Sustainable MED Cities

Integrated tools and methodologies for sustainable Mediterranean cities

D4.2.1 – Participatory Guarantee System in the context of built environment assessment

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Table of Contents

Executive Summary

Starting from the experience gained in CESBA MED project concerning the development of a participatory approach through the implementation of Co-Creation labs, Sustainable MED Cities will capitalise, reply and adapt this approach to the partner cities involved in the testing activity of the project.

The key ending result of this deliverable is a guideline for PPs involved in the testing activity, for setting up and properly manage the key participative moments during the Decision-Making process (see D4.1.1).

This deliverable has been produced in conjunction with "D4.1.1 - Adaptation of CESBA MED generic Decision-Making methodology to South and East side of MED" and with "D5.2.1 - Test Protocol". For that reason, D4.2.1 must be utilized together with the other companion deliverables mentioned before.

Furthermore, a specific chapter is devoted to the description of the Co-Creation Labs, the places where the participation process physically takes place.

ACRONYMS	
SBTool	Sustainable Building Tool
SNTool	Sustainable Neighborhood Tool
SCTool	Sustainable City Tool
PGS	Participatory Guarantee System
MED	Mediterranean
SMC Team	Sustainable MED Cities team
SMC WG	Sustainable MED Cities Working Group
DX.X.X	Deliverable X.X.X
IFOAM	International Federation of Organic Agriculture Movements
PPs	Project Partners
TPC	Third party certifications
S.MED.Cities	Sustainable MED Cities project
GF	Generic Framework

1. Introduction

1.1. Purpose of the document

The common thread of the whole procedure is the importance to involve key stakeholders in the crucial moments of the Decision-Making process through participatory approaches referred throughout the document as Participatory Guarantee Systems (PGS).

The PGS is a volunteer approach, capable of consider different views, with impartiality and transparency. Based on that, citizen involvement is a key element within the PGS approach since it creates trust and confidence in the retrofitting processes that will be undertaken by a municipality. PGS are strategies to better involve different stakeholders and create the right conditions for a productive dialogue. The implementation of PGS principles could prove an effective strategy for involving stakeholders and citizens to the definition of a refurbishment project. It is, indeed, considered as a form of concertation approach, ensuring cross cutting competencies rallying around the project. The PGS approach would ensure a better social acceptance of projects, a better implementation and a better image for local authorities.

Intrinsic PGS goals are knowledge sharing, priorities contextualisation, collective support among stakeholders in an evolutive system aiming at spreading good practices and innovation among a community.

This alternative system has recently generated a great interest by many countries and cities all over the world.

In the following chapters of this document, the origin and the principles underlying the PGS approach are described. The major focus is on the five participatory moments linked with the Decision-Making process. They are explained in order to be used by project partners as a guideline during the participatory stages of their testing activity.

2. Participatory Guarantee System (PGS)

2.1. PGS: origin and definition

Participatory Guarantee Systems (PGS) are locally focused quality assurance systems, which provide demonstrable evidence that specified requirements relating to a product and/or a production process are fulfilled and controlled in a consistent way.

PGS certify producers based on active participation of stakeholders (including peer review) and are built on a foundation of trust, social networks and knowledge exchange.

The first official definition of PGS was given by the International Federation of Organic Agriculture Movements (IFOAM – Organics International) in 2008:

"*Participatory Guarantee Systems (PGS) are locally focused quality assurance systems.*

They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks and knowledge exchange[1]."

Picture 1: PGS logo provided by IFOAM in the frame of its recognition program 1.

IFOAM holds a PGS recognition program in organic farming to support local producers and evaluates whether a PGS operates in accordance with the key PGS elements.

The origin of this approach dates in the early seventies, when PGS emerged at a moment whenever third-party certification systems for organic agriculture were not available. In 1972, the French organization *Nature & Progrès* operated the first PGS-initiatives that have been transferred to more than 65 countries till 2017[7] (IFOAM, 2017). The *Nature & Progrès* PGS initiative led to the very first definition of organic farming standards. At the time, the goal was to define the production standards but also to build a supportive system for producers through exchanges and coaching between peers.

