

# Feasibility of Stakeholder Management to improve Integration and Communication using BIG ROOM, LEAN CONSTRUCTION, PMBOK AND PRINCE2 in Multifamily Projects in Times of Change

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# AGENDA

- I. MASTER DATA
- II. DATA ANALYSIS
- III. DECISION MAKING
- IV. CONCLUSIONS

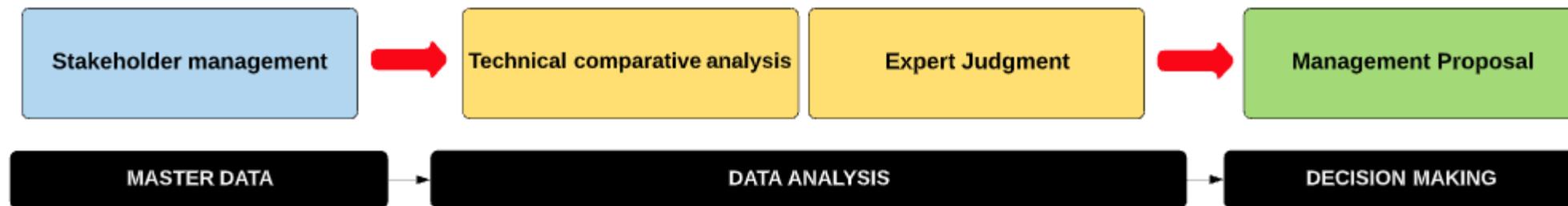


Figure 1. Study methodology flowchart

# I. MASTER DATA

Information was gathered from three main sources: Lean Construction, PMBOK6 and PRINCE2

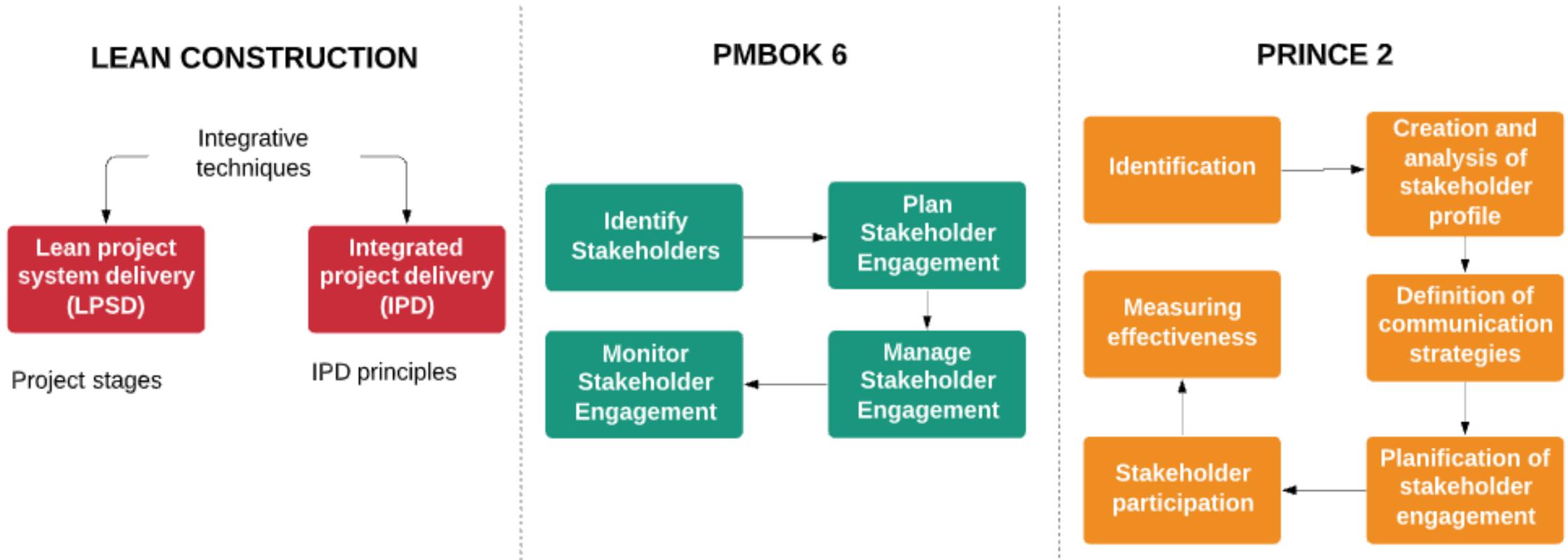


Figure 2. Stakeholder management structure of Lean Construction, PMBOK6 and PRINCE2

## II. DATA ANALYSIS

This table was prepared based on the research proposal that consist of three phases:

