



INCUBE
sustainable building innovations

WP6 – D6.1

Blueprints for Social Inclusion (v1)

Main authors:

LAMA



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1. InCUBE partners' approaches to social inclusion

1.1 Approach to End users Engagement

Zaragoza Vivienda's Approach to end user engagement

Zaragoza Vivienda (ZAVI) addresses two main groups of end users generally within their renovation projects:

- **Social Tenants:** These users benefit from a structured follow-up process facilitated by ZAVI's social workers, an integral part of ZAVI's protocol for residing in social housing. This approach ensures continuous support and addresses the specific needs of social tenants.
- **Private Owners:** Engagement with this group is conducted through ZAVI's local office. The focus is on raising awareness and understanding of the benefits of renovation. The office provides detailed information and support to encourage private owners to participate in renovation initiatives.

In European Projects, one of ZAVI's roles is to act as the **intermediary between the technical team and the end users**. ZAVI's most effective method for involving end users primarily involves periodic physical meetings with entire communities of owners and tenants or with their representatives. The latter are called the "**follow-up commission**" by ZAVI and are deemed the most effective in engaging end users in decision-making. The follow-up commission consists of the key active participants: the technical team, owners/tenants, and the property manager. This commission serves as a critical tool for fostering collaborative work.

ZAVI's work also focuses on long-term urban and refurbishment strategies through the design of subsidies. It typically involves engaging with end users via existing neighbourhood associations to include their perspectives. To this end, ZAVI participates in local networks that bring together all stakeholders involved in city processes, including the municipality, **neighbourhood associations**, and sector companies, to promote participation and facilitate communication among them. Moreover:

- ZAVI maintains various **bidirectional channels** open to citizens, providing a space to receive assistance.
- **A dedicated team for public engagement** offers information on all aspects the organisation promotes, including social subsidies, renovation, and renting.
- Specific email addresses and phone lines are designated for inquiries related to renovation processes.
- **Neighbourhood offices** are located in four specific neighbourhoods, including Balsas de Ebro Viejo, where the InCUBE project is situated. These offices aim to raise awareness about the advantages of refurbishment. They serve as information points where the benefits of integrated renovations and available subsidies to encourage new renovations are explained. These offices also provide support and guidance to end users, typically communities of owners, during the renovation process. They perform tracking tasks, offer mediation advice throughout the process,

and help resolve any uncertainties.

Van Wijnen's Approach to end user engagement

Van Wijnen (VW) possesses a roadmap that outlines the journey for residents on a renovation and transformation trajectory. This roadmap can be made project-specific and is divided into 5 phases:

Phase 1: Research phase - Exploration

Phase 2: Research phase - Development

Phase 3: Preparation phase - Communication

Phase 4: Execution phase - Realisation

Phase 5: Aftercare phase - Aftercare

Especially during renovation projects, where residents are owners of the apartment/ building, or in the event of social housing, residents of the renovated building complex are actively engaged in the project. VW schedules several **contact moments with residents** during the preparation phase of the renovation but also during the construction itself, where residents are informed about the specifics of the renovation to be undertaken or where their active input is required. Open and personal communication is hereby of utmost importance. For this reason, Van Wijnen has a **resident counsellor** assigned per project, who is the fixed contact person for residents from the preparation phase of the project onwards.

Participation and support:

- For some projects where residents are owners of the apartment/ building or in the event of social housing, about 70% of the residents have to give their **approval** if they agree with the renovation being executed. The residents are actively engaged in **decisions concerning the kitchen, toilet and shower design**.
- In these instances, VW looks for 5 residents who volunteer to become ambassadors. This participatory activity allows residents to actively think about and participate in the project.

The **communication** with residents is undertaken in three ways:

1. **Inform:** Timely and correct information provision is key. Three months after the renovation, VW visits the residents to check whether they are still satisfied with the renovations and how they look back on the renovation works. Evaluation works are conducted jointly with the commissioning client and the residents.
2. **Involve:** During construction work, residents are given a card with a question mark on one side and a thumbs-up on the other. With this sign, residents can signal to VW whether they have a question (question mark) or if everything is in order (thumbs-up). Residents are asked to put up the sign in their window frame daily to ensure timely acknowledgement of any potential issue.
3. **Unburden:** Residents are given notice of when to expect what nuisance before the actual start of the renovation. In this way, residents are aware of the type and duration of the nuisance and can plan accordingly. In addition, so-called "uitrustwoningen," (furnished homes) are apartments where renovations are not taking place and where residents can temporarily move in. These apartments allow residents to escape the nuisance (noise pollution) connected to the renovation

works.