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[1] https://www.ifoam.bio/sites/default/files/page/files/pgsstudybyssnc_2008.pdf

Third party certifications (TPC) appeared later, as a consequence of a globally growing demand for ecological farming that came along with changing regulatory frameworks, newly defined standards and new labelling systems. In Europe, it took the lead in the nineties after the vote of the directive defining organic farming standards and linking the recognition to a third-party certification process.

Both systems, PGS and TPC, now coexist. There are various reasons for PGS remaining and even developing. Most TPC systems are operated at cost-intensive frameworks with high applicative barriers for farmers in smaller and/or less developed regions. Apart from high costs, TPC systems have the risk of drifting towards homogenized and standardized evaluation criteria that do not take into account local circumstances and specific particularities. Consequently, it might not account for valuable practices, and lack the supportive framework for smaller local farmers/producers. Therefore, new approaches of guarantee systems were tested in which relevant stakeholders of the value-supply-chain in agricultural products would participate in the quality control process of these products[2].

Although the level of recognition of PGS varies significantly from country to country all over the world, **PGS are still evolving on a global scale**, especially those last few years. This evolving process also affects the fields of application of the PGS, concerning that**, a recent use case of the PGS is based on sustainable building and built environment assessment**. This allows to directly link the ambitious aim of S.MED.Cities project with this innovative participatory approach to the sustainable built environment issue.

The impact of the PGS approach on the key outputs of S.MED.Cities and the added value is described in the following chapter.
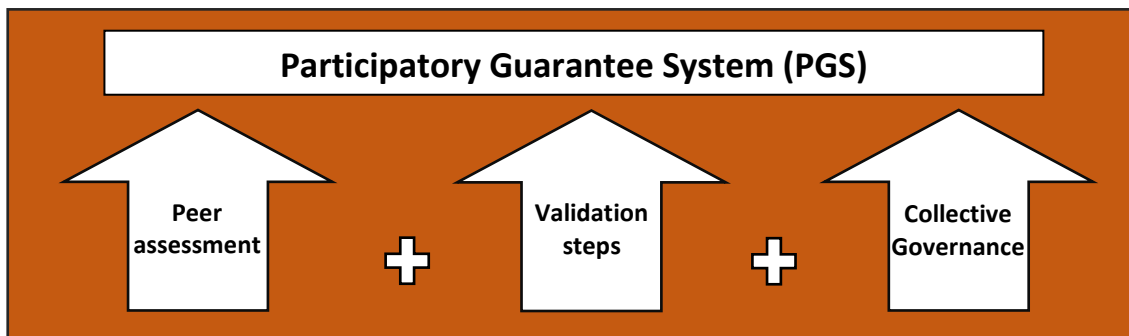
2.2.   PGS: approach and principles

Participatory Guarantee Systems are locally focused. They provide quality assurance systems for particularly defined fields. PGSs certify the quality of the end results based

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■   [2] Cazas, Hamon, Berchtold, Lohe, Vienot, Küchler, "Participatory Guarantee Systems in Europe in the context of sustainable built environment assessment approaches", January 2019.

on the active participation of stakeholders, since they are built on a foundation of trust, social networks and knowledge exchange.

PGS are based on the direct participation of key stakeholders in:

- <u>the choice and definition of the standards</u> (e.g. in line with, or even more ambitious than existing regulatory standards)
- <u>the development and implementation of certification procedures</u> (e.g. by defining and monitoring compulsory process steps)
- <u>the certification decisions through peer review</u> (e.g. by a PGS committee that includes various stakeholders of the PGS)
- <u>the Decision-Making process</u> (considering the way, the approach functions and how decisions are made).

Participatory Guarantee System (PGS)

Peer assessment **+** Validation steps **+** Collective Governance

Picture 2: sketch of the key actions relying on the PGS.