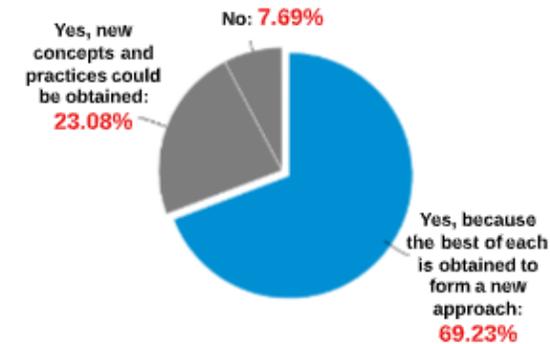
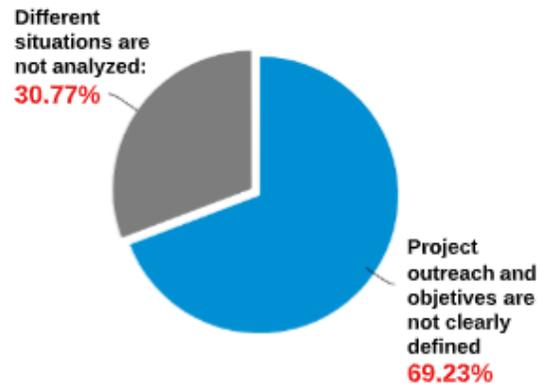
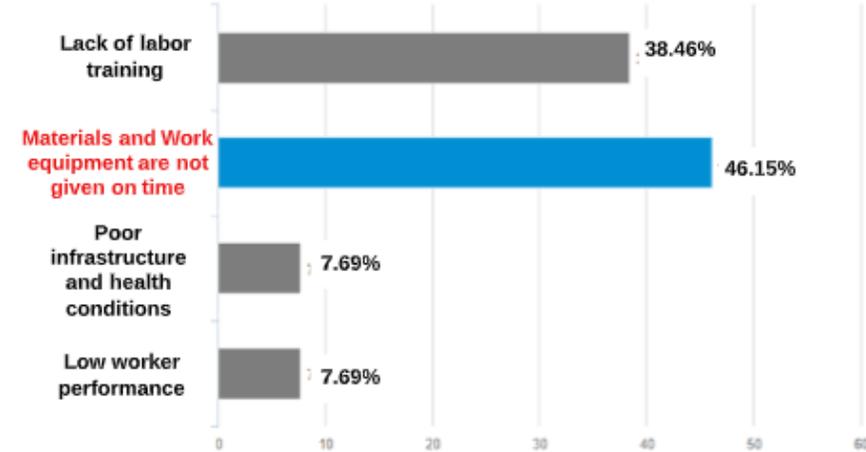
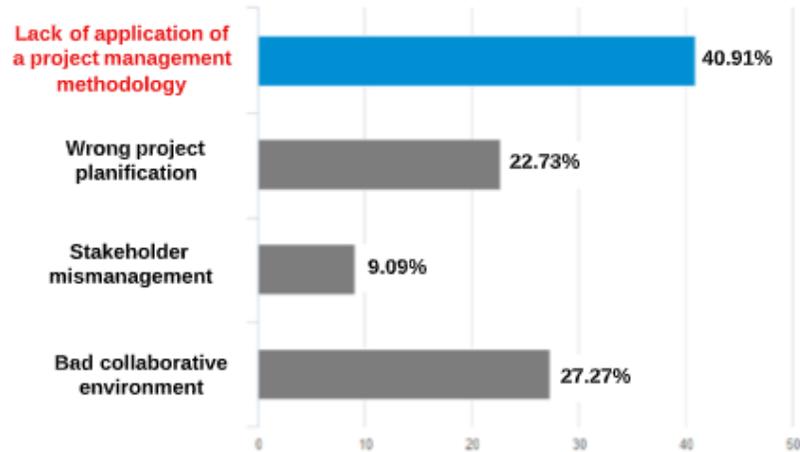
1. Stakeholder Identification
2. Stakeholder management planning
3. Execution of stakeholder management

	Lean Construction	PMBOK 6	PRINCE 2
<b>1</b>	LPSD <b>concisely defines</b> the client's propositions and the interests of all stakeholders	The <b>charter project</b> is a source of information that identifies and analyzes the impact of each stakeholder on the project.	The identification, <b>creation and analysis of profiles</b> is where the roles and responsibilities of each person are defined.
<b>2</b>	The <b>IPD principles</b> are promoted for good communication between each of the stakeholders. In addition, the organizational structure is planned in a <b>manner consistent</b> with the needs and constraints of each stakeholder.	The <b>project management plan</b> is presented in which approaches are developed using techniques and tools to involve stakeholders in their needs, expectations and interests.	<b>Stakeholder participation</b> is planned here by defining communication methods and strategies to encourage the involvement of all stakeholders.
<b>3</b>	<b>Stakeholder participation</b> is planned here by defining communication methods and strategies to encourage the involvement of all stakeholders.	Incidents, changes, lessons learned <b>are addressed</b> to encourage <b>appropriate participation</b> by everyone	The communication and stakeholder involvement plan is <b>carried out</b> at all stages of <b>project implementation</b> .

