The Urban Lab of Europe!

CASE STUDY

REPORT

Integrated development in action!

PROJECT

Vilawatt - Innovative local public-private-citizen partnership for energy governance

Viladecans, Spain

TOPIC

Energy Transition

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Viladecans - VILAWATT

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About Vilawatt

Viladecans in Spain sought to transform the energy efficiency of apartments in the city through a comprehensive project in one neighbourhood Montserratina, where housing was built in the 1960s and 70s before modern energy efficiency regulations were adopted. The project involves a governance based on a Public Private Community Partnership. It has four main elements: energy efficiency (for 56 housing units), advice on energy efficiency, energy supply and an alternative currency called Vilawatt. The currency is used to reward people who make energy savings and can be spent in local shops and for local services.

This case study illustrates place-based and multi-level governance principles of the integrated territorial development.

Vilawatt project partners (copyright city of Viladecans)

The VILAWATT project was implemented to initiate an energy transition process based on improving energy efficiency through energy advice and consultancy, retrofitting buildings and the provision of energy. This is all managed through an innovative governance structure (local public-private-citizen partnership-PPCP). A local currency also called Vilawatt is used to reward people for making energy savings. Although the project ended in 2021, the essence of Vilawatt remains even beyond the limits of the municipality. The tools designed during the implementation phase remain active and used in the city. The project has been transferred to other cities under the UIA-URBACT Transfer Mechanism initiative.

Vilawatt in Viladecans, Spain, was chosen as a case study because it shows how integrated territorial development works in practice in a medium sized city. The project also developed an innovative approach to partnership, involving citizens and working in an area of the city where needs are very high. It has been successful at

mainstreaming the approach to innovation within the municipality and in transferring it to other cities through the UIA-URBACT transfer mechanism.

Context

This case study explores how the Vilawatt has been pursuing these objectives in the light of the key principles of Integrated Territorial Development.

Building regulations to cover energy efficiency were only introduced in Spain in the late 1970s. As a result apartments and houses built before this time are not efficient in terms of insulation, draft-proofing, double glazing and heating systems. The city of Viladecans decided to pursue a local approach to energy efficiency in the most deprived third of the city in Montserratina which has a population of about 20,000 people.

Description

Governance innovation at the heart of the project

The municipality of Viladecans understood that systemic changes in delivering energy efficiency solutions could only be accomplished by challenging the status quo. This entailed developing a new governance structure at local level able to be more agile than the national one. Thus, the partnership of Vilawatt project committed to create the Public-Private-Citizen Governance Partnership at the Local level (PPCP), an innovative multi-stakeholder and multi-level governance mechanism. The PPCP oversaw four key elements of energy management: energy supply, energy culture, retrofitting of buildings and a local virtual currency linked to energy saving in the city. The municipality entrusted Gestromat, a regional consultancy in neighbourhood communities and social mediation, as the project partner coordinating the development of the PPCP.

In order to draft the PPCP, the Vilawatt partners had to first test how each element could work in practice at local level. They did so by retrofitting three demonstration apartment buildings in the Montserratina neighbourhood and creating city-wide tools of citizen engagement in energy efficiency policies. For example, the company UBIQUAT led the development of the virtual currency, together with the municipality and the two municipal companies VIGED and VIMED in charge of technical rehabilitation and legal aspects. The virtual currency became a powerful incentive for local residents to commit to energy efficiency measures and be able to spend their newly acquired Vilawatts on products or services from over 400 locally owned businesses.

Being able to foster such a cross-sectoral approach required adaptation during the project implementation and tight coordination, as Xavier Matamala from GESPROMAT, describes:

> After the first year of implementation, we decided to change the project management approach. The main problem in implementation was the risk management. So you have to think that there are three basic issues for Vilawatt. It was difficult technically, economically and legally. There were a lot of actors, with a project coordination meeting having 21 people. Each of these people would report to their teams and coordinate activities. And the bigger problem was the dependency between all the paths. So if one path was going slower, in fact, the state to the other parts couldn't go forward. So to try to minimise the risks, we divided the work between three working groups: coordination, virtual currency and rehabilitations.

After overcoming many difficulties to find a way through, the PPCP has its own legal structure and is regarded as one of the strongest social innovations for community energy in Europe having been nominated for the Regiostars Award.

Mainstreaming the innovation mindset at municipal level

Due to a strong and visionary team inside the Viladecans municipality, there was a lot of attention given to the scaling and transfer of the practices tested in Vilawatt. For example, the place-based approach of the project included testing the PPCP in the Montserratina neighbourhood and then scaling interventions that would benefit the city as a whole (energy communities, local currency, energy supply system).