Stakeholders are actively involved and gain a sense of ownership, responsibility and loyalty to the initiative. PGS certification (or participatory certification) can be seen as complementary to TPC. Whereas prevalent third-party certification are top-down systems, **PGS are bottom-up allowing for more flexibility, reactivity, actual support of professionals, and the recognition of local circumstances and needs**.

The principle behind the involvement of the stakeholders in those kinds of participative processes, is to **discuss opinions and needs while finding a collective solution that suit them best** concerning the key aspects addressed.

As a result, PGS **bring people together to work on a common goal, which also leads to a better understanding of sustainable building culture and a better understanding among each other**. Through this involvement of all stakeholders in the process, the

ability of the members of a community to cooperate with each other, to take over responsibilities and to organize their actions is developed.

This also leads to a better implementation of strategies for a more sustainable building process. **The more people from different backgrounds and levels are working together, the better the fulfilment of sustainability goals will be**. Through the involvement of all stakeholders in the structure process, additional knowledge can be gained. Indeed, members of the certification process bring in their knowledge and in return are able to learn from their fellow members. With the **combination of the know-how of the members with different backgrounds** and their experiences gained during the certification process, new knowledge and sound standards are created. This is particularly crucial for the built environment where projects are the outcome of cooperation of numerous stakeholders from the complex value-chain of building.

Generally, **7 guiding principles can be identified for the PGS on sustainable built environment[3]**:

1. **Participation**: Participation and active commitment of relevant stakeholders is a fundamental dynamic in the design and operation of a PGS. In the context of buildings and built environment, **multiple interest groups** such as building users, owners, investors, citizens, technicians, architects, engineers, building companies, urban planners, local authorities (politician, administration) are at stake. These **stakeholders are part of an ongoing learning process in which knowledge about planning, design, construction, needs, etc. is shared**. Such processes of mutual learning are increasing the level of knowledge among the group. Usually, this process is **facilitated by a PGS committee** or designated representatives. Participation comes along with a collective responsibility and is reflected through:

   - Shared ownership of the PGS
   - Stakeholders' involvement in the development process
   - Peer assessment review

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[3] Cazas, Hamon, Berchtold, Lohe, Vienot, Küchler, "Participatory Guarantee Systems in Europe in the context of sustainable built environment assessment approaches", January 2019.

- Understanding on how the system works
- Direct communication between stakeholders such as owners, technicians, local authorities.

This collective responsibility helps to shape an integrity-based approach and a formula of trust and should be promoted through a transparent operational process. This transparency should include transparent Decision-Making processes and easy access to key information.

2. **Horizontality/dialogue**: horizontality means that all members have a right to participate in the governance of the assessment system. It intends to be non-hierarchical and to prevent any stakeholder from having too great a power. An open and horizontal dialogue between stakeholders is crucial to set the shared vision that will constitute the basis of the PGS standards. It leads to collaborative decisions, collective responsibility and shared ownership.

This principle is reflected in the general governance of the PGS that can define representative bodies and responsibilities as well as Decision-Making processes. With respect to the transparency principle, this governance, its functioning including access to Decision-Making should be clear, documented and available. It means that conditions of access to membership, to the different bodies and responsibilities are clearly defined. Responsibilities have to be shared and therefore stakeholders should assume the various roles and missions, each in turn.

3. **Shared vision**: Stakeholders (users, owners, investors, citizens, politicians, technicians, architects, urban planners, builders, local authorities) collectively support the PGS principles as core values and a definition of sustainable built environment. Such principles form the baseline to link legislative building standards with the standards and requirements of the people that design, build, live in or use these buildings or neighborhoods. The shared vision of the PGS can incorporate goals relating to official standards, social justice, environmental protection, energy efficiency, use of renewable energies, resilience to climate change, cultural differences etc.

How these stakeholders collectively share their vision will vary depending on local circumstances and the way in which stakeholder groups are engaged.

4. **Transparency**: All stakeholders have open access to the information on the participatory guarantee system. This includes access to commonly defined standards reflected in the assessment frameworks, criteria and indicators and information on Decision-Making processes.