**Table 1.** Technical comparative analysis

## II. DATA ANALYSIS

A survey was conducted among experienced engineers and experts in the field of project management in buildings to analyze the problem in Peru and corroborate the feasibility of the research topic. (expert's judgment)



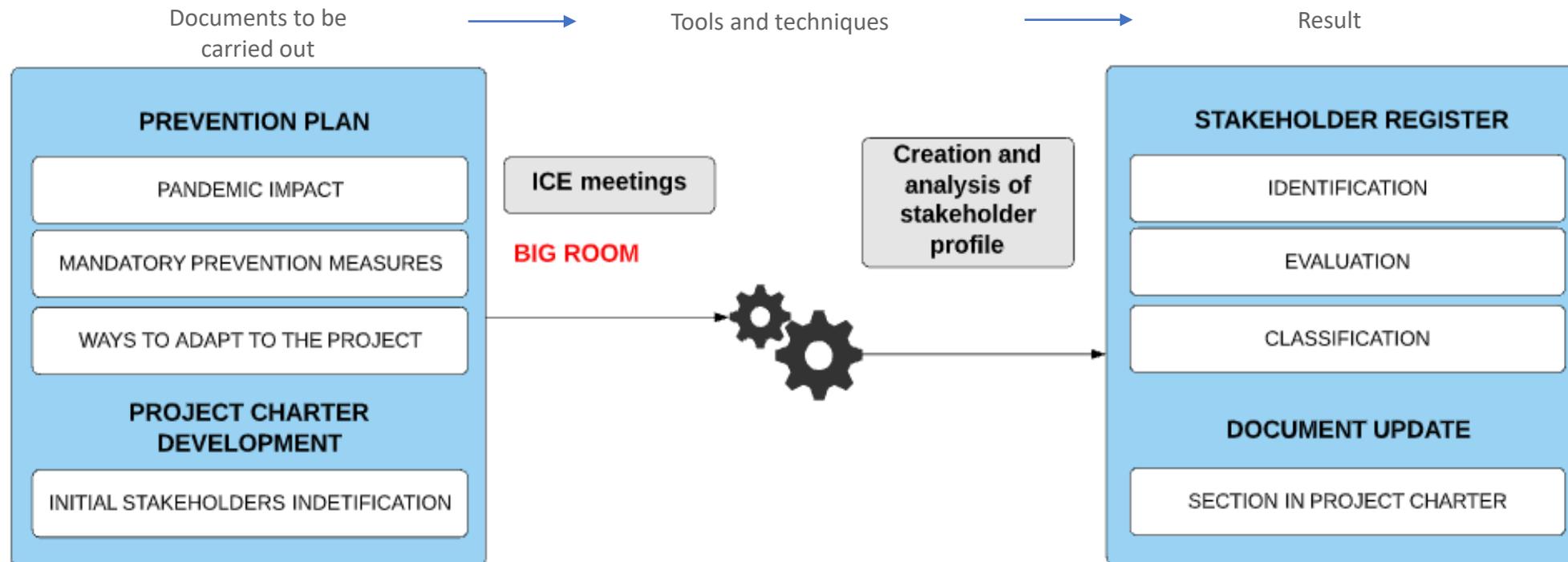
**Figure 3.** Most recurrent causes of inefficient multifamily project management and main problems in project planning in Peru.

**Figure 4.** Reasons for poor on-site execution in multifamily projects in Peru and the percentage of feasibility of the subject of this article.

# III. DECISION MAKING

The following is a detailed explanation of the proposal that focuses on stakeholder management with the integration of the aforementioned study methodologies.

