity seeking more inclusive functional connected environment all inhabitants
San Buenaventura Monday	5	Uncertainty	Many elements depend on mobility drainage POT security not yet defined	How to use canal how integrate commerce housing what mobility model adopt how guarantee safe public space
San Buenaventura Wednesday	5	Pressures Conflict Uncertainty	Perceived decisions influenced by technical regulatory pressures conflicts between commerce housing transport system operation needs uncertainty especially projecting warehouse relocation effects without displacements functional deterioration Santa Elena	Decision areas defined from key problems like conflicting warehouse-housing coexistence lack public space connectivity-security need reorganize mobility integrate MIO station height regulatory restrictions economic impact local commerce areas selected because offer developer real transformation margin volumetric reorganization use compatibility soil exploitation strengthening neighborhood commerce
San Buenaventura Wednesday	Fifth	Uncertainty	Greatest uncertainty came from not knowing how community would react if warehouses relocated heights modified underground station made all generating doubts about real impacts on security commerce mobility	Conflicting mixture between warehouses and housing market day congestion commercial identity loss nocturnal sector insecurity
San Buenaventura Wednesday	5	Conflict	Visible conflict between warehouse owners and residents was decisive smells noise heavy transit common space deterioration	Clash between logistics and residential activities nocturnal insecurity disconnection between main roads urban landscape loss
San Buenaventura Wednesday	5th	Pressures	There is POT pressure pressure to improve mobility pressure from merchants not be displaced	Exaggerated heights warehouse invasion lack of parks connection absence between roads
San Buenaventura Wednesday	Fifth	Uncertainty	Nobody yet knows if commuter station will change commerce flows or worsen existing chaos	Public space invasion Calle 26 collapsed building heights lack of parks
San Buenaventura Wednesday	5	Conflict	Impossible coexistence between warehouses and housing marked entire discussion	Smells noise trucks insecurity absence attractive equipment
San Buenaventura Wednesday	5	Pressures	Institutional pressure POT community pressure improve public space pressure	Lack of pathways disconnected parks deficient station location

2.3 Reasons for Selection	3.1 Reasons for Incompatibilities	3.2 Conflicting/Reinforcing Options	4. Comparison Criteria
Prioritize organization of decision problems	Negotiating community interests with design criteria	Pilot interventions must be scalable effectively especially to improve public space impact	I don't remember
Home displacement of people awakens empathy toward residents	Because there are always different paths circumstances options it depends on who acts	Housing legalization	Security perception because it shows how used a space is
Importance of how people are removed from homes very common in Cali but unfortunately neglected	Since different roles each should have different interests leading to different decisions	Housing legalization	First floor commerce densification - insecurity perception because important to give people security feeling through continuous pedestrian lighting furniture not obstructing visibility
Defining role each person would act as resident helped understand user situation interests then grouping common decision areas created sets for intervention	One reason is each represents different actors within conflict each has own interests	Densification compatible with mixed use first floor commerce at micro-scale homes transform commerce first floor higher levels densify housing generating specific interventions	Some options were insecurity perception public-private interaction public space habitability important for pedestrian safety
Importance people usually removed from homes not something being discussed much happens important	Since each had established role either regulatory social then incompatibility	First floor area plus densify consider these could complement each other	Build limit decision area completed speaking security feelings
Chosen because allow better understanding where critical points generated each area affects final result classifying helps prioritize topics require more analysis negotiation adjustments before advancing	Incompatibilities arise because each option responds different needs some seek efficiency others social impact others reduce costs sometimes goals clash actors not sharing same interests expectations	Options competing same space same resources generate conflict like physical interventions affecting mobility land use conversely connecting micro-interventions like accessibility landscape improvements larger urban integration objectives reinforced	Selected criteria social impact technical viability cost because allow comparing options balanced way showing which decisions contribute most without jeopardizing execution help recognize necessary sacrifices
Categories emerged because topics where greatest number tensions between actors concentrated project generates more direct impacts	Because some options compete for same physical space	Some options reinforce each other like recovering canal as green corridor along expanding parks improving public space complementing equipment	Mobility public space environmental impact commerce because evidence greatest differences between options could be used to decide
Because most critical elements guarantee security equitable access coherent urban structure	Options clash when one prioritizes high-density housing another prioritizes green areas or one proposes privatizing public space another making accessible	Privatization public space versus community linear park paving canal for cars versus converting green corridor	Security urban functionality accessibility chosen because define how useful fair intervention is for everyone
Elements most influencing project profitability land occupation model	Green corridor versus paving for traffic social versus luxury housing free versus privatized public space	Integrated shopping center at station versus maintaining dispersed neighborhood commerce canal as park versus canal as vehicle road	Profitability land efficiency economic flow mobility articulation
Priority given maintaining local commerce orderly relocating defining nearby public space improving environment security strengthen urban dynamics without affecting social fabric	Define whether commerce survives replaced by private projects without integration	Strengthen neighborhood commerce open public space as inclusive options versus exclusive models like luxury shopping centers privatized spaces prioritizing community appropriation equitable urban environment access	Permanence pedestrian flow security accessibility
Urgent needs identified in tours discussions	Community park versus shopping center	Idea privatizing considering entire project seeks public space democratization especially area seems disconnected all city systems equipment	Habitability equity universal accessibility
Decisions most conditioning corridor future	Vehicle road versus green corridor luxury versus neighborhood commerce relocation versus permanence	Total paving versus environmental recovery high densification versus 2-3 floor context	Security functionality economic impact social equity
Maximum heights versus context harmony relocate warehouses versus no displacement more vehicular mobility space versus pedestrian space expansion underground station versus costs technical feasibility these tensions forced prioritizing comprehensive options instead isolated solutions	1. Orderly warehouse relocation may conflict maintaining existing housing without affectations 2. Optimizing pedestrian connectivity reinforces active commercial ground floor option 3. Underground station reinforces public space liberation but conflicts budgetary limitations	Functionality evaluate joint warehouse-commerce-housing operation budget due complex works like underground station security urban perception key dynamizing ground floor urban continuity mobility essential consolidating corridor these criteria relevant comparing scenarios from developer perspective	Implement active ground floor with local commerce minimal immediate public space reorganization
Chose relocation underground platform centralized commerce because were problems most affecting coexistence mobility neighborhood perception	Options incompatible due noise odors risks if warehouses and housing remain together on surface also excessive building height entered into conflict with neighborhood identity	Relocation and high-rise housing reinforce improve habitability warehouses on surface and ground-floor public space totally contradict	Selected mobility identity security because were criteria most affecting daily life congestion neighborhood appropriation secure public space use
Decision areas chosen to directly attack this conflict separate uses improve mobility create equipment giving sector life	Logistics at street level incompatible with pedestrians small commerce family housing also contradicts neighborhood centrality notion	Underground station and relocation reinforce mobility logistics on surface enters into conflict with public equipment	Equipment mobility urban landscape because help measure how design changes sector perception
Those areas directly affect how neighborhood is experienced identity security mobility	Putting tall towers breaks skyline displaces commerce warehouses on surface annuls public space	High-rise housing plus centralized commerce works well surface station plus warehouses equals chaos	Skyline identity habitability to evaluate coherence with neighborhood
Because those variables determine how sector perceived order or chaos	Surface station plus warehouses equals more chaos informal commerce plus heavy logistics equals insecurity	Centralized commerce reinforces mobility warehouse relocation reduces housing conflicts	Security mobility identity
Necessary to separate incompatible and reinforce what does work	Living next to warehouses incompatible due health heavy commerce insecurity	Housing plus public space reinforce warehouse plus public space contradict	Equipment habitability mobility
Chose decision areas that could change daily neighborhood experience	Tall towers contradict identity warehouses contradict habitability	Urban design plus underground station reinforce warehouses at level plus pedestrians equals incompatible	Cultural identity environmental governance

5.1 Short-term Actions	5.2 Short-term Decision	5.3 Medium/Long-term Decision	5.4 Urban Acupuncture Alignment
Identify actors within the space and dynamics that move them	First floor commerce densify and increase heights	Create first floor commerce to increase public participation in public life and economic activity	Related Decisions
Seek strategies via surveys forms interviews to categorize who needs it	Generate aid to densify city by reducing buildability percentage	Buildability-mixed use-first floor commerce-densify equals value capture instrument to encourage community	Intervene a sports center to improve it
Seek data collection strategies like surveys forms to detect who needs it	Provide economic aid to population to encourage high-rise construction	Buildability-mixed use-first floor commerce-densify generate value capture instrument encouraging people improve homes	Improve sports center like clean green areas trace existing courts for maintenance
Surveys research action plans regulatory changes benefit necessary actors	Analyze high-rise densification feasibility near air base area reach agreements reduce regulatory limits	Regarding densification change regulations by increasing buildability near air base helps densify multi-family housing give tax incentives construction licenses	Sports center functions as urban acupuncture proposing equipment improvement area increasing pedestrian activity general wellbeing
Activity plus diverse occupation project plus first floor commerce plus sports center conduct surveys if sports center concept first floor start painting courts locate within green corridor	Activity plus diverse occupation plus first floor commerce plus sports center conduct surveys consult with neighbors implementation measure community support networks execution	Clean green area frame court closest short-medium term see if area could become sports center extension thus long-term more sports elements encourage regulation change this area sports hub	Court and area cleaning serves as tactical urbanism social commitment sector
Short-term actions like collecting information validating needs involved actors reviewing technical restrictions defining immediate priorities allow advancement without blocking process key	Decision was prioritize information gathering clarify critical points chose because without clear basis very easy make decisions later generate more conflict delays	Decided strengthen articulation between project scales micro and macro because assures small interventions not disconnected really contribute to larger transformation	Decisions working strategic micro-interventions prioritizing specific actions activate specific areas seeking cumulative impacts totally aligned with Urban Acupuncture logic where small gestures generate significant urban system changes
Initially talk to people review building conditions could be reused reactivate as commercial boulevard	Start making hubs begin using corridor space surroundings	Develop several equipment pieces finish with shopping center obtain greater financial profitability	Begin with canal use start gaining space
Clean plant trees signpost canal axis activate space safely orders sector while larger scale decision advances	Because improves security perception allows community use public space even without large investment	Build equipped green corridor between stations generate continuous safe identity urban structure connects equipment supports local commerce	Small actions like lighting furniture activations tactical interventions prepare ground for larger processes
Manage permits technical studies for canal paving drainage	Basis for transforming canal into profitable functional axis	Shopping center construction plus vertical mixed uses	Maximizes income attracts investment dynamizes corridor
Activate temporary fairs open storefronts neighborhood commerce	Increase pedestrian flow security visibility without large costs	Reorganize warehouses businesses into cleaner compatible typologies improve housing-commerce relationship without expelling activities	Quick interventions like lighting signage cultural fairs activate corridor low risk
Lighting plus cleaning plus activation with community events	Quick actions reduce insecurity reactivate neighborhood	Neighborhood equipment connected green corridor improve life quality without changing social structure	Reversible micro-interventions allow measuring acceptance before major changes
Mapping sidewalk ordering pedestrian activation	Allows quick tests without compromising structural decisions	Structure mixed scheme combining linear park plus controlled commerce balances all actors interests	Small interventions serve testing scenarios gaining acceptance
Low cost relative action high impact security perception economic vitality integration between new typologies and context improves visibility pedestrian flow without requiring major works	Orderly warehouse relocation consolidation of up-to-5-floor volumes integrated with underground station phase requires coordination licensing actor adaptation allows resolving chronic industrial commerce-housing conflicts generating long-term urban continuity	Punctual ground floor activation as commerce and encounter nucleus small reversible interventions improve security lighting transparent facades micro-plazas linked to MIO stop temporary loading-unloading organization tests measure impacts all low-cost high-immediate-impact tactics	Related Decisions
Order loading-unloading schedules sector cleaning signage improve security without waiting for major works	Chose restricting vehicular access certain hours because solved congestion immediately reduced risks	Implement housing platform plus underground warehouse allows surface space liberation generate safe centrality	Small public space improvements like cleaning lighting pathways are focal actions generate large social impact
Regulate loading-unloading improve lighting clean critical areas	Decided illuminate dark points because students pointed people avoid walking there at night when created organized supply center avoids Calle 26 collapse on market days	Acting on specific insecurity and disorder focus points generates rapid transformations perceived by all	Values
Organize loading-unloading space clean canal edges	Chose regulating nocturnal loading because reduces noise traffic	Housing platform plus underground warehouse balanced solution by dividing activities can guarantee even greater security road product warehouses logistics systematization net commercial zone ground floor net housing towers more efficient soil use	Intervene conflict microfocus corners crossings dark points without waiting for entire project
Illuminate clean signpost pedestrian passages	Chose cleaning plus surveillance warehouse points	Create linear park connected to main roads	Small parks and pathways generate immediate confidence
Signage loading control cleaning	Chose separate pedestrian and loading flows	Reorder warehouses toward specific zone centralization	Intervene borders conflict points creates better coexistence
Reconnect existing parks clean critical points	Improve pathways between parks	Create network cultural and commercial equipment	Acting on specific nodes allows activating entire corridor