Transparency can be insured through:

- Clearly defined and documented systems and processes
- Public access to documentation and relevant information about the PGS
- Information sharing at meetings and workshops
- Participation in internal inspections (peer reviews)
- Collective decision on all matters also contributes to transparency.

5. **Trust integrity-based approach**: trustworthiness of the guarantee system is rooted in the idea that key stakeholders collectively develop their shared vision which is collectively enhanced and reinforced through the PGS. How this trust is generated might rely on regional or cultural specifics of the PGS group.

The process of creating trustworthiness should be defined and agreed upon by and with the key stakeholders of the PGS and can be changed or adapted like any other formal record or arrangement in case all parties agree. Since the PGS and the certification process is handled transparently, parties put at stake their reputation in public which enforces trust and integrity.

6. **Continuous learning process**: One of the characteristics of PGS is that the learning process is going on continuously for every stakeholder, at different stages and through different means. To allow a steady learning process, a knowledge net between all stakeholders of the PGS has to be set up. It is up to each single PGS to define communication means among its participants. In general, those networks are not institutionalized but are set up through local self-organization of the PGS members. It is also found that for most stakeholders it is more important to learn from their peers through informal conversations rather than through formal scientific recommendations.

7. **Assurance**: It has to be assured that the commonly set goals of the PGS are met. To achieve this, the active involvement of all key stakeholders is necessary and the quality of relationships among stakeholders is important. Persons who know each other and who get along with each other are more motivated to work constructively on the project. All stakeholders together encourage social control so that the set rules and regulations of the PGS are respected.

Techniques to maintain the set quality standards can be established through guidelines. The participatory process, combined with horizontality, is also an assurance of collective ownership that prevents one interest group from taking over the definition of standards and the process of validation.

## 2.3. Sustainable MED Cities and the PGS principles

As mentioned in the previous section, PGS are still evolving on a global scale especially on the different fields of application. The **sustainable building domain together with the built environment assessment**, belong to that new sphere of PGS action. S.MED.Cities project capitalises this participative approach thanks to the application of its principles through the Decision-Making process (see D.4.1.1).

All 7 guiding principles established by the PGS are respected and utilized by the S.MED.Cities project; the direct application of this participative approach is fully described in the following chapter, highlighting the added value represented by the participatory moments within the Decision-Making process.

3. PGS and the Sustainable MED Cities Decision-Making

3.1. Direct application of the PGS through the Decision-Making

The D4.1.1 describes the S.MED.Cities Decision-Making methodology to prepare the optimal retrofitting concept for an urban area and single buildings that belong to it. D4.1.1 emphasizes that **the process adopts a participatory approach to maximise the involvement of stakeholders in the preparation of the retrofit concept**: the participatory approach follows exactly the PGS methodology. The Decision-Making methodology is articulated in a series of consecutive steps, starting from the diagnosis of the current state of an urban area or building, guiding a Team in the preparation of the optimal retrofitting concept, with regard to cost efficiency and the overall sustainability performance.
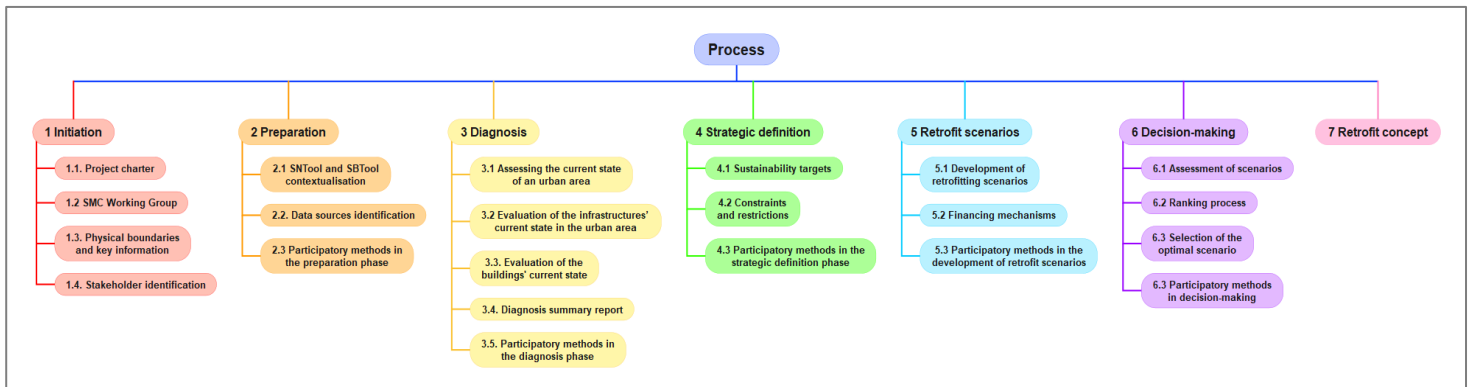