Collection of feedback:

- Residents can contact the **resident counsellor** about any issue or question from the planning phase to the renovation phase. The resident counsellor will then report back to the project team.
- After the renovation is concluded, the building cooperation usually **surveys** how the renovations were perceived. Additionally, Van Wijnen is handing out leaflets to residents how satisfied they were with the renovation.
- Van Wijnen also organises informal contact moments with residents, such as festivities at the start of the project, where residents can come together and pose their questions to Van Wijnen.

In the event of the InCUBE demo site, the above-mentioned rules are not applicable, as the residents are tenants and thus do not fall under the above-mentioned category. Moreover, the end users are not present on site during the renovation work.

1.2 Approach to Stakeholder Engagement

Van Wijnen’s Approach to stakeholder engagement

Van Wijnen (VW) is following seven steps of a roadmap for stakeholder engagement:

1. **Location:** Firstly, VW assesses the location to see what conditions are fixed and which are not. These conditions will also determine the degree of possible participation of stakeholders.
2. **Preconditions:** Participation includes the early involvement of stakeholders in the decision-making process. In the second step, VW identifies the specific needs of stakeholders. It is essential to detect what preconditions stakeholders, such as the municipality, building owners, commissioning clients, or project developers, are posing and how these preconditions are fixed.
3. **Scan of the environment:** Besides the initial detection of stakeholders, it is essential to make a more holistic analysis of which parties are all involved or have a link with the location. Often, housing corporations or the municipality have more insight into this information. It will then analyse all these stakeholders' interests and influences. To receive this information, different methods can be applied. For example, an “information evening” could be organised to collect all this data.
4. **Participation plan:** Based on identified needs and the environmental scan results, a participation plan will be outlined. This plan contains the needs of stakeholders and will determine which of these needs we will further explore or include. Additionally, this plan will determine “how” stakeholders are involved. Will they only be informed, consulted for advice, or have decision-making power? Based on these inputs, VW established a fitting participation trajectory.
5. **Participation trajectory:** The participation trajectory concerns the execution of the participation plan. It is important to communicate clearly to stakeholders how far their participation is reaching (informing, advising or co-deciding) and what the process looks like.
6. **Solutions:** Communicate clearly with stakeholders, the decisions you have made. In some instances, these could be contradictory to stakeholders' wishes, so it is essential to substantiate the reasoning behind every decision.
7. **Building permit application:** From 2024 onwards, when applying for a building permit, it will be

compulsory to show proof that participation with stakeholders was conducted.

1.3 Approach to Affordability

ITeC's approach - Preventive maintenance plans

ITeC is in favour of having robust preventive maintenance plans: they are a powerful tool to save money, since good maintenance contributes to prevent serious issues that could become expensive to repair.

ITeC offers the following services to (private and public) building owners:

Preliminary audits before drawing up a maintenance plan

The first step of any maintenance plan for a building or for an infrastructure is to audit what state of conservation it is in and whether it is being used and maintained in accordance with the current codes. But in certain circumstances, attention must also be paid to other aspects that may impact the success of the plan: which documentation is available, what can be learnt from previous maintenance experiences and how the next contractor will be chosen.

Technical advice on the preparation of bidding documents for maintenance contracts

Each time a company is hired to maintain a building or group of buildings, or a facility, public space or green area, the contractor is expected to keep it in good condition. Since the definition of "good condition" may be open to interpretation, it is advisable to complement the contract with a technical specification to set precise criteria to carry out cleaning, conservation, repair and replacement. ITeC's experience in this field can contribute to drawing up robust specifications that take care of all the details regarding scheduling, manpower, techniques, materials and management.

Audit of the maintenance documentation

In the case of buildings operated through a concession contract where construction and maintenance work must be done throughout the contractual term, ITeC audits the documentation to ensure that the concessionaire receives from the owner a faithful account of the actual state of the building. The review includes verification of the inventory, checking that all preventive maintenance operations have been defined according to current regulations and that replacement maintenance operations have been planned according to the contract.

Drafting maintenance plans in project and construction phases

An easy-to-maintain building is usually a consequence of how it was designed and built. A constructive system may be economical to put in place, but it can become very expensive to maintain. ITeC advises project teams by identifying which systems will perform the best when the building is in use (anticipating the maintenance costs) and how they should be placed so that they can be properly assessed for maintenance purposes. The goal is to deliver a building project that already has taken maintenance into

account before construction begins and is aware of the effort (economic and otherwise) that it will require from the owners once the building is operational.