6.1 Greater Uncertainties	6.2 Small-scale Uncertainty Management	6.3 Pilots/Prototypes Function
Related Decisions	Community art murals reflecting society living there	Concrete improvements like better lighting cleanliness meeting spaces demonstrate institutional commitment without generating tensions
Related Decisions	Punctual warm lighting on paths accesses meeting points improves security without major urban changes	Being reversible and adjustable communities feel less risk from intervention
Related Decisions	Regarding disruptive uncertainties in insecurity small interventions generate continuous people presence increasing natural surveillance	Urban acupuncture interventions act as pilots implemented quickly small format low cost allowing ideas testing without resistance prototypes allow community experience change evaluate benefits adjust collectively
Related Decisions	Small-scale interventions function as strategic actions manage uncertainty because allow action when pressure lack perfect information disagreement actors cleaning green area framing court immediate action helps test sporting potential activate space community presence reduce risks	Small-scale interventions function as pilots prototypes allow testing solutions without assuming high risks generating real evidence how space can transform
Environment	Small interventions serve as tactical moves allow testing things without compromising entire project being fast manageable help read context better see what works adjust real-time lowers pressure not depending one big final decision but small steps building path	Function as pilots showing visible results short time allow community directly experience change when people see something improves immediate space motivated participate give opinions appropriate process each intervention leaves lessons learned help make safer decisions aligned with neighborhood really needs
Environment	Reviewing great construction effective	With greater idea communication could convince everyone
Environment Related Decisions	Allow testing whether certain spaces work before large-scale investment reduce political social risks	Function as quick tests if community adopts scale up if not adjust without losing resources
Environment Values	Measure security perception commercial viability prior to large works	Temporary kiosks loading-unloading ordering showcase pilots
Environment Values	Test whether commerce revitalizes space when lighting improved sidewalks widened	Community market
Environment	Create appropriation continuous community presence avoid violence evictions	Urban gardens modular children games tactical furniture
Environment Related Decisions	Allow rapid learning corrections before major investments	Build pergolas rest spaces more lighting test functional furniture won't be stolen converted trash
Allow testing solutions before committing large investments reduce change resistance generate real evidence about security pedestrian flow use coexistence	Serve validating mobility patterns commerce functioning public space use community acceptance strengthen social appropriation allow adjusting project without high costs	
Environment	Allow testing solutions without compromising large investments lighting pedestrian crossings signage can demonstrate immediate changes	Community tests change evaluates if works appropriates generates trust to scale project to larger phases
Create micro-victories showing change possible without major works	If improved pathway or corner works can be replicated along entire corridor	
Related Decisions	Pedestrians prioritized safe crossings tactical painting help observe behaviors	Pathway pilot section allows validating design before complete project
Environment	Can reorganize flows on critical days measure impact	Neighbors see rapid changes start participating
Values	Serve observing how interaction between actors changes	Shared street trial can validate future pedestrianization
Related Decisions	Small changes allow adjusting without putting project at risk	Temporary events or controlled markets can test new urban dynamics

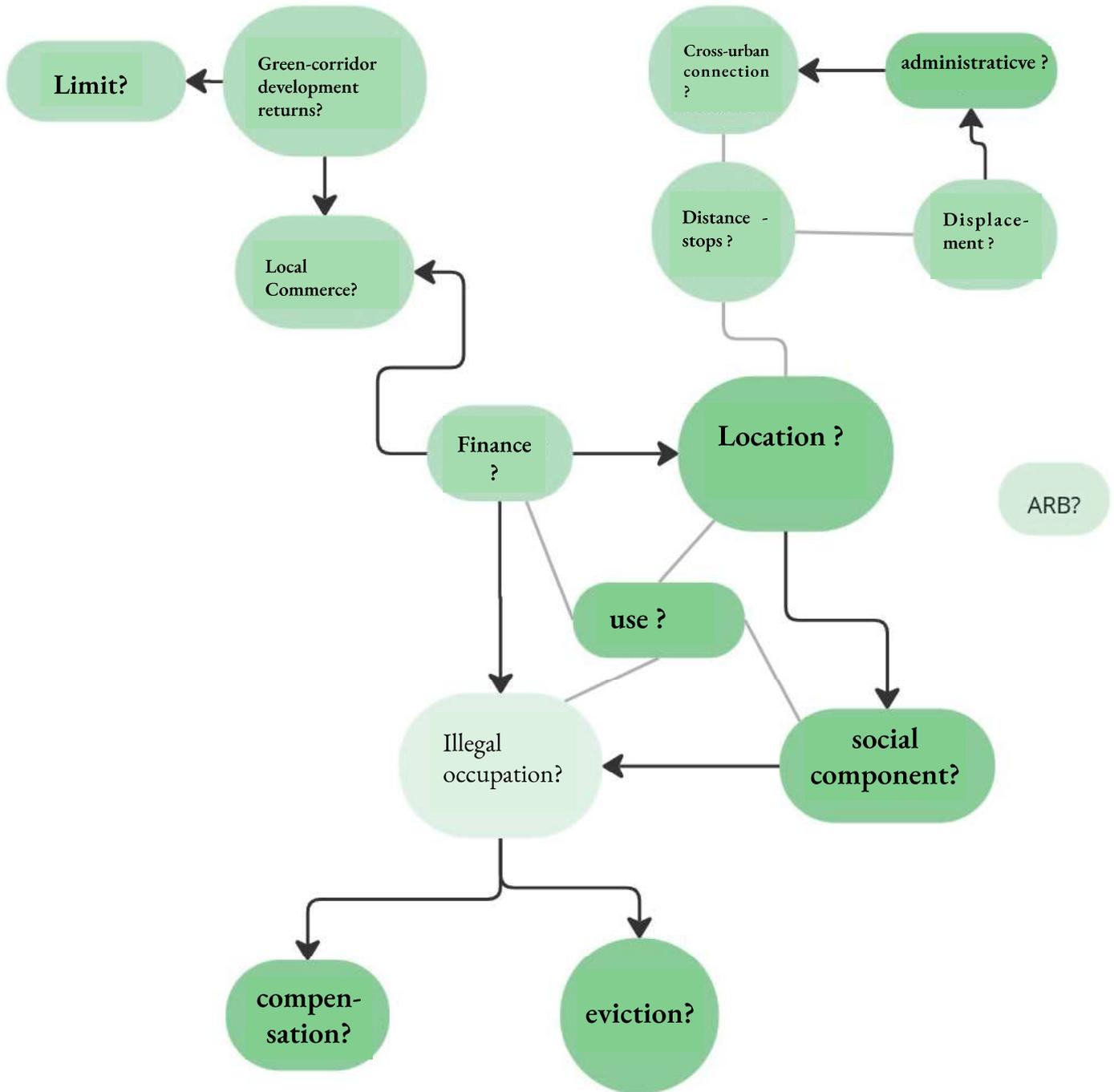
8_f. Translation of Excercises during the Application of SCA

PUJ - Decision Areas

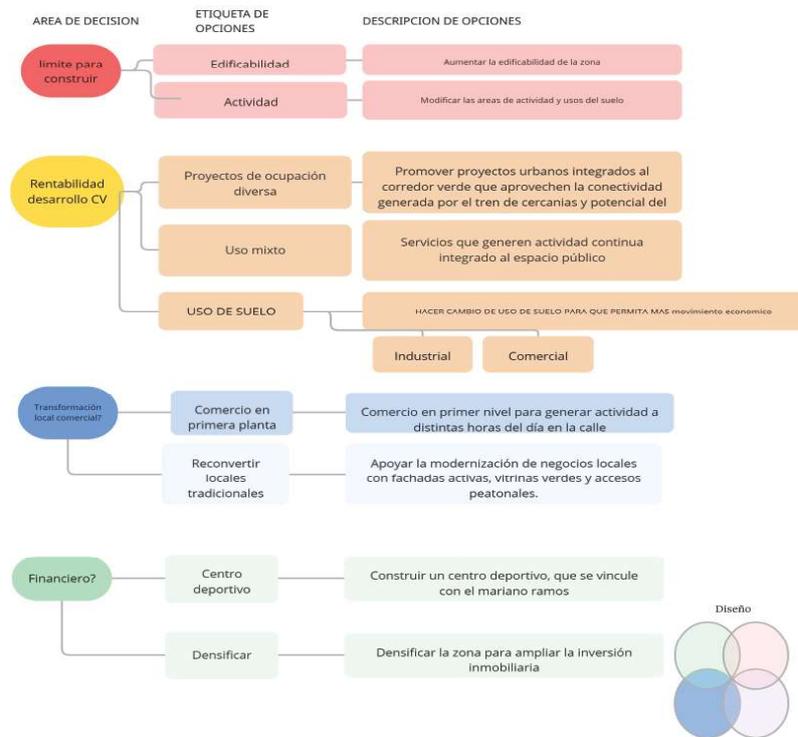
DESCRIPCION DE AREA DE DECISION	AREA DE DECISION
¿Debería pasar enfrente de mi propiedad sin tocar mi casa?	Ubicación
¿Cómo liberar la zona ocupada ilegalmente sin generar problemática?	Ocupación ilegal?
¿Habrà desplazamiento de los residentes actuales por la valorización de la zona y aumento de los costos de vida?	¿Desplazamiento?
¿Se va a mantener la actividad actual ?	Transformación local comercial
¿Cómo generar captura de valor cerca del proyecto?	Financiero
¿A dónde me van a mandar a vivir si me quieren sacar de aquí?	Me van A sacar
¿Cuáles serán las compensaciones por mis 30 años viviendo aquí?	compensacion?
¿Como aumentar la densificación arborea?	ARB
Quienes seran los encargados de reubicar a los invasores?	Administrativ
¿Habrà una parada cercana que me permita acceder fácilmente al tren para desplazarme?	Distancia entre paradas
Que tanto voy a poder construir en las nuevas zonas para poner mis nuevas bodegas de producción	limite
¿En que tramos hay mayor rentabilidad en el corredor verde?	Rentabilidad desarrollo CV
¿Los usos comerciales se mantendran?	Uso
¿El trazado de la vía afectara el paso peatonal trasversal al corredor verde? ¿Como me conectare con el trazado urbano del otro lado de la vía del tren?	Conexión urbana trasversal

Translation of Decision areas	
Decision Area - Description	Label
Should it pass in front of my property without touching my house?	Location?
How can the illegally occupied zone be cleared without generating conflict?	Illegal occupation?
Will there be displacement of current residents due to area valorization and higher living costs?	Displacement?
Will the current activity be maintained?	Local commerce?
How can value capture be generated near the project?	Financial?
Where will they send me to live if they want to remove me from here?	eviction?
What will the compensations be for my 30 years living here?	Compensation?
How can tree density be increased?	ARB?
Who will be in charge of relocating the squatters?	Administrative
Will there be a nearby stop that allows me easy access to the train for daily travel?	Distance - stops
How much will I be able to build in the new areas to place my new production warehouses?	Limit
In which segments will there be higher profitability in the green corridor?	Green-corridor development returns
Will commercial uses be maintained?	Use
Will the alignment of the rail line affect cross-pedestrian access to the green corridor? How will I connect to the urban fabric on the other side of the tracks?	Cross-urban connection