Picture 3: Phases of the Decision-Making methodology, from D4.1.1.

As shown in Picture 3, almost all phases constituting the Decision-Making process foresee a participatory stage, closely related to the objective of the phase addressed. Only the first (initiation) and the final (retrofit concept) do not require a participative moment. These participatory moments are fundamental to guarantee the transparency of the process, the active stakeholders' participation and the dialogue, in the way to achieve a shared vison among multiple key actors involved.

In the next chapter the five phases addressing the PGS approach are elaborated in detail.

4. Participatory Moments in the Decision-Making process

4.1. Participatory Moment 1: Preparation
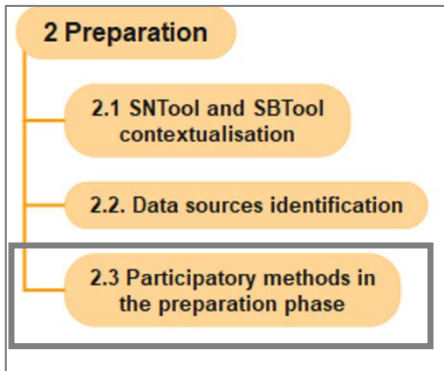
The preparation phase of the Decision-Making is the beginning of the urban and building retrofitting concepts development. It will provide the necessary information to create a sufficient working basis for the next phases. The first step of the preparation phase consists in the contextualization of the SBTool and SNTool generic frameworks (transnational version) to the local priorities.

The PGS approach takes place at this crucial moment, indeed it is recommended to carry out the selection of criteria and the weight assignment through a participatory approach, involving the key stakeholders previously identified.

Key stakeholders to be involved in this participatory preparation moment are:

- Municipality's departments and other local authorities (e.g., Building Control, Health & Safety, Green Areas, Mobility Management, Urban Planning)
- Experts (e.g., urban planners, energy managers, landscape designers, etc.)
- Utilities and Service providers (e.g., energy, water, solid waste, etc.)
- Public Interest Groups (e.g., neighbours, residents' associations, business associations, sports and other local clubs and societies, neighbourhood watch, NGO's, politicians)
- External Parties (e.g., banks, funding agencies).

The SMC Team (the group of experts appointed by the municipality that will carry out the retrofitting study through the application of this Decision-Making methodology) and the coordinator of the SMC WG are of course involved in this key phase of the Decision-Making process.

At the preparatory stage, stakeholders take centre-stage since it is at this phase that the sustainability assessment tools (SNTool and SBTool) are contextualised.

The selection of the assessment criteria is a very important step in the process because it will determine which sustainability issues will be considered in the preparation of

the retrofitting scenarios. More, the assignment of weights to criteria consists in a prioritization of the different sustainability subjects and should reflect the needs and expectations stakeholders. **The contextualisation of SBTool and SNTool needs to be done in conjunction with stakeholders. A PGS workshop must be organised to validate the selection of the assessment criteria and the weighting process**.