## Phase 1: Stakeholder Identification

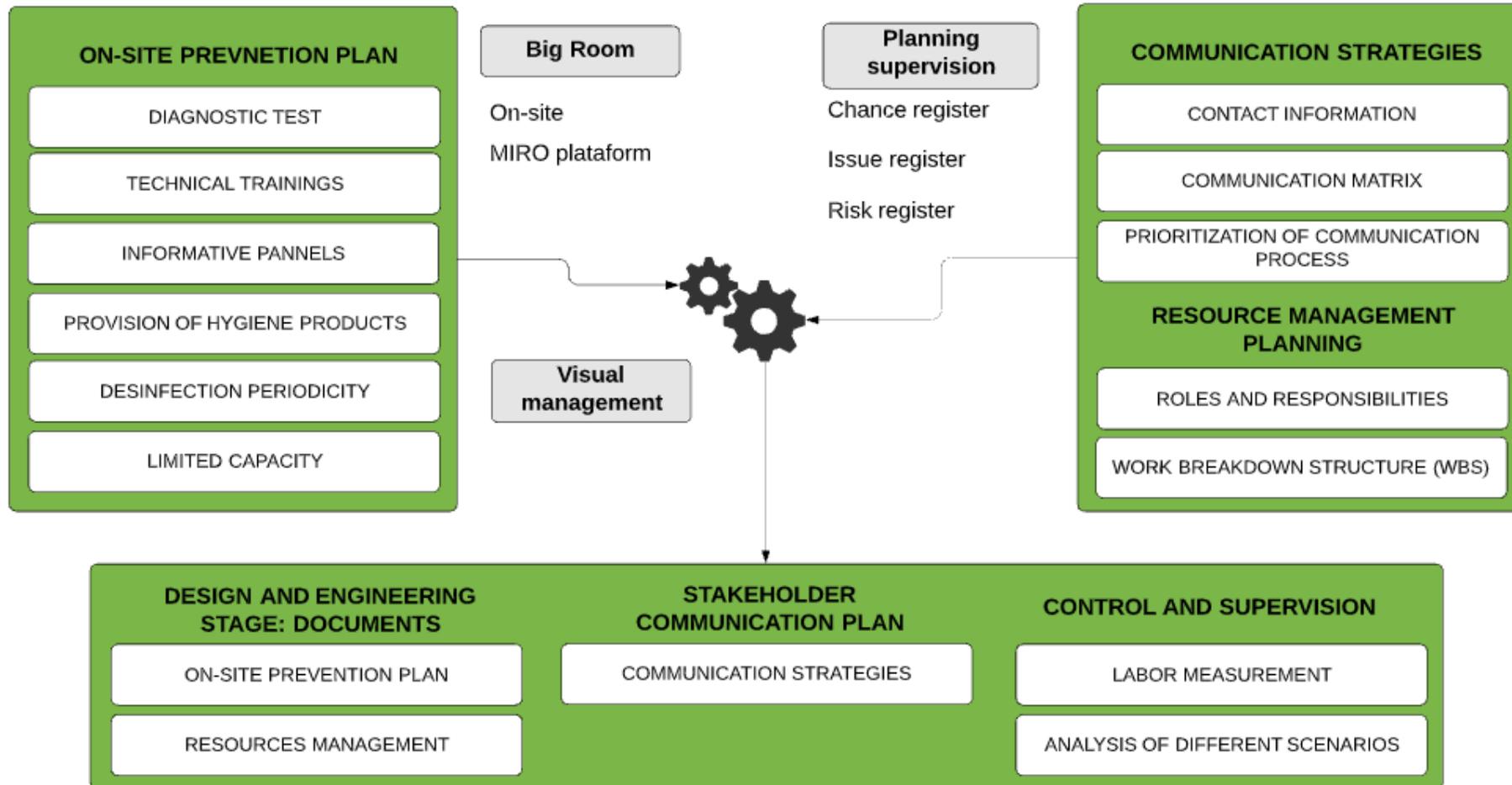


**Figure 5.** Structure of the stakeholder identification phase

Big Room is a large and orderly space that fosters a good collaborative environment. This is where the training and the elaboration of a profile of each interested party will take place, reflecting their knowledge, communication methods and their interest in the project.

# III. DECISION MAKING

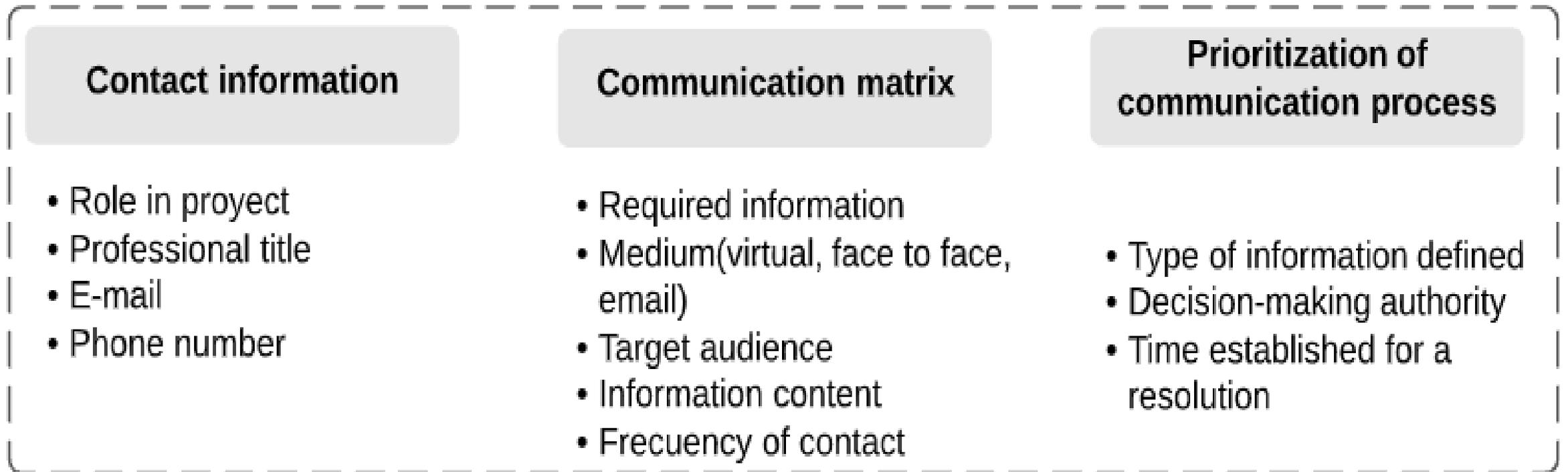
## Phase 2: Stakeholder management planning



**Figure 6.** Structure of stakeholder management planning

The organizational structure is elaborated, where it is seen who responds to whom and under what measures to avoid unnecessary meetings that raise the risk of contagion at work.

**Communication strategies** contains contact information, a communication matrix and a degree of prioritization that helps the manager to maintain a fluid conversation with the engineer, designer, architect, main contractors and derivatives during the design and engineering stages.



**Figure 7.** Content of the register of communication strategies among stakeholders

# III. DECISION MAKING

For the development of the activities of this phase, the progress of the project planning must continue with the practice of the Big room.