PUJ - Final Decision Graph



PUJ - Decision options

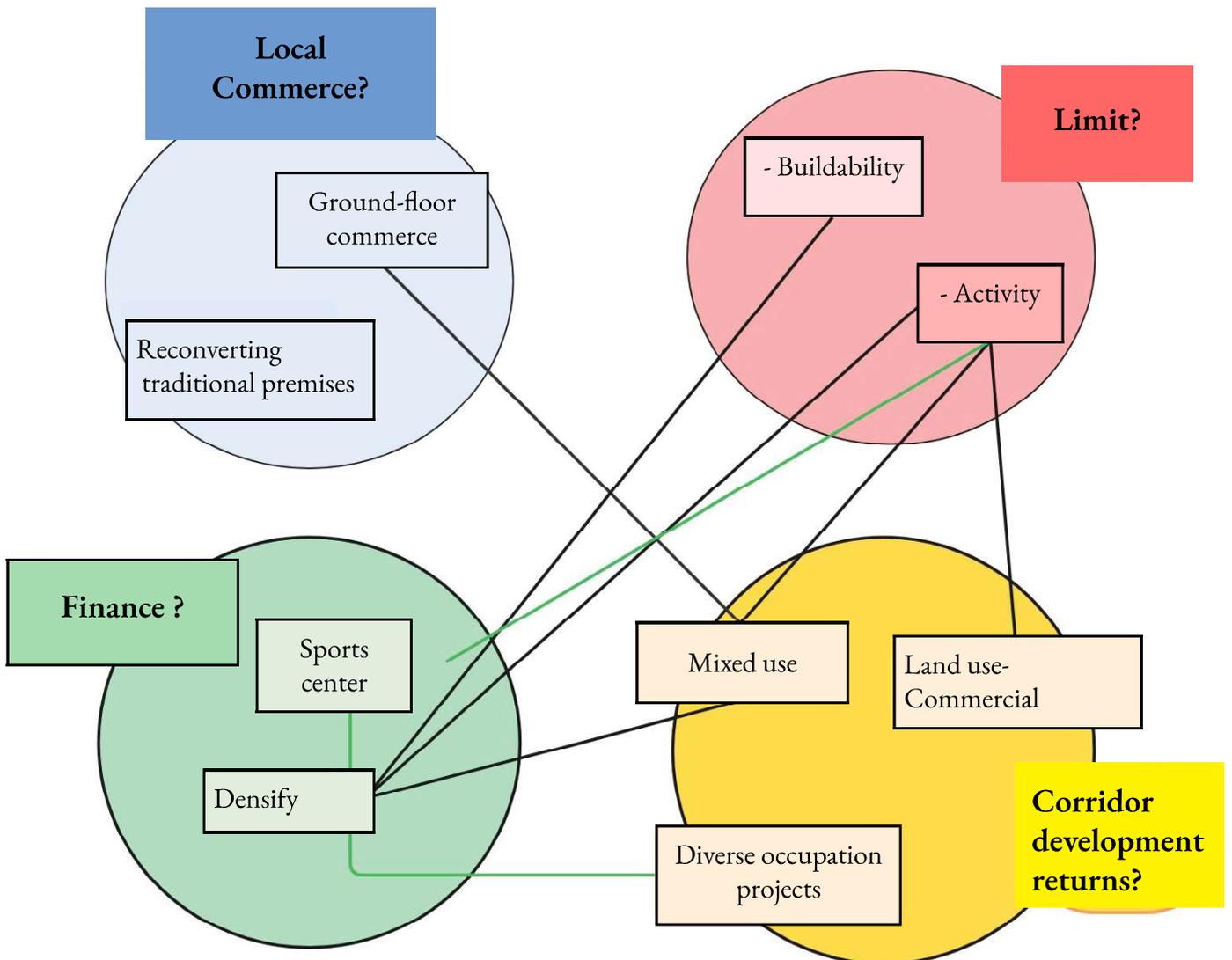


Translation of Decision Options

Decision Area	Option Label	Option Description
Building limit?	Buildability	Increase the buildability of the area.
	Activity	Modify activity zones and land-use areas.
Corridor development returns?	Diverse occupation projects	Promote urban projects integrated with the green corridor that leverage the connectivity created by the commuter train and the corridor's potential.
	Mixed use	Services that generate continuous activity integrated with public space.
	Land use- Industrial	Change land use so that industrial activities are allowed to increase economic movement.
	Land use- Commercial	Change land use so that commercial activities are allowed to increase economic movement.
Local commercial transformation?	Ground-floor commerce	Ground-floor commerce to generate activity on the street at different times of day.
	Reconverting traditional premises	Support the modernization of local businesses with active façades, green shopfronts, and pedestrian access.
Financial?	Sports center	Build a sports center connected to the Mariano Ramos facility.
	Densify	Densify the area to expand real-estate investment.

PUJ - Option Bar and Option Graph

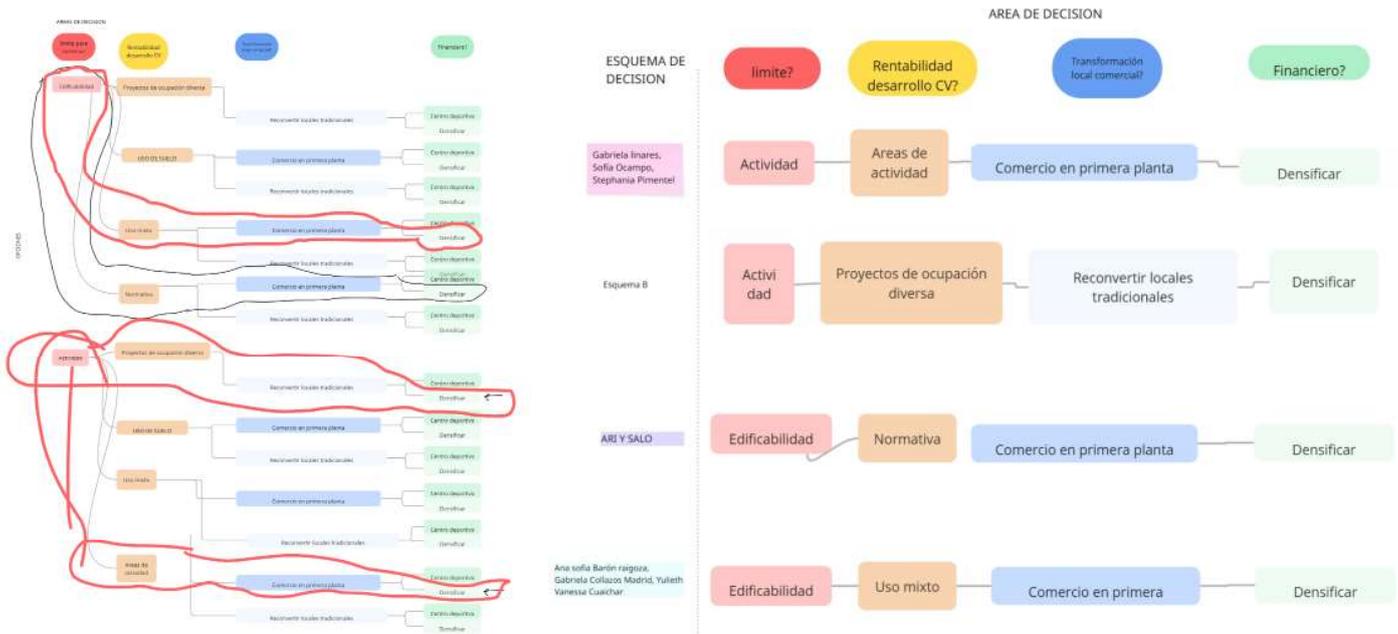
		Corridor development returns?			Local Commerce?	
		Mix use	Land use-Industrial	Land use-Commercial	Ground-floor commerce	Reconverting traditional premises
Finance?	Sports center	O	O	X		
	Densify	O	O	O	O	O
Building limit?	Buildability	O				
	Activity		O	O	O	O



PUJ - Scheme Graph

Translation of all Decision Option				
Limit?	Corridor development returns?	Local Commerce?	Finance?	Schemes
- Buildability	- Diverse occupation projects	- Ground-floor commerce	- Sports center	Scheme A
			- Densify	Scheme B
		- Reverting traditional premises	- Sports center	Scheme C
			- Densify	Scheme D
	- Land use-Commercial	- Ground-floor commerce	- Sports center	Scheme E
			- Densify	Scheme F
		- Reverting traditional premises	- Sports center	Scheme G
			- Densify	Scheme H
	- Mixed use	- Ground-floor commerce	- Sports center	Scheme I
			- Densify	Scheme GSS
		- Reverting traditional premises	- Sports center	Scheme J
			- Densify	Scheme K
- Activity Areas	- Ground-floor commerce	- Sports center	Esquema B	
		- Densify	Scheme L	
	- Reverting traditional premises	- Sports center	Scheme M	
		- Densify	Scheme N	
- Activity	- Diverse occupation projects	- Ground-floor commerce	- Sports center	Scheme A&S
			- Densify	Scheme O
		- Reverting traditional premises	- Sports center	Scheme P
			- Densify	Scheme Q
	- Land use-Commercial	- Ground-floor commerce	- Sports center	Scheme R
			- Densify	Scheme S
		- Reverting traditional premises	- Sports center	Scheme T
			- Densify	Scheme U
	- Mixed use	- Ground-floor commerce	- Sports center	Scheme V
			- Densify	Scheme W
		- Reverting traditional premises	- Sports center	Scheme X
			- Densify	Scheme Y
- Activity Areas	- Ground-floor commerce	- Sports center	Scheme Z	
		- Densify	Scheme AGV	
	- Reverting traditional premises	- Sports center	Scheme AA	
		- Densify	Scheme AB	

PUJ - Selected Schemes and Group division



Selected Schemes to compare				
Decision areas:	Building Limit?	Corridor development returns?	Local commercial transformation?	Financial?
Scheme GSS	Activity	Activity areas	Ground-floor commerce	Densify
Esquema b	Activity	Projects of diverse occupation	Reconverting traditional premises	Densify
scheme AS	Buildability	Norm	Ground-floor commerce	Densify
Schemes AGV	Buildability	Mixed use	Ground-floor commerce	Densify

PUJ - AI, comparing

Scheme GSS:

Activity	Activity areas	Ground-floor commerce	Densify
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Regulation of permitted uses, complementary uses, and the intensity of land-use exploitation evaluation:



Problem question/Pront:

In the context of the workshop on the Green Corridor, the possible characters and characteristics involved in the project are being analyzed. Based on the activity and activity-area map, particularly strategies of ground-floor commerce and densification, several questions arise about the perceptions and effects these actions could generate.

For example: how does ground-floor commerce affect the perception of safety, the habitability, and the connectivity of public space? Do these strategies improve or worsen these conditions? In other words, to what extent—on a scale from low to high—do these actions influence aspects such as connectivity, use of public space, or interaction between the public and the private?

- Perception of insecurity
- Public-private interaction +
- Good use of public space
- Santa Elena Gallery heritage +
- Public space aesthetics +
- Public space habitability
- Connectivity

Conclusions:

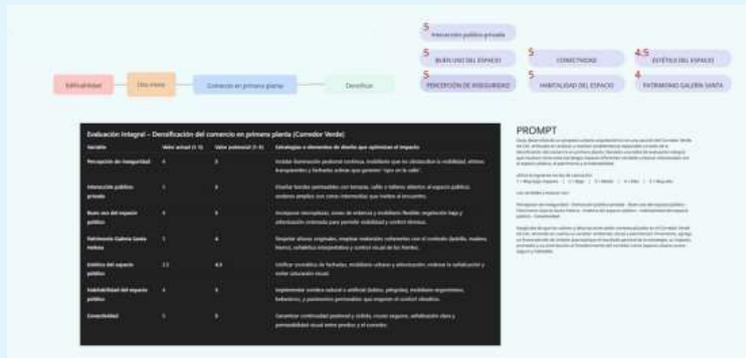
The strategies of ground-floor commerce and densification directly affect the vitality and perception of the Green Corridor. The first strengthens safety, public-private interaction, and habitability by generating constant activity and visual continuity in public space; densification, in turn, increases connectivity and the presence of users, fostering urban life, although it requires morphological control that preserves the heritage and scale of the surroundings. Together, both strategies contribute to a more active, diverse, and habitable corridor, as long as they are accompanied by coherent design aligned with the physical and social context.

Comparison area	Impact (1-5)	Associated design elements	Brief justification
INS	5	Transparent façades, continuous lighting, open shop windows, visual control from the premises	Movement and visibility generate "eyes on the street," reducing the perception of risk.
VIT	5	Soft transitions (porticoes, terraces, active arcades), direct access from the street	Facilitates exchange between the interior of the commercial space and the public space.
PÚB	4	Urban furniture, areas for staying, wide platforms	Encourages appropriation of the space, although it requires control to avoid obstruction.
PAT	3	Formal integration, materials consistent with what already exists, controlled heights	Can be well integrated if the scale and architectural language of the surroundings are maintained.
EST	3	Signage control, uniformity in façades, vegetation, coherent color palette	Improves if there is coherent design; worsens if there is visual saturation or disorder.
HAB	5	Shade, furniture, green areas, lighting, connection with uses	Promotes continuous and diverse use of urban space.
CON	4	Clear pedestrian routes, continuity of active façades, multiple accesses	Increases flow and the visual and physical permeability of the corridor.

PUJ - AI, comparing

Scheme AGV:

Buildability	Used Mixed	Ground-floor commerce	Densify
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Comparison Area	Current Value	Potential Value	Strategies or design elements that optimize the impact
INS	4	5	Install continuous pedestrian lighting, furniture that does not obstruct visibility, transparent shop windows and active façades that generate “eyes on the street”
VIT	5	5	Design permeable edges with terraces, cafés or open workshops onto public space, with wide sidewalks and intermediate zones that invite encounters.
PÚB	4	5	Incorporate micro-plazas, areas for staying and flexible furniture; use low vegetation and orderly tree planting to allow visibility and thermal comfort.
PAT	3	4	Respect original heights, use materials consistent with the context (brick, wood, iron), provide interpretive signage and visual control of façades.
EST	3.5	4.5	Unify façade color schemes, urban furniture and tree planting; organize signage and avoid visual saturation.
HAB	4	5	Provide natural or artificial shade (awnings, pergolas), ergonomic furniture, drinking fountains and permeable pavements that improve climatic comfort.
CON	5	5	Guarantee pedestrian and cyclist continuity, safe crossings, clear signage and visual permeability between plots and the corridor.

Problem question/Pront:

I am developing an urban-architectural project in a section of Cali’s Green Corridor, focused on analyzing and resolving spatial problems through the densification of ground-floor commerce. I need a comprehensive evaluation table that shows how this strategy impacts different urban variables related to public space, heritage, and habitability.

Use the following rating scale:

1 = Very low impact | 2 = Low | 3 = Medium | 4 = High | 5 = Very high

The variables to be evaluated are:

- Perception of insecurity – Public–private interaction – Good use of public space – Santa Elena Gallery heritage – Public space aesthetics – Public space habitability – Connectivity.

Make sure that the values and descriptions are contextualized in Cali’s Green Corridor, taking into account its environmental, social, and heritage character. Finally, add a brief synthesis paragraph that explains the overall result of the strategy, its average impact, and its contribution to strengthening the corridor as an active, safe, and habitable urban space.

PUJ - AI, comparing

Scheme SA:

Buildability	NORM	Ground-floor commerce	Densify
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Prompt:

How does ground-floor commerce, with projections to densify housing, affect the perception of insecurity, public-private interaction, the heritage of Galería Santa Elena, public space aesthetics, habitability, and connectivity? Do this on a scale from 1 to 5. Also, what design elements can increase the score on that scale?