4.2. Participatory Moment 2: Diagnosis
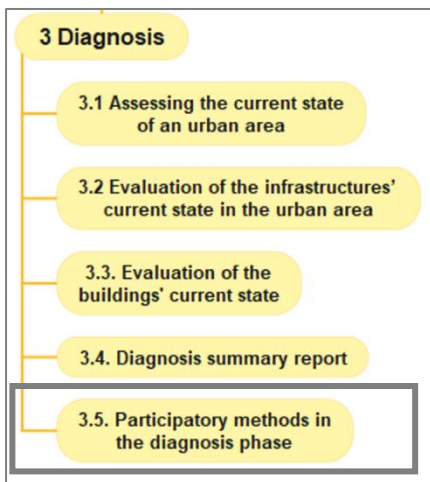
The diagnosis phase consists in the evaluation of the current condition and relative level of sustainability of the urban area and buildings using the contextualised versions of SNTool and SBTool. The aim of the diagnosis phase is to analyse the current state of the buildings and the urban area, trying to identify their strengths and weaknesses.

During this phase, **it is recommended to carry out a survey among the inhabitants of the urban area or building**.

The survey can be useful to identify the priorities of inhabitants and issues non quantifiable through the corresponding tool indicators for the building (SBTool), Neighborhood (SNTool). For instance, these can be occupant desires concerning the design or amenities of the neighbourhood infrastructure (e.g. need for a new shopping opportunity or playground in the neighbourhood, need more parking space or brighter street lighting, etc.). To analyse the valuable feedback of the different occupants on these non-assessed key-weaknesses using the corresponding tool, **it is recommended to carry out a workshop by the municipality as part of the PGS approach**.

From the perspective of occupant and user participation, the diagnosis phase involves little engagement. The SMC WG will analyse the current state of the buildings and urban area against the benchmarks set during the preparation phase, taking account of information previously gathered from occupants and users. The result is a summary of the weaknesses identified at building and neighbourhood level, from both a technical and quality of life perspective. The most important interaction with occupants and

citizens during this phase will therefore involve communicating to them the results of the diagnosis.

This might be done during a PGS workshop organised in person or using electronic means, offering an opportunity for people to provide feedback with comments, questions, criticisms or other recommendations.

4.3. Participatory Moment 3: Strategic definition
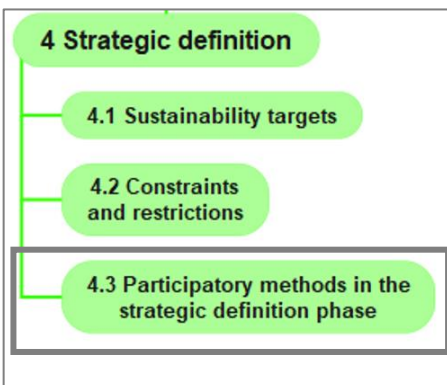
The main goal of this phase is the definition of the main framework conditions for the later retrofitting design based on the results of the diagnosis phase. The strategic definition therefore serves as pointer for further design phases by setting meaningful targets for the retrofitting project and by identifying the main constraints and restrictions which may limit the retrofitting design.

Indeed, this phase allows both to build a shared vision to support Decision-Making and to drive improvement in performance by setting a baseline from which to assess change. At the strategic definition stage, **stakeholders again take centre-stage** since it is here that the framework conditions for the retrofit design and plans are defined based on the results of the diagnosis phase. A series of Specific-Measurable-Attainable-Relevant-Time based (S.M.A.R.T.) targets are set (see D4.1.1), and constraints and restrictions on the project identified. This needs to be done in conjunction with stakeholders. **A PGS workshop must be organised to validate the sustainability targets for the urban area and for the public buildings**.

4.4. Participatory Moment 4: Retrofit scenarios
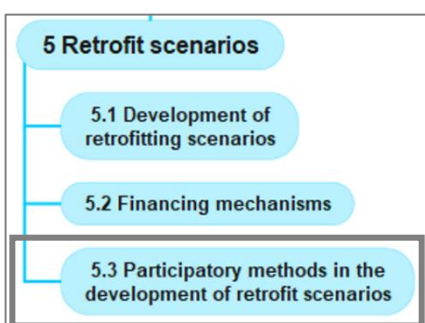
In this phase, the SMC WG develops possible alternative for retrofitting scenarios to be applied to the urban area and the buildings that fulfil the defined sustainability targets in the Strategic Definition phase.