> Now that the pillars of Vilawatt are consolidated in the city, we are working on starting new projects, always keeping the innovative component. And regarding the energy supply pillar, for example, right

now, we are in a second aggregate purchase process to obtain better prices for our associate partners.

Arnau Alarcon from the Urban Ecology Agency of Barcelona (BCNECO) explains:

> One of the innovative initiatives that we are currently trying to push forward are the energy communities. This is an approach that did not exist during the first phase of our UIA initiative. So how to create the conditions to develop them. I think that the first condition, and for me the most important, is to continue working to increase the energy culture of the city to create energy communities and citizen participation is very, very necessary, but citizens will never participate if they are not empowered. From here, the next condition is the political will to investigate new ways of relating to citizens, the political will to acquire the necessary technical tools. We are now working on this.

In fact, Vilawatt has directly informed the action plan of key strategic policy documents for the City of Viladecans. For the city's 2030 strategy, the continuation of Vilawatt is seen as instrumental for the objective of making Viladecans a climate neutral city. Moreover, in 2021, Viladecans signed an agreement with the Spanish Ministry of Transport, Mobility and Urban Agenda to be a pilot city in the elaboration of the local Urban Agendas. Thus, Viladecans Urban Agenda now contains 134 specific actions, out of which 7 directly refer to scaling up the Vilawatt project.

The Vilawatt project was a strong catalyst for changing the organisational culture inside the municipality. Named the City Council Innovation Model or the Modelo de Innovación del Ayuntamiento de Viladecans (MIA), its mission is to "transform the City Council into a proactive organisation which creates new forms of citizen collaboration improving the quality of life of the city in a sustainable way and making people proud to be part of it".[1] MIA now works over seven axes such as digital, educational and public space innovation, and Vilawatt was instrumental for testing how the axis on urban ecological and economic transition could work in practice. Moreover, after completion in 2020, Vilawatt's experience has been recognised as worthy of being transferred to other European cities through an URBACT-UIA transfer mechanism (UTM). The partner cities in this innovative UTM are Seraing in Belgium, Nagykanizsa in Hungary and Trikala in Greece.

Energy Currency (c) Vilawatt project

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[1] Viladencas Municipality, MIA Abstrat, October 2021, pg 4

Nature of integration

Place-based

In Vilawatt, the main intervention on housing improvement was in a small part of the Montserratina neighbourhood which covers about a third of the city with a population of 20 000 living in 8000 dwellings. It was

chosen because it is a disadvantaged area with low incomes and with poorly insulated housing built in the 1970s when building regulations on energy efficiency were first enacted. Fifty six dwellings had their energy efficiency improved by insulating, installing double glazing and draught-proofing. These works cost an estimated €1.4million. Other aspects of the project, managed through the public-private-community partnership including the dissemination and training activities on energy efficiency and the alternative currency Vilawatt, applied across the whole neighbourhood and later extended to the whole city.

So because of the law in Spain, we needed to have, you know, all the agreements of the 100% of the resident partners to the action. So we try to design a thing inside the law, but we had to innovate in the interpretation of the framework to be able to do the subsidy for the community, we had to think in a lot of different ways here. I remember a lot of conversations between TV and media, late at night trying to find the right solution to be able to operate both inside and outside the dwellings with a majority of the concerns of the neighbours. Alicia Valle project coordinator at the time.

Multi-stakeholder governance

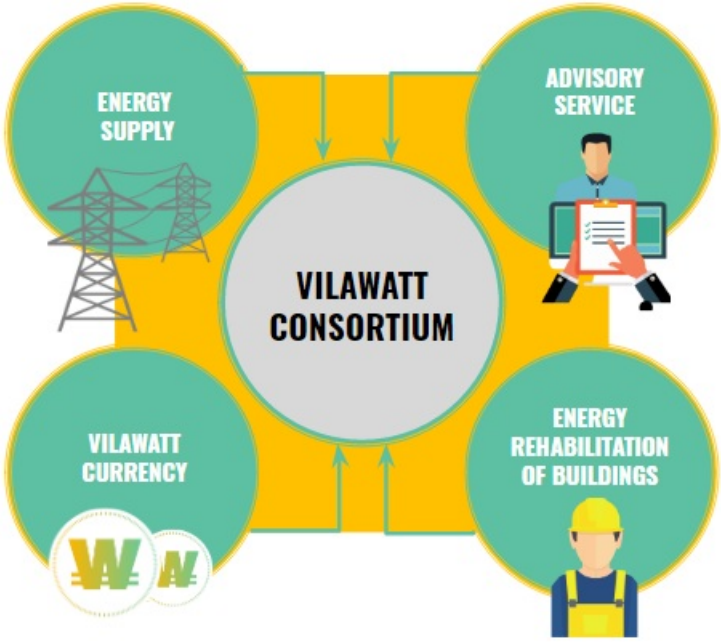
VILAWATT aimed at developing a new energy culture to ensure a secure, clean and efficient use of energy, with the help of a new local energy supplier and an energy savings company to offer renovation investments. The VILAWATT partnership involves a wide variety of organisations: a set of municipal and private companies, research centres, cooperatives and public agencies in what could be considered a quadruple helix strcuture.