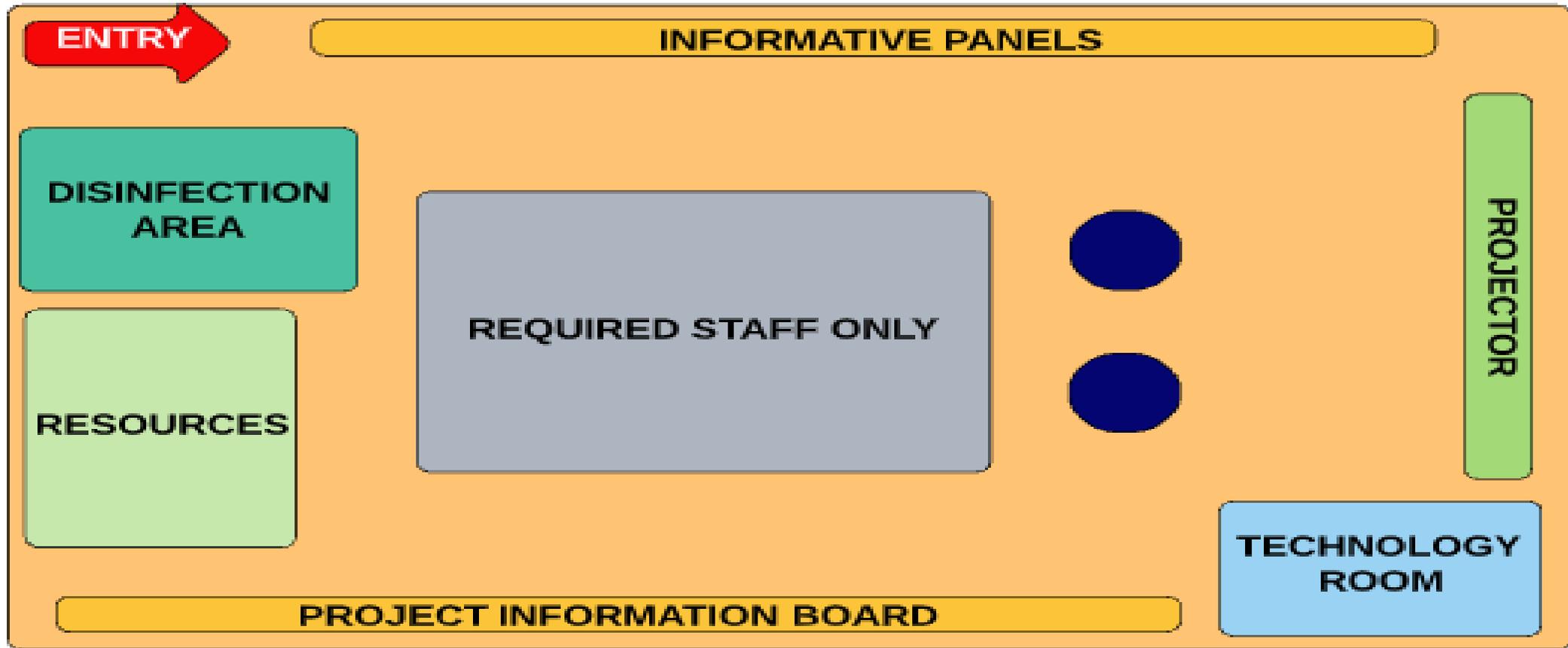


Figure 8. On-site Big Room layout

# III. DECISION MAKING

**MIRO** facilitates the meeting between the design and engineering team to discuss planning decisions for on-site execution. In addition, the service is free, easy to access, and above all encourages the application of visual management, which is a Lean tool that helps clarify processes or other information to be visually appealing and simple to understand.