Ranges of pertinence of the scheme around the comparison areas:		
Comparison area	Impact (1-5)	Interpretation
INS	2-4	Fluctuates between moderate insecurity (closed façades, low activity) and significant improvement when there is active commerce, good lighting, and pedestrian flow.
PÚB	2-4	There is usually discontinuity between spaces (2), but it can reach a high range (4) if a fluid transition between street and premises is achieved with active thresholds.
PAT	1-3	Tends to be low because many new buildings break the scale or historic character. It only reaches 3 if coherent materials and volumes are integrated.
EST	2-4	Usually varies between a fragmented image (2) and acceptable visual coherence (4) when there is control of furniture, signage, and vegetation.
HAB	3-5	Generally high when there is a balanced mix of uses, ventilation, and acoustic insulation. In well-designed densification it can reach 5.
CON	3-5	Improves with pedestrian and cyclist integration, safe crossings, and connection to public transport. The best-planned cases reach 5.

On the black table (in the screenshot):

The diagram presents an impact scale for ground-floor commerce combined with housing densification, evaluated across six dimensions: perception of insecurity, public-private interaction, heritage (Galería Santa Elena), public space aesthetics, habitability, and connectivity. For each dimension it defines three qualitative levels—very low/negative impact, medium/unstable balance, and very high/positive impact—describing typical spatial conditions at each level (from empty streets and hard boundaries to active, permeable edges and coherent urban form).

It also lists design factors that can raise scores, such as permeable façades, warm continuous lighting, mixed uses, furniture that encourages lingering, controlled ground-floor setbacks with habitable thresholds, coherent materials with the historic context, unified material palettes, intermediate spaces like patios and balconies, acoustic insulation, safe widened sidewalks, integration with public transport, clear pedestrian/cyclist signage, and inclusive street furniture and green connectors.

PUJ - AI, choosing

Scheme GSS:

Activity	Activity areas	Ground-floor commerce	Densify
----------	----------------	-----------------------	---------

In the area analyzed in the Green Corridor, the strategies of ground-floor commerce and densification generate high levels of uncertainty mainly about values (UV) and the environment (UE). This happens because the process must balance heritage preservation, habitability, and urban revitalization, while responding to changing external factors such as safety, public-space use, and mobility.

In general terms:

High uncertainty (4–5): heritage, perception of safety, habitability, and use of public space.

Medium (3): public–private interaction, aesthetics, and connectivity.

Low (1–2): do not appear, since all variables are interrelated and subject to multiple factors.

Variable	Tipología de Incertidumbre	Rango (1-5)	Justificación breve
Percepción de inseguridad	UE - Entorno / UD - Eventos disruptivos	4	Depende del comportamiento social y de la respuesta ante situaciones de riesgo o crisis. La percepción puede cambiar rápidamente.
Interacción público-privada	UV - Valores / UR - Decisiones relacionadas	3	Está sujeta a acuerdos entre actores (privados y públicos) y al manejo normativo de usos.
Buen uso del espacio público	UE - Entorno / UR - Decisiones relacionadas	4	Depende del flujo de personas, la gestión del mobiliario y las políticas municipales.
Patrimonio Galería Santa Helena	UV - Valores	5	Es la mayor fuente de incertidumbre; hay tensiones entre conservar el valor histórico y promover la densificación.
Estética del espacio público	UV - Valores / UE - Entorno	3	La percepción estética es subjetiva y depende de valores culturales, además del contexto urbano.
Habitabilidad del espacio público	UE - Entorno / UD - Eventos disruptivos	4	Puede variar con el tiempo según el clima, la seguridad o la dinámica social.
Conectividad	UR - Decisiones relacionadas / UE - Entorno	3	Depende de decisiones coordinadas sobre movilidad, infraestructura y continuidad peatonal.

Comparison Area	Types of Uncertainty	Range	Brief explanation
INS	UE - ED	4	Depends on social behavior and the response to risk or crisis situations; perception can change quickly.
VIT	UV - UR	5	Subject to agreements between actors (private and public) and to normative management of land uses.
PÚBL	UE - UR	5	Depends on people flow, furniture management, and municipal policies.
PAT	UV	4	The greatest source of uncertainty; there are tensions between preserving historic value and promoting densification.
EST	UV - UE	4.5	Aesthetic perception is subjective and depends on cultural values and the urban context.
HAB	UE - UD	5	Can vary over time according to climate, safety, and social dynamics.
CON	UR - UE	5	Depends on coordinated decisions on mobility, infrastructure, and continuous pedestrian flows.

PUJ - AI, choosing

Scheme AGV:

Buildability	Used Mixed	Ground-floor commerce	Densify
--------------	------------	-----------------------	---------

Uncertainty in the project emerges across four dimensions: values, environment, related decisions, and disruptive events. On values, residents differ in how they perceive densification, commerce, and public space, creating medium–high tension. Environmental factors stand out as the most critical, with high risks from flooding, contamination, and volatile real-estate dynamics.

Related decisions add further complexity, as coordination gaps, uneven participation, fragile local commerce, and maintenance issues create medium–high

uncertainty. Disruptive events such as policy changes, economic crises, or natural disasters pose medium risks, though social conflict is seen as moderate.

Taken together, the analysis shows a landscape of interconnected uncertainties. Values and environmental conditions are the most pressing, requiring inclusive dialogue and adaptive strategies. Projects must be resilient, able to absorb shocks, and flexible enough to adjust course while still pursuing meaningful outcomes.

INCERTIDUMBRES



Uncertainty about values

Differences in perceptions of safety and convenience – Level 4: Not all residents value densification or mixed uses the same way; some associate them with insecurity.

Acceptance of ground-floor commerce – Level 3: May generate resistance due to noise or traffic, even if it improves urban vitality.

Symbolic value of the landscape and river – Level 4: Communities may assign different meanings to the territory and reject dense interventions.

Preferences for the use of public space – Level 3: Some prefer open green spaces, others prioritize connectivity and commerce.
→ Overall average: 3.5 (Medium–High).

Uncertainty about the environment

Dynamics of the local real-estate market – Level 4: Demand and land prices can change and affect the feasibility of densification.

Environmental conditions of the corridor and river –

Level 5: Risk of flooding, pollution, or hydrological changes.

Variation in pedestrian and vehicular flow – Level 3: Depends on sustainable-mobility measures and access.

Security and control of public space – Level 4: Intervention can reduce or increase perceived insecurity depending on maintenance.
→ Overall average: 4 (High).

Uncertainty about relational decisions

Coordination between public and private entities – Level 4: Differences in timing, resources, and priorities.

Effective community participation – Level 3: It is not always possible to involve all local actors.

Economic sustainability of local commerce – Level 3: May depend on incentives or pedestrian flows.

Management of urban maintenance – Level 4: Without institutional continuity, spaces deteriorate.
→ Overall average: 3.5 (Medium–High).

Uncertainty about disruptive events

Changes in urban policies or regulations – Level 3: Can modify building conditions and land uses.

Economic crises or inflation – Level 3: Affect investments and maintenance.

Natural disasters (floods, earthquakes) – Level 4: The corridor is associated with the river, increasing water-related vulnerability.

Insecurity or social conflicts – Level 2: Moderate risk but with high impact on citizens' perceptions.
→ Overall average: 3 (Medium).

PUJ - AI, choosing

Scheme SA:

Buildability	NORM	Ground-floor commerce	Densify
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Prompt: ¿Cuál es el nivel de incertidumbre según estas categorías considerando que existen incertidumbres sobre el entorno, incertidumbre sobre valores, incertidumbre sobre decisiones relacionadas e incertidumbres sobre eventos disruptivos. Basándose en el texto Lami y Todella (2019), facing urban uncertainty with the strategic choice approach

Situación	Rango (1-5)	Tipos de incertidumbre predominante	Nivel de incertidumbre
1. Percepción de inseguridad	2-4	Factores que cambian en el tiempo: percepción y seguridad ciudadana.	Alta – depende de factores sociales y temporales difíciles de controlar.
2. Interacción público-privada	2-4	Interacción compleja entre actores y control del espacio y decisiones relacionadas (diseño, normativas, gestión).	Medio-Alta – requiere coordinación entre actores y aceptación social.
3. Patrimonio (Cultura, Arte, Paisaje)	1-3	Interacción conservación, desarrollo y presión inmobiliaria, gestión de espacio.	Alta – fuerte conflicto entre identidad y renovación urbana.
4. Gestión del espacio público	2-4	Decisiones relacionadas (mantenimiento, mobiliario, ordenación de usos).	Medio – depende de gestión pública continua y colaboración ciudadana.
5. Habitabilidad	3-5	Decisiones relacionadas (normas de densidad, mezcla de usos) y presión inmobiliaria, confort.	Medio – más controlable mediante diseño arquitectónico.
6. Conectividad	3-5	Infraestructura, movilidad y gestión de espacios (obras, cierres, movilidad, etc.).	Medio-Alta – sujeto a factores externos y planificación inter-institucional.

En el escenario del comercio en primera planta con densificación de vivienda, el nivel de incertidumbre total se ubica entre 3.5 y 4, es decir, medio-alto, dominado por factores de entorno y valores, mientras que las incertidumbres de decisión y eventos actúan como moduladoras.

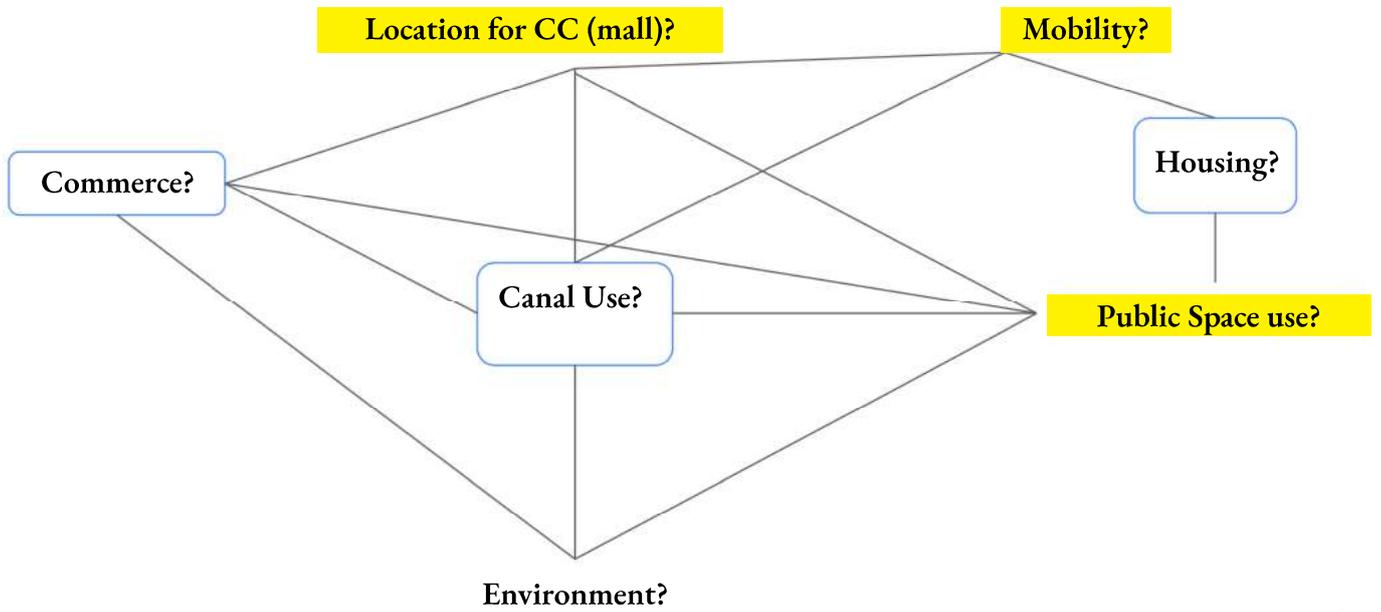
Prompt: What is the level of uncertainty according to these categories, considering that there is uncertainty about the environment, uncertainty about values, uncertainty about decisions, and uncertainty about disruptive events? Based on Lami and Todella (2019), Facing urban uncertainty with the Strategic Choice Approach.

In the scenario of ground-floor commerce with housing densification, the overall level of uncertainty lies between 3.5 and 4, that is, medium-high, dominated by environmental and value-related factors, while decision and event uncertainties act as modulators.