As it's often the case, the team might come up with number of different scenarios, all of which fulfil the sustainability targets.

Therefore, all valid scenarios would then be assessed in the next phase to choose the optimal one. Once a vision for the future of the urban area has been established and have identified the sustainability targets that will drive efforts to achieve this vision, it is possible to begin the development of a plan to make this vision a reality.

Inputs and suggestions from inhabitants, occupants and stakeholders are a valuable contribution in the development of retrofitting interventions. Stakeholders can provide feedback considering their targets and expectations on the prioritization of interventions.

A PGS workshop shall be organised to exchange on the possible retrofitting strategies and scenarios.

4.5. Participatory Moment 5: Decision Making
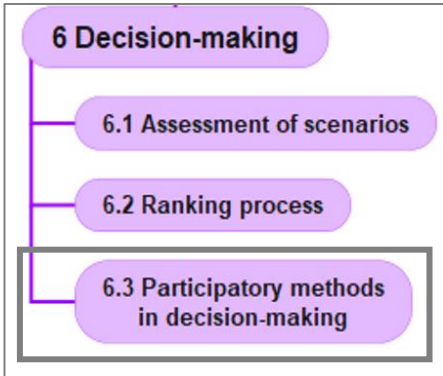
The overall goal of this phase is to select the best scenario in terms of energy and cost efficiency as well as the overall sustainability among the ones created in the previous phase. This phase is articulated in two main steps represented by the assessment of the scenarios and their ranking process. Only the scenarios which have reached the sustainability targets can be compared in the Decision-Making phase.

The selected best scenario will then developed in a retrofitting concept in the next phase. Occupant and user participation becomes critical once more at the Decision-Making stage, where a selection is made from among the scenarios previously generated. In all cases, **feedback from occupants and users should be invited at this point, before a final decision is made on the best scenario**.

A key question is the level of influence over this decision they are to be afforded *vis-à-vis* other stakeholders.

The opinions of occupants and users should be heavily weighted. After the SMC Team has ranked the variant design concepts, and assessed them for value, the results should

be encapsulated in a summary report. This is then presented in a PGS meeting, starting

the participatory approach at this crucial stage of the Decision-Making process

5. Co-Creation Labs

5.1. PGS and Co-Creation Labs

The main theme of the whole document is represented by the importance to involve the stakeholders in key moments of the Decision-Making process through a participatory approach, actually represented by the PGS.

An important aspect to be considered, that goes hand in hand with the implementation of the PGS process, concerns the **physical meeting venue** for these fundamental participative moments.

Starting from what the pandemic situation of Covid-19 has taught us, the virtual meeting modality sometimes limits many of the valuable interactions which is possible to experience mainly during the meetings in person. For that reason, it is recommended to perform these participatory discussions in person, facing stakeholders directly, when possible and always complying with safety regulations.

Based on that necessity, the **Co-Creation Labs are the places where the participation process physically takes place**, in synergy with the virtual participation of the collaborative platform. A co-creation Lab will be set up in each participating city to support a participatory approach in the development of urban retrofit plans.

The Lab will explore innovative ideas and scenarios involving user communities as source of creation. Indeed, these Co-Creation Labs are fundamental to collect expectations, views and feedbacks on the different stages of the Decision-Making process, by all the concerned stakeholders.

6. Conclusions

The participation process is becoming increasingly important, especially when it comes to reduce resistance and objection from stakeholders, like citizens, whose opinions are not always taken into consideration by the municipality during, for example, the refurbishment of an urban area.

To guarantee credibility of conformity assessment and reliability of the participative process, it is important to ensure transparency and impartiality (following the third-party principle) to all processes. This means that personal commercial and financial interest or other pressures must be avoided not to compromise the impartiality of the process.

Following the principles mentioned in this deliverable, the Sustainable MED Cities PGS will ensure credibility and reliability of the testing activity results. Stakeholders will take central stage in all the key moment of the Decision-Making process, ensuring cross cutting competencies rallying around the project.

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