Monitoring and optimization of maintenance plans

After drawing up a maintenance plan with ITeC's TCQi MNT software, it is necessary to check whether the initial assumptions match the true behaviour of the building or the facility in question. ITeC keeps track of the data that the different players enter in the system and provides early warnings regarding deviations that may lead to reassessing the initial maintenance protocols in order to fine-tune them to the real conditions.

Zaragoza Vivienda's approach to affordability

Zaragoza Vivienda (ZAVI) has two main ways to address affordability:

1. **Through renovation subsidies:** one of the departments is in charge of developing and managing refurbishment subsidies, that will make renovation projects more affordable and promote the renovation within the city. The InCUBE economical model is based on refurbishment grants (combining as many subsidies as possible to make InCUBE solution affordable for neighbours). ZAVI promotes and manages specific grants for vulnerable people.
2. **Spreading refurbishment culture:** ZAVI highlights the refurbishment benefits, emphasising the importance of energy savings, health benefits and future savings obtained by investing in renovation projects.

1.4 Approach to Safety of End Users

Van Wijnen's approach to Safety of end users

Van Wijnen has the following measurements in place to ensure the safety of end-users during construction:

Logistical measures

- No transport during start and end times of elementary school;
- Never replace the front and back facade or windows at the same time because of unwanted airflow;
- All homes that have been started are completed before vacation periods;
- Working hours between 7.30 a.m. and 5pm;
- Make daily schedules and nuisance per day available via pictograms per dwelling;
- LEAN planning and working hours adapted as far as possible to residents' wishes;
- Daily stands (project leader Customer Journey and Quality takes part in this from the perspective of the residents);
- Ensure safe access to the home and stairwell. Left orderly at the end of each work day;

- Place lockable trash containers to prevent construction waste from wandering around;
- Tools with dust extraction and minimal noise and vibration;
- Professional cleaner ensures general areas of the complex are clean for weekends and vacations.

Inside the house

- Prior to working inside we cover the floors;
- Covering materials and moving boxes are provided to residents;
- The resident can stay in at least one room of the house;
- We place specially developed prefabricated dust screens to separate living and working areas.

Employees

- All our employees are proficient in the Dutch language;
- Our employees take their breaks in their own canteen and not in the homes;
- We do not use the sanitary facilities in the residences;
- Our employees dress recognizably and representatively;
- Codes of conduct to which employees conform (during the execution of the test residence and if necessary afterwards).

1.5 Approach to Safety of Construction Workers

Van Wijnen's approach to Safety of construction workers

Van Wijnen implements the following methods to address safety aspects to construction workers during the renovation process:

- **Establishment of a reporting culture:** Van Wijnen established an app where employees can report unsafe situations. Points of improvement are fast implemented via training, conversations or internal communication.
- **Safety walks:** Once every quarter "Safety walks" are undertaken during which unsafe practices are reported. These Safety walks are done by the director, chief of staff or managers. The purpose of these walks is to generate insights into potential safety hazards, initiate an open dialogue and create awareness for the usage of the Safety app. Safety concerns not only VW but also our partners, therefore subcontractors and suppliers have to comply with our safety norms.
- Participation in the country-wide "Bewust Veilig-dag" ("Conscious Safety Day") (29 March 2023): This initiative aims to raise awareness that safety concerns everyone working in construction. Van Wijnen's suppliers and subcontractors were also actively engaged.
- Start of VCA trainings ("Veiligheid, Gezondheid en Milieu Checklist Aannemers", which means "Safety, Health and Environmental Checklist for Contractors") for colleagues: The VCA training covers safety aspects related to fire, explosions, dangerous materials, machines, tools, lifting, noise, vibrations, works on heights, heat, cold and personal protection. These trainings are offered for work preparers, construction workers and craftsmen.
- **Organisation of a safety breakfast with suppliers:** A safety breakfast has been organised in the past and allowed for a successful exchange of safety aspects. During this breakfast, "Talking

Cards” were made available that allowed for easier conversations. These Talking Cards provide topic suggestions and questions to ask each other.

- **Transparent and accessible communication:** Van Wijnen informs colleagues in an accessible way how and why working processes are improved in order to comply with the safety norms. Examples include: Construction site regulations , Company emergency response measures , Company risk inventory and evaluation and procedures that concern dangerous materials.
- **Annual safety audits** allow to detect safety aspects on and around the construction site.
- **A BLVC plan** (“Bereikbaarheid, Leefbaarheid, Veiligheid en Communicatie”, which means “Accessibility, Livability, Safety and Communication”) is a document that outlines regulations, responsibilities and agreements concerning the building project. It entails a description of the project surroundings, risk analysis, plans concerning safety, reachability, communication and livability.