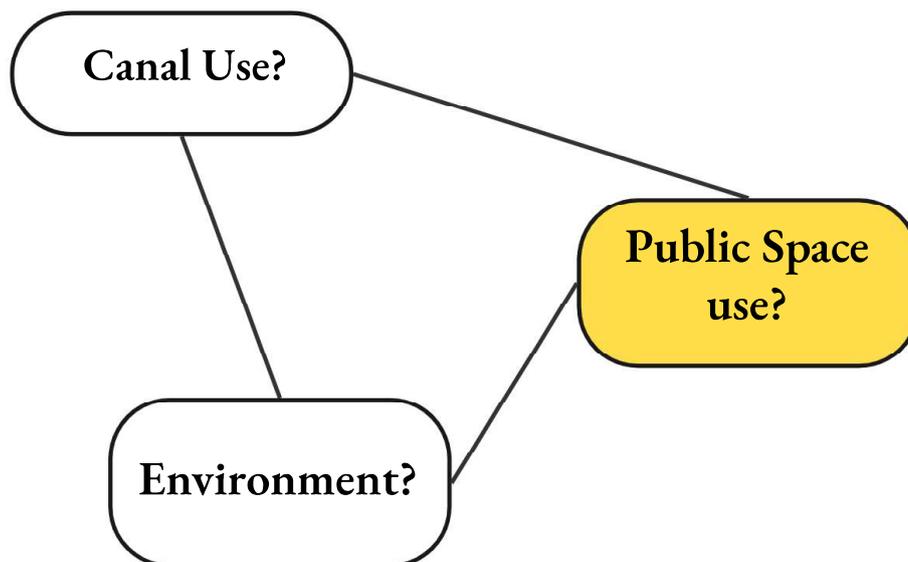
Dimension and type of predominant uncertainty in the comparison areas (top table)			
Comparison Area	Range	Types of predominant Uncertainty	Level of Uncertainty
INS	2 - 4	EU (changes in pedestrian dynamics and citizen security).	High – depends on social and temporal factors that are difficult to control.
PÚBL	2 - 4	UV (different views on openness or control of space) and UR (design, regulations, management).	Medium-High – requires coordination between actors and social acceptance.
PAT	1 - 3	UV (conservation vs. development) and UE (real-estate pressure, land-use changes).	High – strong conflict between identity and urban renewal.
EST	2 - 4	UR (maintenance, furniture, visual coherence).	Medium – depends on continuous public management and neighborhood collaboration.
HAB	3 - 5	UR (density rules, mix of uses) and UE (noise, ventilation, comfort).	Medium – more controllable through architectural design.
CON	3 - 5	UE (infrastructure, mobility) and UD (works, closures, road safety).	Medium-High – subject to external factors and inter-institutional planning.

Levels and Types of Uncertainty in the Ground-Floor Commerce Scenario (bottom table)			
Category of Uncertainty	Description applied to the urban context of ground-floor commerce	Examples within the case	Level (1-5)
Uncertainty about the working Environment (UE)	Refers to external conditions that are difficult to foresee: security, mobility, real-estate market, pedestrian behavior, or climate.	Variations in the perception of insecurity, changes in pedestrian flows, lighting, or land uses.	4-5
Uncertainty about guiding Values (UV)	Arises from differences in priorities and criteria among actors (neighbors, developers, authorities).	Conflict between heritage conservation and densification, openness to commerce, or residential use.	4
Uncertainty about Related decisions (UR)	Emerges from the interdependence among different management agendas: planning, design, public-space management, and regulation.	Lack of coherence between urban plans, mobility policy, and land-use regulations.	3
Uncertainty about disruptive events (UD)	Associated with unexpected events that modify the environment or social and economic dynamics.	Pandemics, commercial crises, violence, or transformations arising from changes in land use or mobility.	3-4

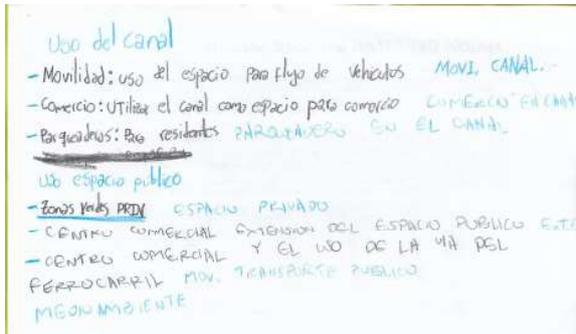
USB_A - Decision Graph and Problem Focus



miro



USB_A - Decision Options



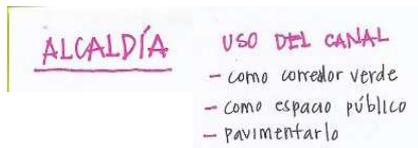
Developer

Canal Use:

- Movility: Use of the canal as space for vehicles (MOV. CANAL?)
- Commerce: Use of the canal space for commerce (mall) (CC?)
- Parking lots: For residents (Parking in the canal?)

Use of Public Space:

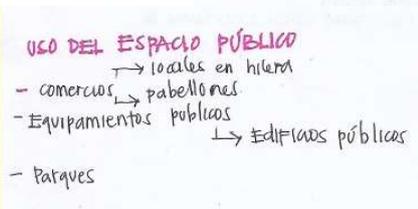
- Private Green Areas (Private Space?)
- Locate a Mall in the area for Public Space and along the railway (MOV. Public transportation - Environment?)



Mayorship

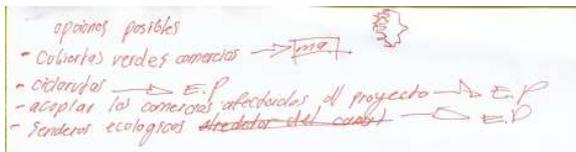
Canal Use:

- As Green Corridor
- As Public Space
- Pave over it



Use of Public Space:

- Commerce: Shops in the
- Commerce: pavilions
- Public Facilities
- Parks



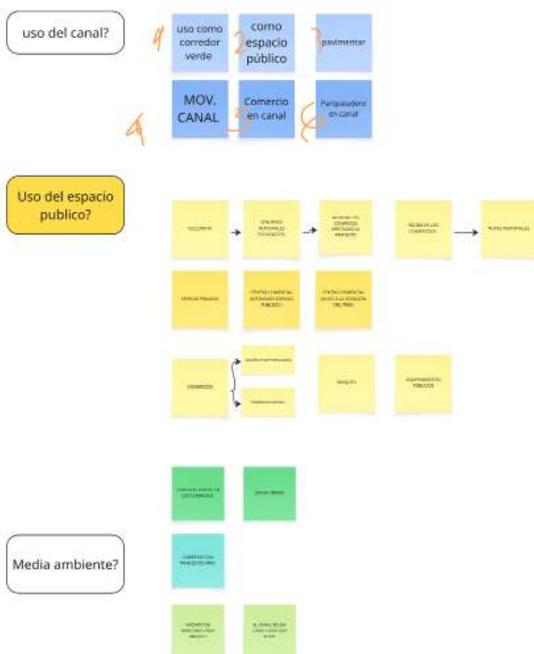
JAC

Canal Use:

- Green roofs above shops

Public Space (EP)

- bikelanes
- Integrate the affected businesses.
- Ecological Trails



Canal Use:

- As a green corridor
- As Public space
- Pave Over
- MOV. CANAL
- Commerce
- Parking

Public Space Use:

- Bikelanes - Ecological Trails - Integrate affected commerce
- Relocate commerce - Pedestrian routes
- As private space
- As a Mall (an extension of the public space)
- Mall, next to the train station
- Commerce - Shops in first floors
- Commerce . Extent pavilions
- Parks

Environment:

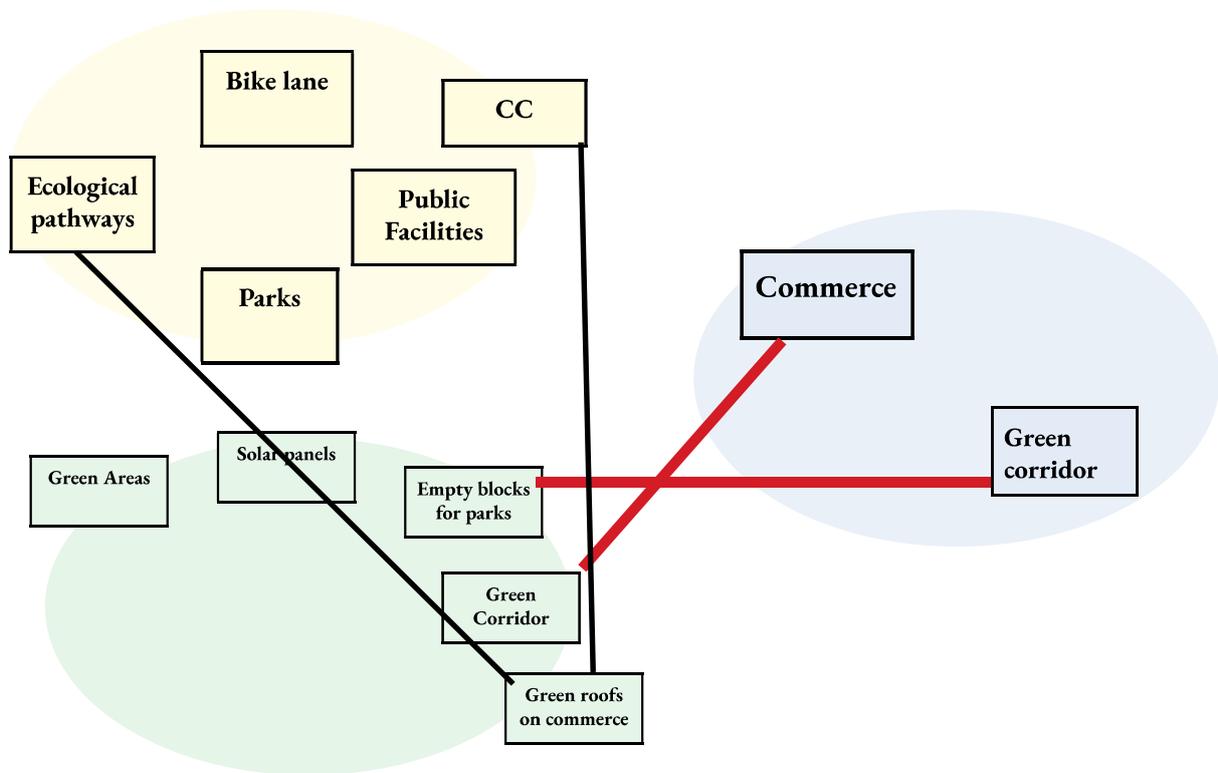
- green roofs on shops
- Green areas
- PV panels on roofs
- Empty squares to create new parks
- Canal as Green corridor

USB_A - Decision Options

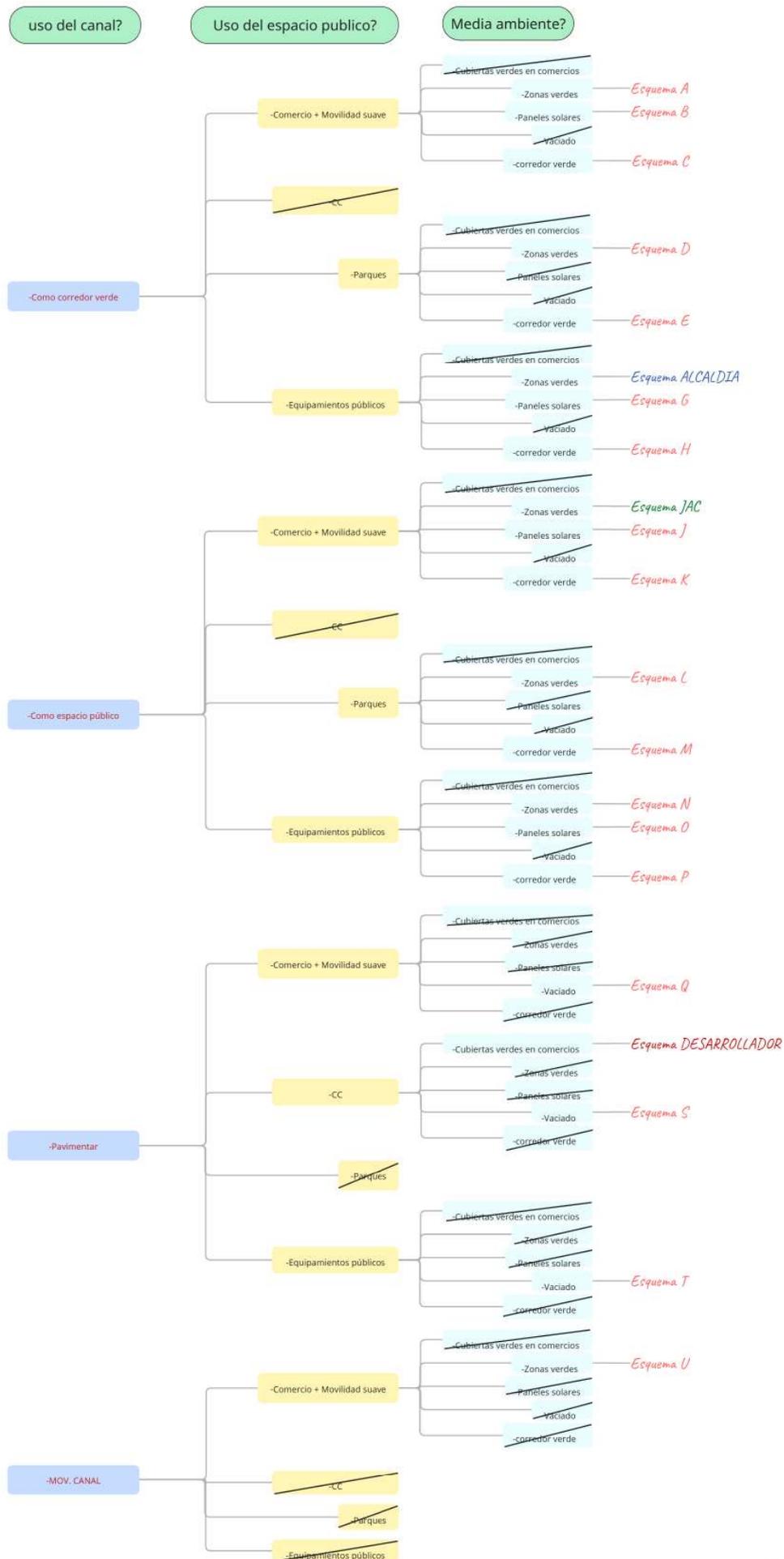
Translation of all Decision Option		
Decision Area	Option Label	Description
Canal use	As a green corridor	Linear ecological strip with native vegetation, runoff control, and pedestrian–cycle continuity; benefits climate and biodiversity but requires maintenance and inter-institutional agreements; low-cost gardens, benches, micro-gardens, and street furniture.
	As public space	Plazas, ponds, and playgrounds along the canal; active edge with programmed activities; improves appropriation and security but increases noise and conflicts if not managed; shaded furniture, playgrounds, micro-scenarios, and dry areas.
	To pave over / cover	Roofed cover for temporary uses or fairs; increases capital cost and immediate occupancy; reduces infiltration and can worsen micro-climate if not designed well.
	Canal for movement	Mobility axis that allows vehicle traffic along the canal and turns the area into a kind of highway.
	Canal commerce	Formal / semi-formal stands built along “islands” programmed for commerce; activates the canal; requires management (permits, schedules); modular kiosks, linear stalls, recycling points in concessions.
	Parking on the canal	Surface parking on specific canal sections to reduce pressure on surrounding streets.
Public space use	Commerce / soft mobility	Cycle paths and ecological walkways with existing commerce on the edges of the canal to activate façades and pedestrian flow.
	Relocate commerce and free the corridor	Move street vendors to designated areas so the canal can remain a continuous corridor without conflicts of use.
	Private space	Plazas or landscaped areas managed by private actors in exchange for secure access, but with a charge for use.
	Shopping mall as public space	Semi-public courtyards and passages, open 24/7, that connect the mall with the canal and mix uses.
	Shopping mall joined to the block	Continuous commerce along wide sidewalks; improves security and local economy.
	Public facilities	Library, cultural facilities, sports facilities, or social support centers with programs open to the neighborhood.
Environment	Green roofs on commerce	Roofs with substrate or vegetation to lower temperature, retain rainwater, and improve landscape; moderate CAPEX.
	Green areas	Permeable areas with trees and grass in sidewalks and edges; helps restore habitat and reduces heat; requires maintenance.
	Solar panels	Photovoltaic panels on the roofs of commercial / public buildings for self-consumption and energy export; high initial cost but medium- / long-term return.
	Block clearing	Vacating built blocks for parks; conversion of vacant lots into ecological buffers along the canal; high expropriation cost and requires management.
	Green corridor	Renaturalization of the canal with biofilters, riparian vegetation, and step-pool restoration; improves biodiversity and drainage; requires strong inter-institutional coordination.