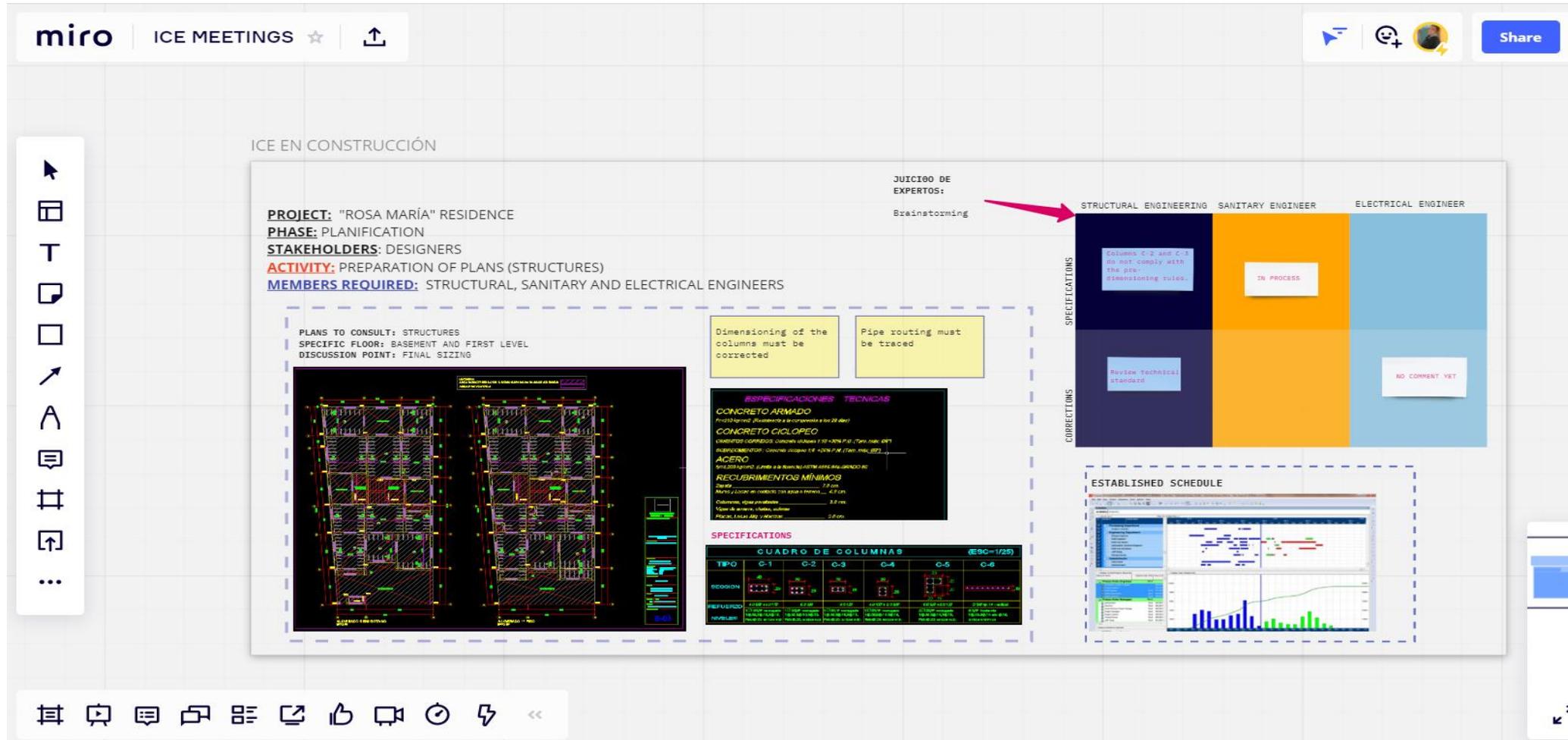


Figure 9. Virtual Big Room using MIRO

# III. DECISION MAKING

## Phase 3: Execution of stakeholder management

IPD contains a series of very important principles for the correct execution of a construction project. The engineers interviewed emphasize that the poor collaborative environment that exists in construction companies is synonymous with poor management in Peru. Therefore, these principles help to form leaders regardless of the position one holds.

