

Vitoria-Gasteiz: Retrofitting Package

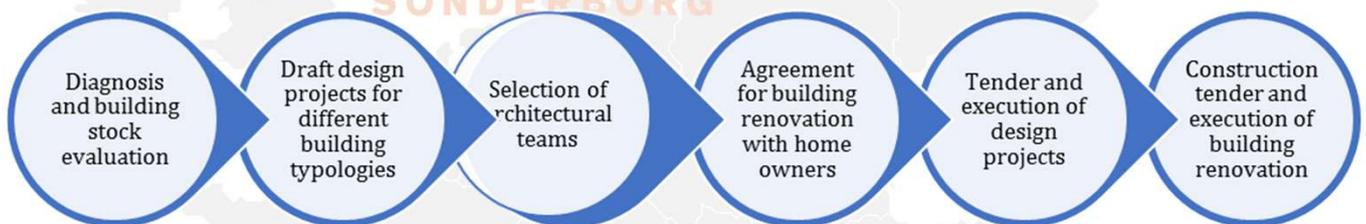
Overview

The building renovation intervention consists mainly of envelope retrofitting, which involves the intervention in the façade and cover, improving insulation and air tightness and installing new low-energy windows and doors. The Coronación neighbourhood was chosen for Vitoria for this intervention as it was identified as the city’s most vulnerable neighbourhood in terms of social issues, stability, habitability, accessibility and energy efficiency. This district reflects the major challenges in terms of retrofitting and implementation of smart city concepts: very high density, low-medium income and relevant social dimension. The refurbishment of up to 750 homes is co-financed by the SmartEnCity project, and the Basque Country Government has agreed to co-finance in the same way for any other houses in the demo area, if this number is exceeded.

Business Models

The estimated cost for the retrofitting interventions is 21,000 EUR on average, including the connection to the district heating network. There are some buildings where the costs are higher because of its initial characteristics (more complex interventions due to existing walls). The final price for the house owners, after discounting the H2020, Basque Government and Vitoria Municipality grants, is 9,600 EUR on average. The Basque Government and Vitoria Gasteiz Municipality will create a guarantee fund for those who cannot afford this investment. The current heating and hot water costs per house are estimated to be around 600 EUR/year on average, corresponding to about 5,000 kWh for room heating and 1,300 kWh for hot water.

Process

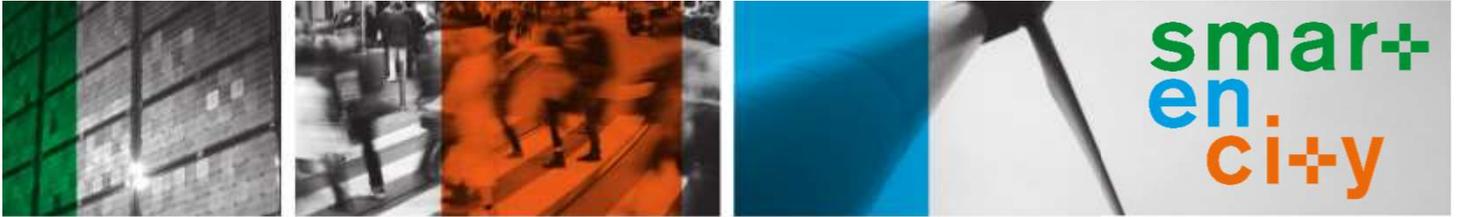


Citizen Engagement

Community involvement and citizen engagement is particularly relevant due to the nature of the building retrofitting interventions. The interventions are carried out in private houses and the residents’ opinion is decisive. In Spain, if the majority of a building’s residents do not agree with the intervention, this might be an insurmountable barrier for the action. Therefore, various agents are involved in the discussions about building refurbishment in the district and a municipal website was set up in order to make the main information accessible to all inhabitants in the beginning of the project.

Benefits

- Increased property values
- Increased health and quality of life
- Increased energy efficiency
- Reduction of energy bills
- Reduction of carbon emissions
- Increased comfort
- Social integration
- Job creation
- Behavioral change



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Stakeholders

| | |
|-----------------------------|---|
| Owner(s) | VIYESA |
| Service/Technology Provider | Architectural teams, construction companies |
| Users | Home owners |
| Investors | Home owners, public funding |

Investment/Finance

ca. 15 million €



Replication Potential

With many cities in Europe having serious problems with thermal performance in a significant part of their building stock, opportunities for replicating energy efficiency related renovation solutions are plentiful. The management of these renovation processes, including involvement of public and private sectors, citizen engagement practices and regulatory and contracting practices that have been implemented within the SmartEnCity project in Vitoria-Gasteiz can serve as a good basis for replication in many other cities.

Contacts

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