USB_A - Option Bar and Option Graph

		Public Space Use				Environment		
		CC	Bike lane	Parks	Public Facilities	Green roofs on commerce	Solar panels	Green areas
Canal Use	Green corridor	X	O	O	O	X	O	O
	Public Space	O	O	O	O	X	O	O
	Pave over	O	O	X	O	X	X	X
	MOV. canal	O	O	X	O	X	X	O
	Commerce	O	X	X	X	O	O	X
	Parking	O	O	X	O	X	X	X



USB_A - Decision Scheme

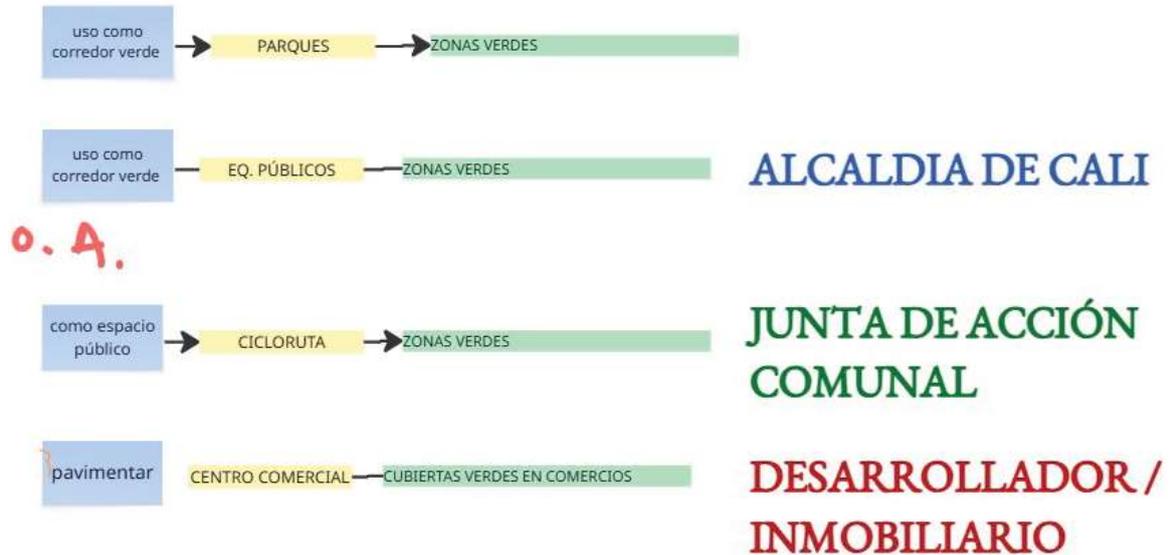


USB_A - Decision Scheme (in a table_translated)

Translation of all Decision Option				
Canal Use	Public Space Use	Environment	Decision schemes	
As green Corridor	Commerce + Soft mobility	Green Roofs		
		Green Areas	Scheme A	
		Solar Panels	Scheme B	
		Empty Block		
		Green Corridor	Scheme C	
	€€			
	Parks	Green Roofs		
		Green Areas		
		Solar Panels	Scheme D	
		Empty Block		
		Green Corridor	Scheme E	
	Public facilities	Green Roofs		
		Green Areas	Scheme ALCALDIA	
		Solar Panels	Scheme G	
		Empty Block		
		Green Corridor	Scheme H	
	As Public Space	Commerce + Soft mobility	Green Roofs	
			Green Areas	Scheme JAC
			Solar Panels	Scheme J
			Empty Block	
Green Corridor			Scheme K	
€€				
Parks		Green Roofs		
		Green Areas	Scheme L	
		Solar Panels		
		Empty Block		
		Green Corridor	Scheme M	
Public facilities		Green Roofs		
		Green Areas	Scheme N	
		Solar Panels	Scheme O	
		Empty Block		
		Green Corridor	Scheme P	

Translation of all Decision Option				
Canal Use	Public Space Use	Environment	Decision schemes	
Pave Over	Commerce + Soft mobility	Green Roofs		
		Green Areas		
		Solar Panels		
		Empty Block	Scheme Q	
		Green Corridor		
	CC	Green Roofs		Scheme DEVELOPER
		Green Areas		
		Solar Panels		
		Empty Block	Scheme S	
		Green Corridor		
	Parks			
	Public facilities	Green Roofs		
		Green Areas		
		Solar Panels		
		Empty Block	Scheme T	
		Green Corridor		
	MOV. Canal	Commerce + Soft mobility	Green Roofs	
			Green Areas	Scheme U
			Solar Panels	
			Empty Block	
Green Corridor				
€€				
Parks				
Public facilities				

USB_A - Chosen schemes



Translation of all Decision Option			
Canal Use	Public Space Use	Environment	Decision schemes
As green Corridor	Parks	Green Areas	
As green Corridor	Public facilities	Green Areas	MAYORSHIP
As Public Space	Bikelane	Green Areas	COMMUNITY (JAC)
Pave Over	CC	Green Roofs	DEVELOPER

USB_A - Comparison Areas

DEVELOPER

Socioeconomic

- Income / expenses
- Analysis of sale prices
- Properties for sale

Mobility

- Increased pedestrian flow
- Influence on traffic flow
- Increased vehicular flow

Facilities

- Flow of people
- Profitability of the facility

JAC

Strategic location

Centrality, main streets

Analyze the possibility that the project connects Calle 1 with Calle 5 and connects Calle 44.

Heritage / Identity

Tourist opportunity, making it known

Study nature-based tourism (green corridor).

Facilities

Create facilities that attract the public

Analyze the needs of the area.

Public space

Create paths and parks to shape and link the public space

Analyze existing parks and design new routes that connect them to the main streets.

Mayorship

Cultural / Identity

For the life that is proposed in the public space (inhabiting)

Survey.

Environmental / Landscape

Integration of nature into the built space

Analysis of environmental and landscape data / design proposal.

Management / Governance

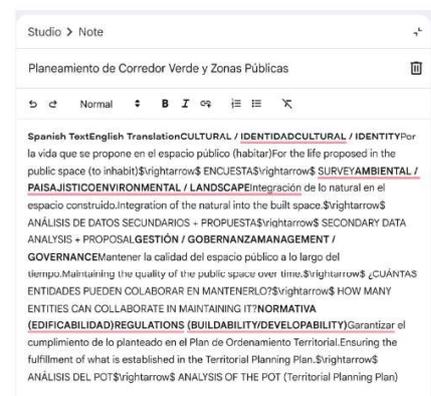
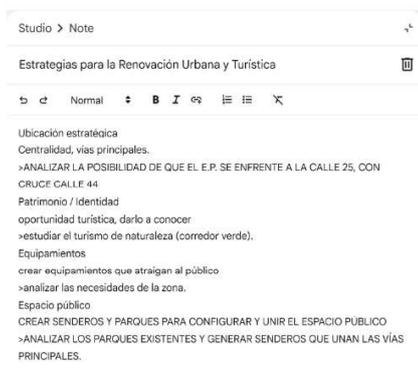
Maintain the quality of public space over time

How many entities can participate in maintenance?

Regulation (Buildability)

Guarantee compliance with what is set out in the Land-Use Plan

Analysis of the land-use plan (POT)



Comparison areas from each group as a source in NotebookLM

USB_A - Comparison Areas
- ranges (1: least desirable; 5: most desirable)

Role	category	1	2	3	4	5
D	Socioeconomic	Minimal income or losses; low real-estate demand.	Low income; unstable market; little investment.	Balance between income and expenses; steady sales.	Market growth; moderate increase in prices and supply.	High profitability: rising land values and sustained real-estate dynamism.
D	Mobility	Increased traffic and congestion; low accessibility.	Irregular vehicular flow; no improvement in pedestrian conditions.	Stable pedestrian and vehicular flow; controlled congestion.	Higher pedestrian flow; partial reduction in traffic.	Significant increase in pedestrian flow; integration with public transport and reduction of vehicular traffic.
D+J	Facilities	Empty or underused facilities, with no public amenities or abandoned spaces.	Few unattractive facilities, with low foot traffic and limited profitability	Moderate use with stable profitability, featuring functional facilities but low attendance.	High occupancy and constant flow of people. Spaces with regular activity and basic services.	Highly profitable, well-designed facilities with a continuous flow of users, sustainable services, and strong neighborhood appeal.
J	Strategic Location	Remote location, with no connection to main roads or centrality.	Partially nearby but without functional access.	Accessible location, but with low visibility or connectivity.	Good connection to main roads and local transport.	Strategic, central, and visible location, with a crossing over Calle 25 and 44.
J	Public Space	Deteriorated or non-existent spaces.	Isolated spaces without integration.	Presence of parks or paths, but scattered.	Functional parks and paths that partially connect the area.	Articulated public space: paths and parks that connect the main roads, fostering social cohesion.
J+A	Heritage / Identity / Cultural	No local identity or cultural recognition. Public Space without urban life; absence of local identity.	Weak identity; little appreciation of existing heritage. Little-used spaces, with low perception of safety	Part of the identity is preserved but not disseminated. Presence of occasional activities without continuity.	Recovers local character and promotes cultural values. Inhabited spaces with constant urban life.	Promotes nature tourism (Green Corridor) and showcases local heritage. Lively public; promotes culture and social interaction.
A	Environmental / Landscape	Presence of pollution or visual deterioration.	Poorly harmonized landscape.	Partial integration of natural elements.	Space balanced between the natural and the built.	Full ecological integration and aesthetically appealing
A	Management / Governance	Lack of maintenance ; no institutional coordination.	Dependent on external resources.	Maintenance but without sustainability strategies.	Coordination among local entities for continuous maintenance.	Solid management: multiple entities collaborate, guaranteeing long-term sustainability.
A	Regulatory (Buildability)	Does not comply with urban regulations or the Land-Use Plan (POT).	Partial compliance without control.	Basic technical compliance.	Comprehensive compliance with institutional supervision.	Full compliance with the POT and alignment with territorial planning objectives.