Multi-stakeholder governance was at the core of VILAWATT: the governance of the project was organised around an innovative Public-Private-CitizenPartnership at the local level (PPCP), involving the municipality together with local businesses and citizens, and acting as a central hub to provide energy and services related to energy culture, the retrofitting of buildings and a local currency linked to energy savings. The PPCP steered the process and embodied the project's horizontal leadership to coordinate the engagement aspects while project partners participated in the project's vertical leadership, "implementing individual parts of the programme by working down all the chains of levels." (Journal 1, p.38) The setting up of the PPCP is described below by a senior project coordinator from the municipality:

> "We didn't prepare a strategic participatory plan at the beginning. So in our application form, we didn't foresee this. So once we had it clear in our minds that we needed to have a local currency working, we needed to create a PPCP and to have the ppcp, we needed to have two associations, which were not created from the beginning, they have had to be created. And also we didn't have any previous experience in Viladecans in associations linked to energy or environment or these kind of associations"

Cross-departmental work was key to the project's success: the Group of Municipal Enterprises allowed various public companies to act together as a single partner, ensuring effective coordination both internally and externally. The project's multi-level governance was assured by the involvement of other public authorities like the Housing Agency of Catalonia, the Metropolitan Area of Barcelona and the Badia del Vallès city council. Furthermore, VILAWATT is aligned with the Catalan Strategy Energy Renovation at the regional level.

Several private actors such as UBIQUAT, a virtual currency design company, were brought in as shareholders, rather than suppliers, a position that enabled co-creation and innovation to happen within the partnership and on an ongoing basis. it would have been very difficult to tender for such a process as the amount of work would have been unclear.



Vilawatt consortium as its governing body (c) Vilawatt project

Scaling up and Transfer

After completion in 2020, Vilawatt's experience has been recognised as worthy of being transferred to other European cities. The partner cities in this innovative Urbact UIA Transfer Mechanism (UTM) are Seraing in Belgium, Nagykanizsa in Hungary, and Trikala in Greece.

In a series of webinars, the project partners have learnt about the five pillars that make up Vilawatt Innovative Practice: retrofitting, energy communities, public-private-citizen partnerships, energy pooling, citizen engagement in energy efficiency strategies, and incentive programs to generate project buy-in.

> What we are transferring is the main functions or objectives of the different pillars of the project, not the exact solutions Vilawatt applied.

Viladecans municipality representative

Participation in Urbact UTM has already helped the partner city Trikala with its Energy Transition Strategy 2030. Trikala is developing such a strategy as one of the six Greek municipalities chosen by the EU to be part of the 'Climate Neutral and Smart Cities' initiative. If all goes to plan this will make the city climate neutral by 2030, twenty years earlier than the European Green Deal. Within this mission, research and innovation, combined with novel forms of governance and collaboration, and citizen participation transferred from VILAWATT will play a decisive role.

Takeaways

- Innovative governance models such as the PPCP should be converted into legal forms if possible. This legal form has given the PPCP a stable partnership basis on which to continue after the end of the project and guarantees the ongoing involvement of the private and third sector.
- Scaling up by following a similar model across other policy areas within the municipality and by spreading the initiative to other
- Incentive structures can be used to encourage or nudge citizens into new behaviours - in this case through rewarding citizens for energy saving by using an alternative currency. Local currencies can be used to nudge behaviour among citizens. However, they are complex to set up, and depend on national rules. They may raise issues for some users who are in receipt of state benefits. It takes time and energy to build a strong user base, even when users stand to gain financially.
- The UIA-URBACT transfer mechanism can be an effective way of helping other cities to replicate what the lead city has achieved, but in an 18 month period not every part of a complex project will be transferred.

Further reading and selected key resources

- OPSI case study on Vilawatt
- Viladecans energy strategy

See on UIA website