1.6 Approach to Equitable Employment Conditions

ITeC commitment to Equality

ITeC outlines its commitment to equality through its **Code of Good Governance and Good Management Practices**, emphasising principles such as equal opportunities, non-discrimination, and respect. The code is a [public document](#) detailing the institute's ethical standards and business practices.

2. List of best practices

Dimension	Country /level	Year	Title	Short description
End User Engagement	EU	2015-2020	BuildHEAT Project	Engaged neighbours from the onset of renovation works, using sensors and surveys to assess pre-renovation comfort levels and conducted workshops to familiarise residents with new installations, ensuring their active participation throughout the renovation process.
Enduser Engagement	EU	2005-2008	Renaissance Project	Focused on renovating private houses with a participative approach, involving neighbours in the decision-making process to ensure the renovations meet community needs and preferences.
Enduser Engagement	Spain	2016-2020	REHABITA	A community-driven project aimed at improving public spaces through participatory processes, including a school-workshop that engages unemployed individuals from the neighbourhood, fostering community development and social inclusion. Implemented in various cities to foster urban area regeneration through participative processes. It involved creating groups of neighbours, including women, from 10 neighbourhoods. These groups received training to regenerate public spaces and determine their future maintenance.
Enduser Engagement	EU	2020-2024	RINNO	Aimed to accelerate the rate of deep renovations across the EU by developing an operational interface with augmented intelligence, focusing on an occupant-centered approach that will streamline and facilitate the whole lifecycle of building renovation (planning-design, retrofitting, monitoring).
End User Engagement	Netherlands	-	Neighbourhood Restaurant by Lefier	A social initiative that transforms a flat into a community hub where residents can engage in social activities, volunteer work, and personal development, promoting community cohesion and individual growth.
Enduser & Stakeholder Engagement	EU	2019-2024	POCITYF	Involved tenants and community members in construction and renovation efforts, ensuring their needs and preferences are considered and keeping them informed and engaged throughout the project lifecycle. POCITYF engages city administrators, planners, universities, entrepreneurs and citizens in a coordinated effort to model the future development of European cities.

Enduser & Stakeholder Engagement	EU	2018-2023	HOUSEFUL	Focuses on end-user engagement with public landlords. This project demonstrates how renovations can proceed effectively while dwellers remain in the building. The project employs a co-creation process to address the variety of levels of acceptance from the political perspective, the community perspective and particularly, at the individual perspective of households and tenants in terms of the attitude and behavioural response or to the implementation and adoption of the HOUSEFUL solutions.
Enduser & Stakeholder Engagement	Spain	2014-2017	Efidistrict	<p>The Efidistrict project was part of LC Districts project, which aimed to revitalise an ageing district by improving the quality of life of its residents through three actions:</p> <ul style="list-style-type: none"> - The complex energy renovation of the buildings in the district including their thermal envelopes - The renovation of the old district heating systems existing in the neighbourhood to improve their performance: renewal and improvement of the distribution networks through the inclusion of energy saving measures, supported by the inclusion of systems and control - The creation of a new district heating network, where heat is generated from biomass to supply the whole neighbourhood (public and private buildings). <p>What makes Efidistrict an appropriate study case is its holistic approach and its tested methodology of citizens' awareness.</p>
Stakeholder Engagement	Spain	2013-2018	Santa Coloma de Gramanet "Renovamos barrios"	The project renovated a whole street, involving 32 buildings and 649 inhabitants, showcasing successful coordination and execution, now being replicated in another city area.
Affordability	Netherlands	2018-present	Inclusive Living by VW	Addresses the elderly's need for adaptable, affordable, and sustainable living environments, fostering independence and community connections within familiar neighbourhoods and leveraging existing social networks.
Affordability	Spain	-	Energy poverty Initiatives by Zaragoza Vivienda	Zaragoza Vivenda has implemented several initiatives to combat energy poverty, including energy audits and advice for the general public and those in social housing provided by the Municipal Social Services Centers and other social organisations. A socio-energy support program initiates at the lease-signing stage, offering tailored advice on energy contracts based on individual needs, which helps avoid unnecessary costs. This program also includes guidance on the efficient use of home facilities and appliances, followed by optional year-long monitoring to optimise

				energy use and provide additional savings tips through workshops.
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