USB_B - Decision Areas

Alcaldía:



- Does this seem like a good location to carry out the project? - **Location?**
- What type of mobility will be prioritized in the area? - **Mobility?**
- What would happen to the informal and formal housing settlements in this area? - **Formal and informal housing?**
- *What positive or negative socioeconomic impacts would this project bring?* - **Consequences?**
- *What environmental impact would the project have on the area?* - **Environmental?**

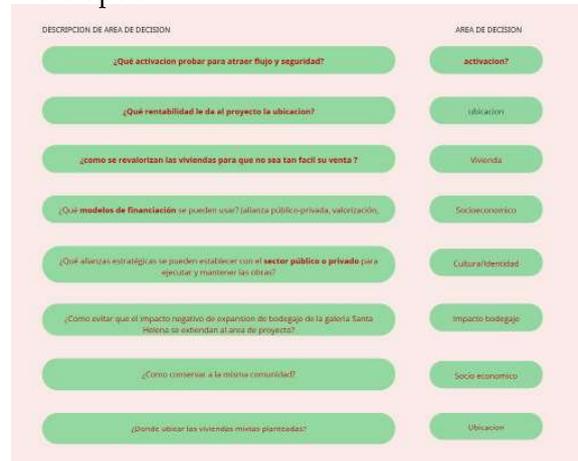


How can the vehicle flow for access to the neighborhoods in the area be mitigated? - **Heard?**

How would the project integrate into the local economy without affecting shopkeepers? - **Heard?**

Considering that around the area there is important equipment for the city (the Santa Elena market hall, Simón Bolívar bus terminal, Mariano Ramos sports zone), what facilities do you propose to unify these amenities and benefit us as a community? - **Facilities?**

Developer:



- What profitability does the location give the project? - **Location.**
- How can the housing be revalued so that its sale is not so easy? - **Housing.**
- What financing models can be used? (public-private partnership, betterment levy, ...) - **Socioeconomic.**
- What strategic alliances can be established with the public or private sector to execute and maintain the works? - **Culture / Identity.**
- How can the negative impact of the expansion of warehousing from the Santa Helena gallery be prevented from spreading into the project area? - **Warehousing impact.**
- How can the same community be preserved? - **Socioeconomic.**
- Where should the proposed mixed housing be located? - **Location.**

USB_B - Decision Areas: Compilation of descriptions

¿Cómo mitigar el flujo vehicular para el acceso a los barrios del sector?

How can vehicle flow be reduced for access to the neighborhoods in the sector?

¿Cómo el proyecto integraría a la economía local sin afectar a los comerciantes?

How would the project integrate into the local economy without affecting shopkeepers?

Teniendo en cuenta que al rededor del sector hay equipamiento importante para la ciudad (la galería de Santa Elena, Terminal Simón bolívar, Zona deportiva de Mariano Ramos) ¿qué equipamiento proponen para unificar estos equipamientos y nos beneficie como comunidad?

Considering that around the sector there is important equipment for the city (Santa Elena market hall, Simón Bolívar terminal, Mariano Ramos sports area), what facilities do you propose to unify these and benefit us as a community?

¿Qué activacion probar para atraer flujo y seguridad?

What activation could be tested to attract flow and safety?

¿Qué rentabilidad le da al proyecto la ubicacion?

What profitability does the location give to the project?

¿como se revalorizan las viviendas para que no sea tan facil su venta ?

How can the homes be revalued so that their sale is not so easy?

¿Qué modelos de financiación se pueden usar? (alianza público-privada, valorización,

What financing models can be used? (public-private partnership, valorization, etc.)

¿Qué alianzas estratégicas se pueden establecer con el sector público o privado para ejecutar y mantener las obras?

What strategic alliances can be established with the public or private sector to execute and maintain the works?

¿Como evitar que el impacto negativo de expansion de bodegaje de la galería Santa Helena se extiendan al area de proyecto?

How can the negative impact of warehouse expansion from the Santa Helena market hall spreading into the project area be avoided?

¿Como conservar a la misma comunidad?

How can the same community be preserved?

¿Donde ubicar las viviendas mixtas planteadas?

Where should the proposed mixed housing be located?

¿Cómo garantizar cruces seguros y accesos cómodos a la estación/nodo en 39-42?

How can safe and comfortable crossings and access to the station/node at 39-42 be guaranteed?

¿Te parece una buena ubicación para ejecutar el proyecto?

Do you think this is a good location to carry out the project?

¿Cómo afectaría este proyecto la movilidad del sector?

How would this project affect the sector's mobility?

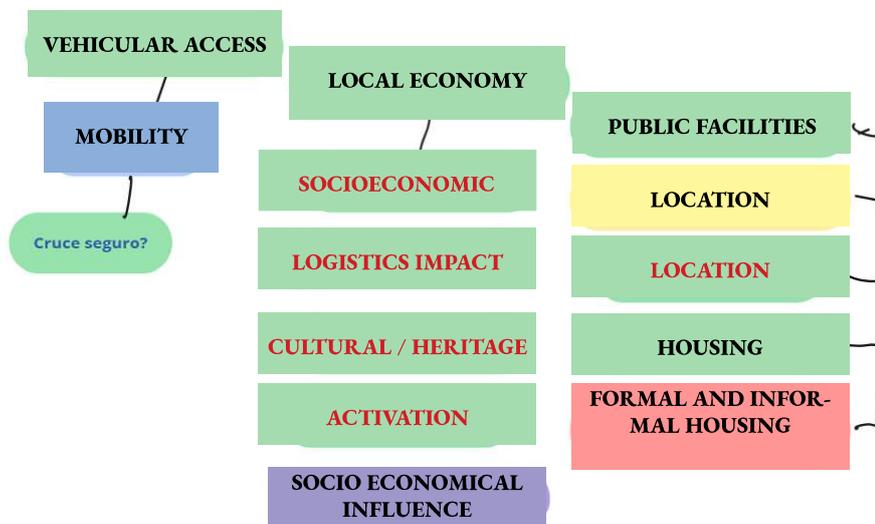
¿Que pasaría con los asentamientos de viviendas informales y formales de este sector?

What would happen to the informal and formal housing settlements in this sector?

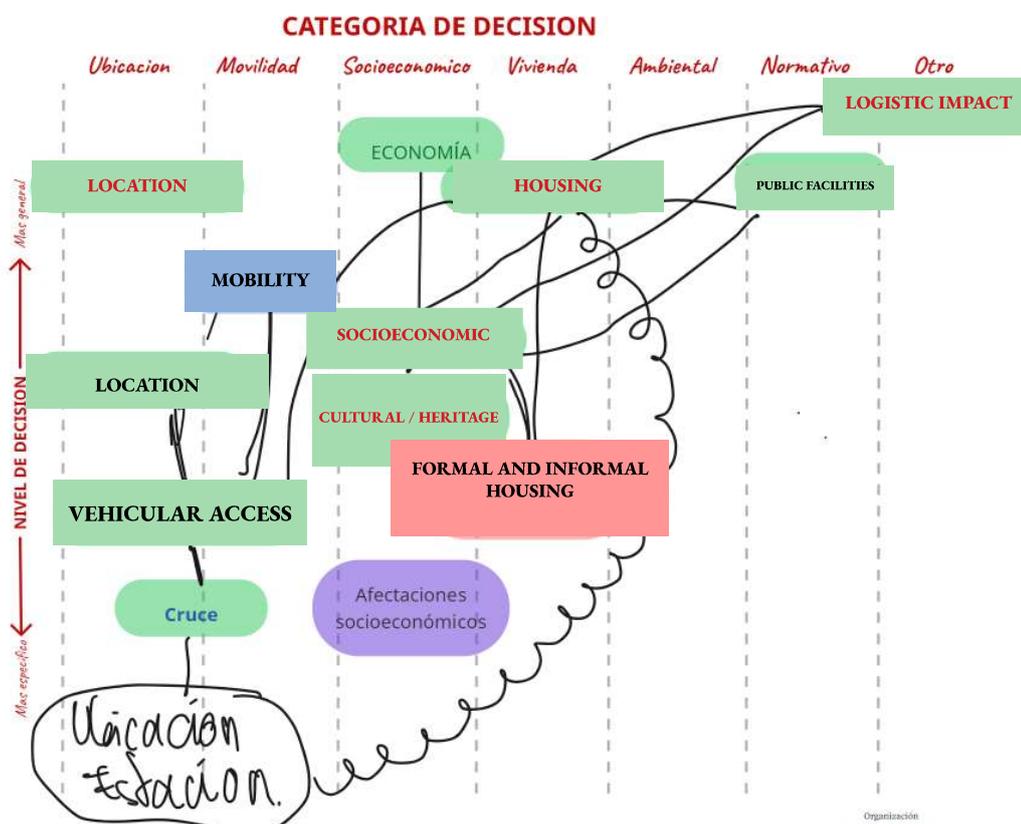
¿Que afectaciones socioeconómicas positivas o negativas traería este proyecto?

What positive or negative socioeconomic effects would this project bring?

USB_B - Decision Graphs



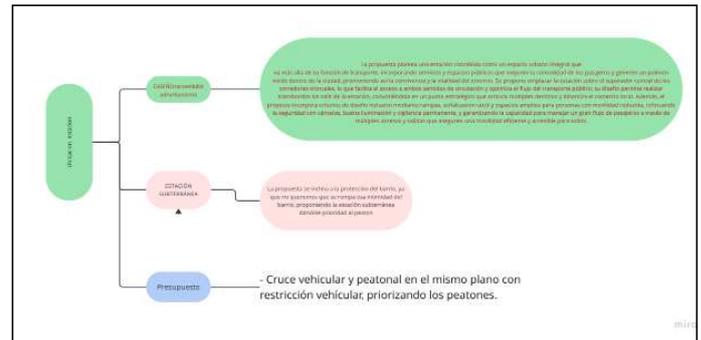
LOCATION



Puede ser útil reorganizar las áreas de decisión por campos o niveles, o ambos, cuando una lista no estructurada parezca demasiado larga o compleja. Esto puede ayudar a redefinir o agrupar áreas de decisión similares; a considerar la posibilidad de una estructura de problema multinivel; y a elegir un enfoque del problema cuando existen muchas áreas de decisión. (Figura 36)



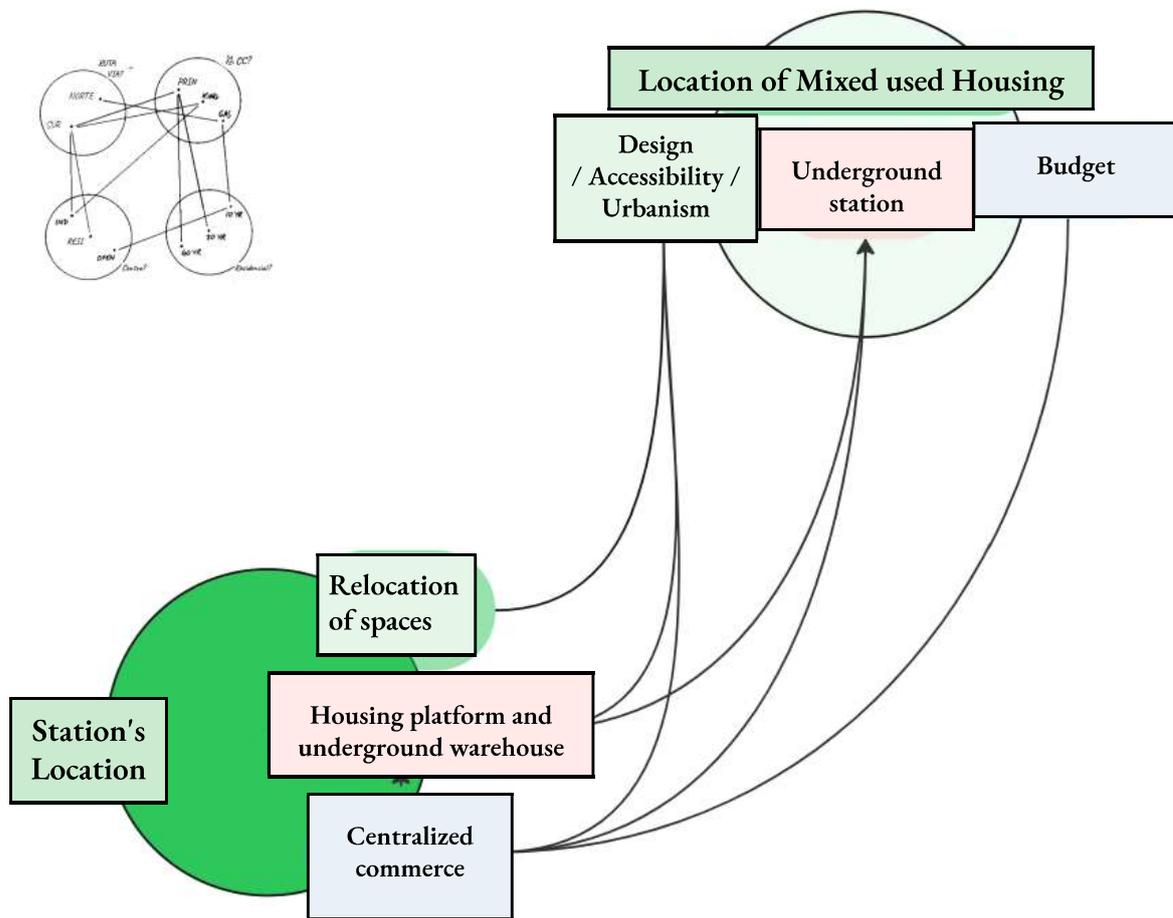
USB_B - Decision Options



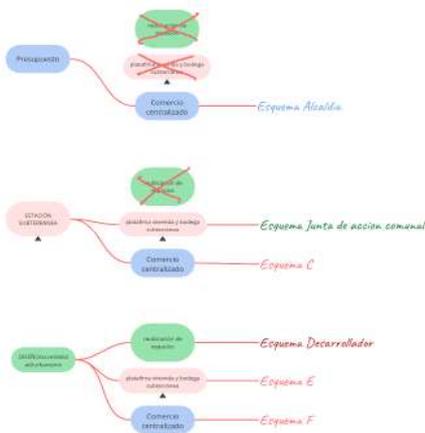
Decision area	Decision option	description
Mixed use housing location	Relocation of spaces	The invasion of space by warehouses occurs in the southern part, along 23rd Street, where the main problem of urban impact is concentrated. To optimize land use, it is proposed to relocate the warehouses to 26th Street, allowing the frontage along 25th Street to acquire a more commercial character and help improve mobility in the area. In addition, the implementation of mixed-use housing of approximately five stories is proposed, with commercial premises on the ground floor along 25th Street, maintaining the characteristic urban language of the Santa Elena center. This intervention seeks to revitalize the surroundings, reduce the feeling of desolation, and encourage the emergence of new commercial and residential spaces that will energize the area.
	Housing platform and underground warehouse	Apartment buildings with one or two floors of commercial platform and residential towers, with basement levels for storage and logistics.
	Centralized commerce	Residential buildings and housing. Commerce in a food-supply center.
Station location	Design / Accessibility / Urbanism	The proposal envisions a station conceived as an integrated urban space that goes beyond its transport function, incorporating services and public spaces that improve passenger comfort and create a green lung within the city, thus promoting coexistence and vitality in the surrounding area. It proposes locating the station on the central median of the main corridors, which facilitates access to both directions of traffic and optimizes public transport flow; its design allows transfers to be made without leaving the station, turning it into a strategic point that connects multiple destinations and stimulates local commerce. In addition, the project incorporates inclusive design criteria through ramps, tactile signage, and generous spaces for people with reduced mobility, reinforcing safety with cameras, good lighting, and permanent surveillance, and ensuring the capacity to handle a large flow of passengers through multiple entrances and exits that guarantee efficient and accessible mobility for everyone.
	Underground station	The proposal leans toward protecting the neighborhood, avoiding a break in the community's intimacy by placing the station underground and giving priority to pedestrians.
	Budget	Vehicular and pedestrian crossing on the same level with vehicle restrictions, prioritizing pedestrians.