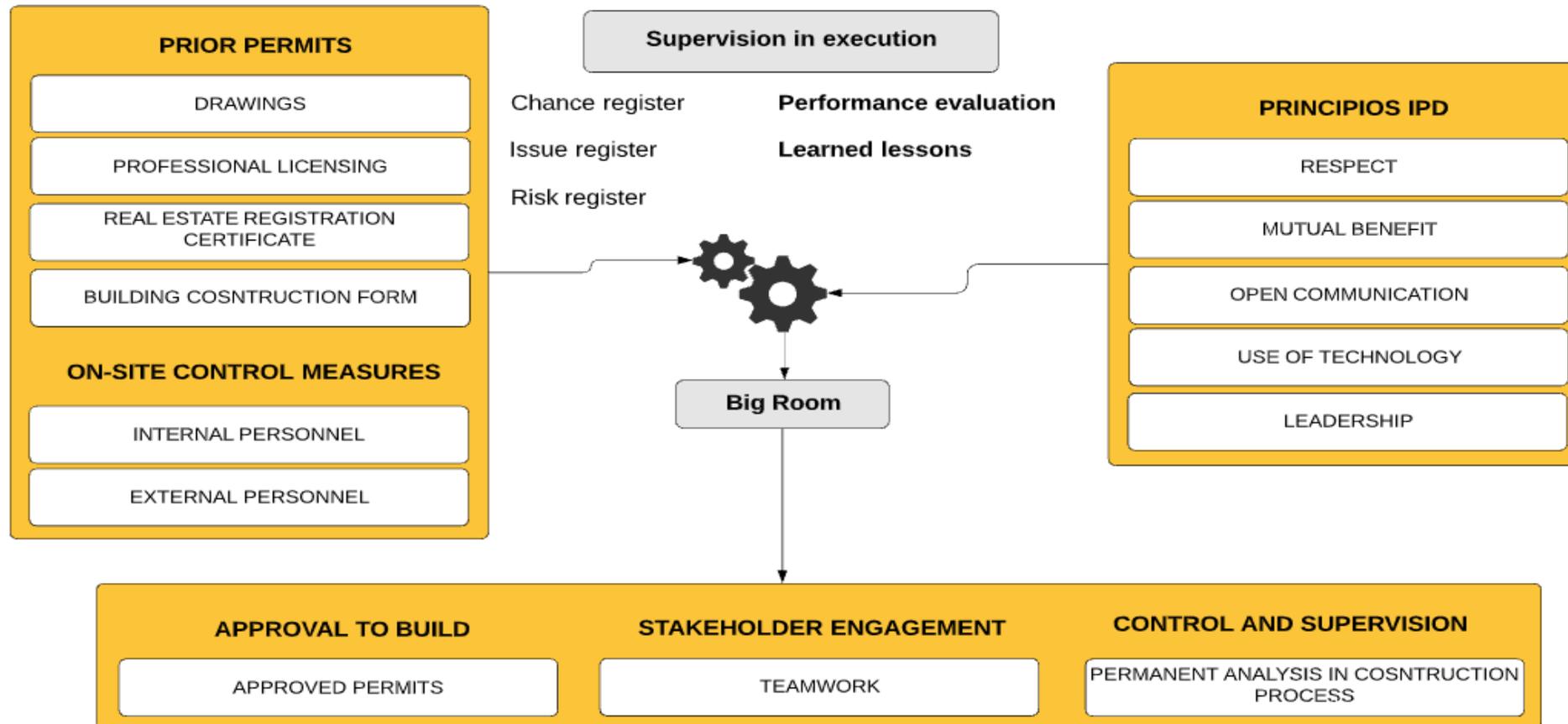
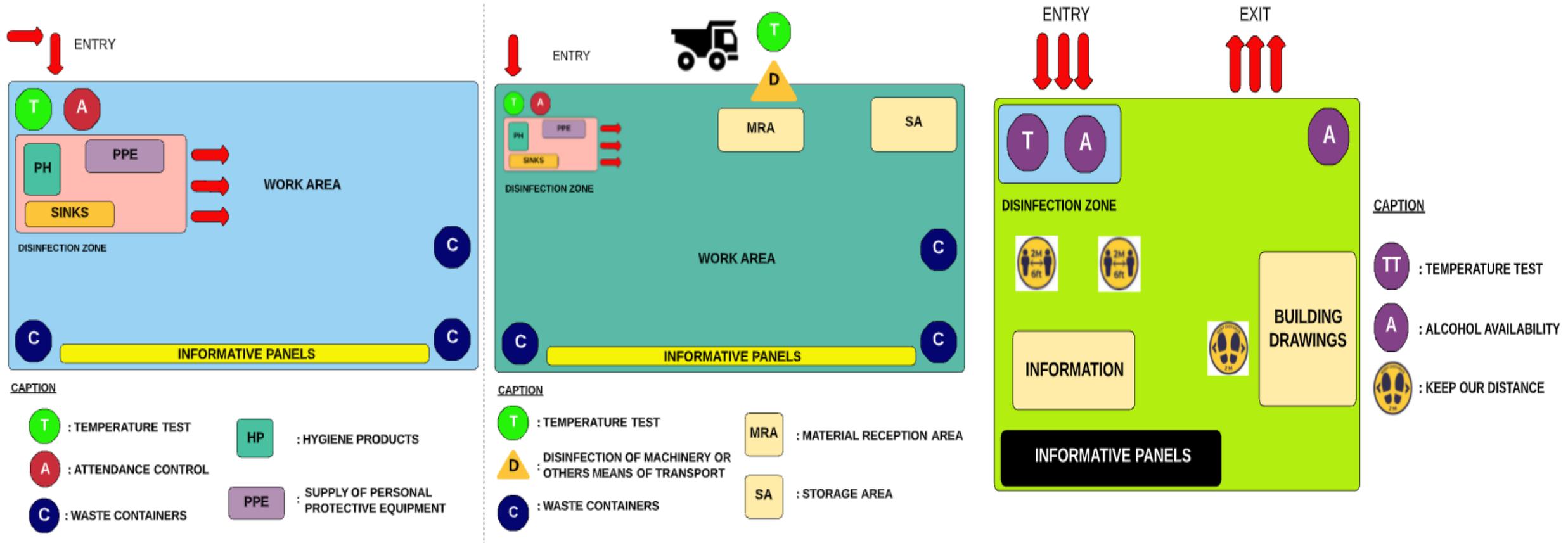


Figure 10. Structure of Execution of stakeholder management

# III. DECISION MAKING

Monitoring and follow-up adds two records: **Performance Evaluation and Lessons Learned**. These reports help to evaluate the performance of the stakeholders and recognize which were the errors in the assigned activity with the objective to improve immediately and take into consideration these records for future planning of other multifamily projects.



**Figure 11.** Work area on-site, Material reception area and Sales area layouts applying preventive sanitary measures

# III. DECISION MAKING

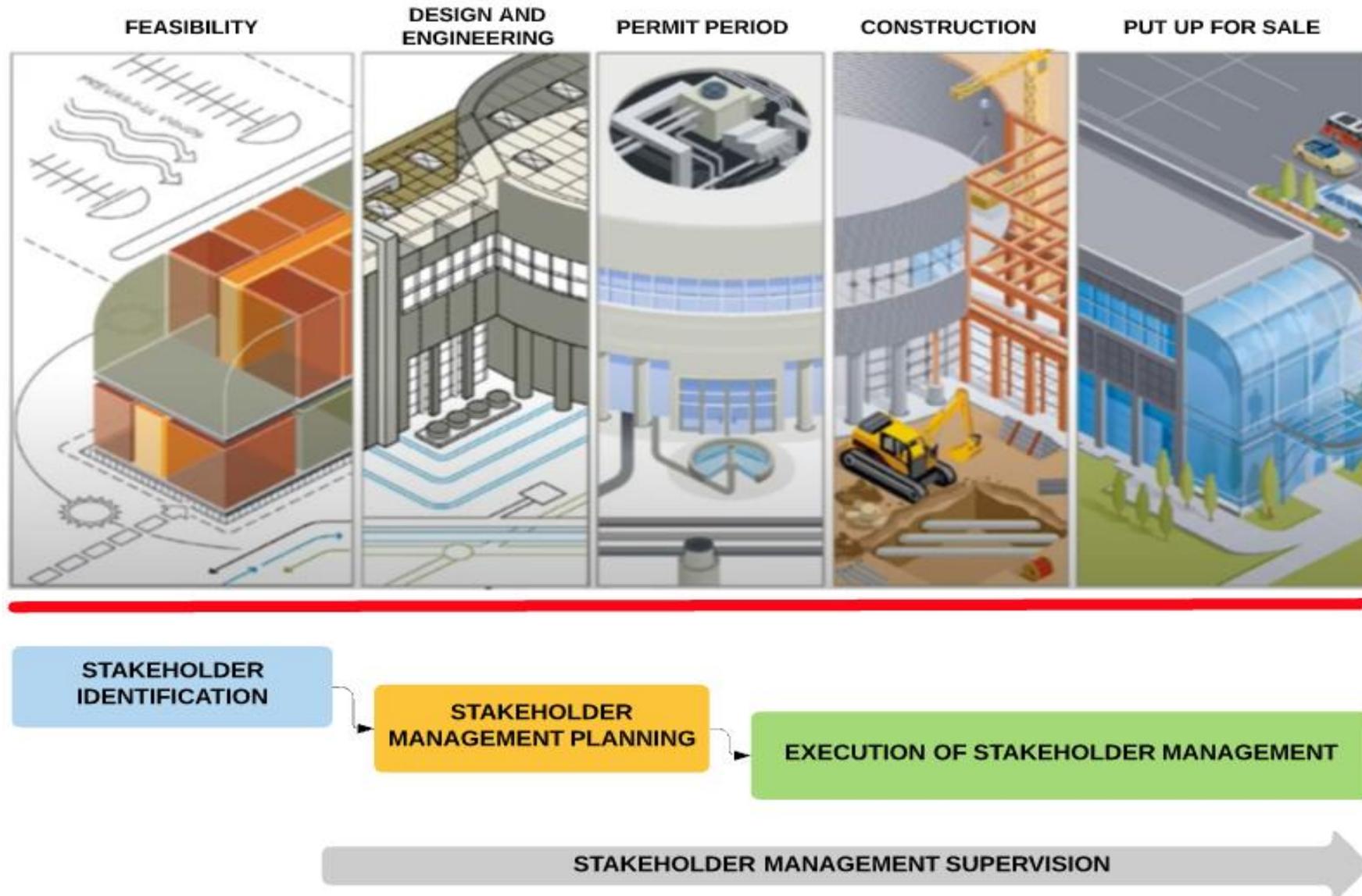


Figure 12. Life cycle of a multifamily project with stakeholder engagement strategy

## IV. CONCLUSIONS

**1.** The experts' opinion highlights the management problems in multifamily projects in Peru, mentioning that **68.18%** of the causes of inefficient management are due to the lack of application of a project management methodology (40.91%) and a poor collaborative environment (27.27%).



**2.** Inefficient planning development and poor execution of a multifamily project in Peru is mainly due to project scope and objectives not being clearly and concisely defined (**40.91%**) and equipment and work materials not being delivered on schedule (**46.15%**) respectively.



**3.** In the three phases of the proposal, the practice of **face-to-face** and **virtual Big Room** (MIRO platform), type of **ICE** meeting, is established, since it promotes order and speed to make decisions in any situation that may occur during the development stages of a multifamily project.

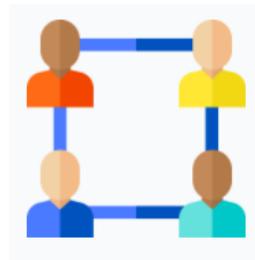


## IV. CONCLUSIONS

4. The **constant monitoring** of the activities established in the proposal with the established records allows them to analyze the different scenarios during a multifamily project. That is, it helps to identify any type of incident or underperformance of the **stakeholder** to take corrective action quickly and effectively.



5. The stakeholder **communication plan**, shown in phase 2 of the proposal, represents the use of **communication strategies** in a registry that allow for greater fluidity and **integration** among each stakeholder.



6. The **feasibility of stakeholder management** in multifamily projects in Peru applying the mentioned methodologies and the use of the **Big Room** as the main tool is **92.31%**, since the best of each one is obtained (69.23%) and new concepts and practices are established (23.08%) to formulate a new approach in these times of change as stated in our proposal.



# THANK YOU!

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