USB_B - Option Bar and Option Graph

		Location of Mixed used Housing		
		Design / Accessibility / Urbanism	Underground station	Budget
Station's Location	Relocation of spaces	O	X	X
	Housing platform and underground warehouse	O	O	X
	Centralized commerce	O	O	O



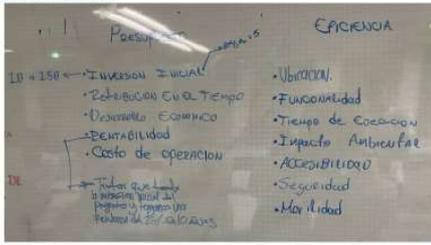
USB_B - Decision Scheme (in a table_translated)



Translation of all Decision Option		
Location of Mixed used Housing	Station's Location	Decision schemes
Design / Accessibility / Urbanism	Relocation of spaces	
	Housing platform and underground warehouse	
	Centralized commerce	Alcaldías's Scheme
Underground station	Relocation of spaces	
	Housing platform and underground warehouse	JAC's Scheme
	Centralized commerce	Scheme c
Budget	Relocation of spaces	Developer's Scheme
	Housing platform and underground warehouse	Scheme E
	Centralized commerce	Scheme F

USB_B - Comparison Areas

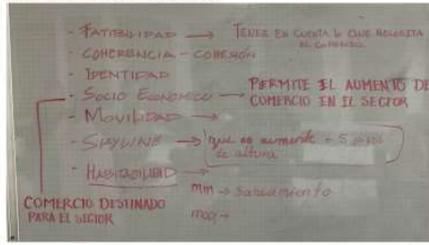
ALCALDIA DE CALI



Evaluación de Áreas de Comparación — Alcaldia de Cali

Categoría	1. Muy Bajo	2. Bajo	3. Medio	4. Alto	5. Muy Alto / Ideal
Factibilidad	Alta inversión en infraestructura (10-15 millones COP)	Alta inversión (10-15 millones COP)	Inversión media (5-10 millones COP)	Inversión media (5-10 millones COP)	Inversión baja (1-5 millones COP)
Coherencia / Cohesión	Alta inversión en infraestructura (10-15 millones COP)	Alta inversión (10-15 millones COP)	Inversión media (5-10 millones COP)	Inversión media (5-10 millones COP)	Inversión baja (1-5 millones COP)
Identidad	Alta inversión en infraestructura (10-15 millones COP)	Alta inversión (10-15 millones COP)	Inversión media (5-10 millones COP)	Inversión media (5-10 millones COP)	Inversión baja (1-5 millones COP)
Socio-económico	Alta inversión en infraestructura (10-15 millones COP)	Alta inversión (10-15 millones COP)	Inversión media (5-10 millones COP)	Inversión media (5-10 millones COP)	Inversión baja (1-5 millones COP)
Movilidad	Alta inversión en infraestructura (10-15 millones COP)	Alta inversión (10-15 millones COP)	Inversión media (5-10 millones COP)	Inversión media (5-10 millones COP)	Inversión baja (1-5 millones COP)
Habitabilidad	Alta inversión en infraestructura (10-15 millones COP)	Alta inversión (10-15 millones COP)	Inversión media (5-10 millones COP)	Inversión media (5-10 millones COP)	Inversión baja (1-5 millones COP)

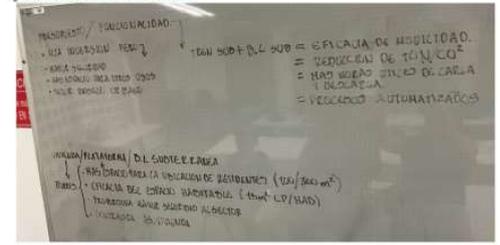
DESARROLLADOR / INMOBILIARIO



Evaluación de Áreas de Comparación — Desarrolladores Privados

Categoría	1. Muy Bajo	2. Bajo	3. Medio	4. Alto	5. Muy Alto / Ideal
Factibilidad	No factible: condiciones técnicas o comerciales negativas.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Coherencia / Cohesión	No hay coherencia entre los planes de desarrollo y el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Identidad	No hay identidad con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Socio-económico	No hay socio-económico con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Movilidad	No hay movilidad con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Habitabilidad	No hay habitabilidad con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.

JUNTA DE ACCIÓN COMUNAL



Evaluación de Áreas de Comparación — Junta de Acción Comunal (JAC)

Categoría	1. Muy Bajo	2. Bajo	3. Medio	4. Alto	5. Muy Alto / Ideal
Factibilidad	Alta inversión en infraestructura o gastos excesivos.	Alta inversión (10-15 millones COP)	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Coherencia / Cohesión	No hay coherencia entre los planes de desarrollo y el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Identidad	No hay identidad con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Socio-económico	No hay socio-económico con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Movilidad	No hay movilidad con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.
Habitabilidad	No hay habitabilidad con el desarrollo actual.	Alta inversión en infraestructura o gastos excesivos.	Factible con limitaciones o gastos excesivos.	Cumple la mayoría de condiciones con pocos gastos.	Satisfacción sobre las condiciones técnicas, comerciales y financieras.

Left column – “Budget”
 Initial investment
 Return over time
 Economic development
 Profitability
 Operating cost

Handwritten note: “Try to estimate the project’s initial investment and achieve a 25% return in 10 years.”

Right column – “Efficiency”
 Location
 Functionality
 Execution time
 Environmental impact
 Accessibility
 Safety
 Mobility

Feasibility → Take into account what commerce needs.
 Coherence – cohesion
 Identity
 Socio-economic → Allows an increase of commerce in the sector
 Mobility
 Skyline → So that building height does not increase beyond 5 floors
 Habitability →
 Bottom text:
 “Commerce intended for the sector.
 Min → sanitation
 Max →” (incomplete)

Budget / Functionality
 High investment, but:
 Greater safety
 More space for other uses
 Better urban landscape
 “Underground train + underground logistics platform =
 Mobility efficiency
 Reduction of tons of CO₂
 More usable hours for loading and unloading
 Automated processes”
 Housing / Platform / Underground logistics
 Towers →
 More space for locating residents (100–300 m²)
 Efficient habitable space (15 m² per person/dwelling)
 Provides greater security for the sector
 Brings housing closer to the sector

USB_B - Comparison Areas: Developer



The Developer's Decision Scheme prioritizes economic profitability, urban efficiency, and mixed integration through design, accessibility, and urbanism. To achieve these goals via an Urban Renewal Partial Plan (PPRU), the design must focus on priorities that ensure financial viability (its integrating criterion) and effective land management.

When designing the Partial Plan, the developer should prioritize the following aspects, which are instrumental in capitalizing on the area's economic potential while complying with urban and legal conditions:

1. Monetization and management of buildability (value capture)

The main priority of the PPRU must be to maximize development potential in order to justify the investment and ensure profitability. This is done by leveraging the urban-renewal regulatory framework:

Ensuring increased buildability: The Partial Plan design must justify lifting the current height and land-use restrictions (two stories / housing only) imposed by the Land-Use Plan (POT). The Partial Plan is the instrument that defines a new set of development rights, allowing redensification of the area (potentially up to 5–7 stories, or maximum floor-area ratios of 4.0 in centralities).

Capturing value (plusvalía): The design must include adjustments to buildability rules and renewal treatments to generate land-value increases and obtain contributions tied to greater development rights. Although Urban Renewal Partial Plans do not themselves charge for increased buildability, they can grant higher development potential than currently allowed, making the project profitable for private investment.

2. Logistical efficiency and parcel reconfiguration

The developer's scheme includes relocating spaces and using a Housing Platform with Underground Warehouse. For this to be viable, the PPRU must prioritize land management and solving the mobility problem:

Implementing land-management instruments: Since the Partial Plan is the tool that Law 388 assigns to manage land-policy instruments, the design must prioritize reconfiguring property structures through parcel consolidation and land readjustment. This is essential to create the Urban Development Units (UAU) needed to assemble the area required for the underground platform and centralized commerce.

Designing underground logistical solutions: The design must integrate the underground platform for warehouses and housing, which is key to mitigating surface-level traffic and mobility chaos by resolving the blockage of vehicle and pedestrian routes caused by loading and unloading activities.

3. Regulatory compliance for mixed uses and urban coherence

The developer seeks mixed integration and sustainable development. The PPRU must materialize this by following the R3 Urban Renewal treatment requirements:

Integrating mandatory uses: The design must comply with R3 regulations by allocating at least 30% of usable floor area to commercial and service uses and at least 15% of usable floor area to Social Interest Housing (VIS).

Heritage integration (BIC): Although the PEMP is the main instrument for the Cultural Heritage Asset (BIC), the Partial Plan design, being within the PEMP's area of influence, must demonstrate full coherence and high habitability standards, and must ensure the protection and enhancement of the Santa Elena Market BIC.

Addressing informality: The design must incorporate a Centralized Commerce and Social Management component that enables the formalization and reorganization of economic activities, in line with the Socially Responsible Territory (TSR) vision. This approach helps prevent the displacement of existing residents and merchants, which is a requirement of the urban-renewal treatment.

USB_B - Comparison Areas: JAC



The Decision Scheme of the Community Action Board (JAC) for the Santa Elena Market area is defined by a combination of options that prioritizes quality of life, safety, and preservation of neighborhood character over choosing the cheapest transport solution.

The JAC's scheme opts for the Underground Station (Option E), the Housing Platform with Underground Warehouse, and Centralized Commerce.

For the design of the Urban Renewal Partial Plan (PPRU), the JAC should prioritize the following elements to materialize its vision:

1. Priority for underground design and urban continuity

The main design priority, derived from choosing the Underground Station, is to guarantee the integrity of the neighborhood fabric and free up public space at ground level.

Underground rail implementation: The PPRU must ensure the technical and financial feasibility of the underground station (Option E) for the Commuter Train. This option is chosen specifically to protect the neighborhood's identity and avoid the fragmentation or surface impacts that an at-grade project could cause.

Surface recovery and pedestrian priority: By taking mass transport and logistics underground (Underground Station and Underground Platform), the Partial Plan design must prioritize recovering the surface for pedestrians and for urban continuity. The expected result of the underground option is pedestrian priority and reduced noise and vehicle traffic.

2. Safety and separation of uses

The JAC scheme emphasizes safety and coexistence, achieved through a clear functional separation between logistical activities and residential/commercial ones.

Underground logistics zoning: The Partial Plan design must regulate underground use for warehouses and logistics (Underground Platform), complying with safety and efficiency standards. This is vital to ensure high mobility efficiency and safety through potentially automated underground processes.

Centralized and controlled commerce model: The PPRU must design the integration of Centralized Commerce, aligned with the JAC's need for clearly differentiated and controlled residential and logistical spaces. This helps mitigate surface-level mobility and traffic chaos and addresses informality in the sector.

Controlling mobility chaos: Because it focuses on safety, the JAC requires the PPRU design to solve the long-standing problem of blocked vehicle and pedestrian routes caused by commercial and loading/unloading activities.

3. Social management and sustainability (Socially Responsible Territory – TSR)

To achieve the JAC's community-based vision, the Partial Plan must prioritize the social component and the permanence of current actors:

Permanence and participation: The PPRU design must incorporate the Socially Responsible Territory (TSR) approach, promoting the permanence of existing residents and merchants and avoiding gentrification. The design should result from social dialogue and shared responsibility among stakeholders.

Re-use of space: The PPRU must design the new public-space structure resulting from the project, seeking to mitigate urban and environmental impacts, and must address basic sanitation, sorting, and use of waste generated by supply activities (40 tons of solid waste per day).

Land-management mechanisms: For the underground scheme to be viable, the Partial Plan must define land-management strategies and instruments (such as land consolidation or readjustment) that allow owner participation and make it possible to implement the renewal project.

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