

FINAL REPORT

LIFE22-CET-BIRTUOSS



Co-funded by
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LIST OF ACRONYMS



- **BIRTUOSS:** Basque Integrated Renovation model (Opengela): enabling a fair, clean energy Transition through a Unique network of One-Stop Shops.
- **HIROSS₄all:** Home Integrated Renovation One-Stop Shop For vulnerable districts.
- **OSS:** One-Stop Shop.
- **EED:** Energy Efficiency Directive.
- **EPBD:** Energy Performance of Buildings Directive.
- **PNRE:** Spanish National Building Renovation Plan

Note: Throughout this report, Opengela (capitalised) refers to the Basque urban regeneration programme/model and the network of neighbourhood offices. By contrast, opengela (lower case) refers to an individual neighbourhood office, that is, the physical OSS operating at neighbourhood level.

CONTENTS



1. <u>The BIRTUOSS project and the Opengela model</u>	4
2. <u>Main outcomes</u>	9
2.1. <u>Qualitative outcomes</u>	9
2.1.1. The renewed service: the neighbourhood office as a OSS	9
2.1.2. The TorreUrizar living lab: co-creation and validation of the model	11
2.1.3. The regional network: the model extended to the Basque Country	16
2.2. <u>Quantitative outcomes</u>	24
2.2.1. Opengela in numbers	24
2.2.2. Results from the TorreUrizar living lab	25
3. <u>Lessons learned</u>	27
3.1. From a social and participatory perspective	27
3.2. From a technical and administrative perspective	29
3.3. From an economic and financial perspective	30
3.4. From the perspective of governance and replicability	33
4. <u>Recommendations</u>	35
4.1. For the local and regional levels	35
4.2. For the national level	38
4.3. For the European level	41
5. Opengela in images	43

THE BIRTUOSS PROJECT AND THE OPENGELA MODEL



The housing stock in the Autonomous Community of the Basque Country faces major challenges. A significant proportion of its housing stock was built between the 1960s and the 1980s, against a backdrop of rapid urban growth and with standards of habitability, energy efficiency and accessibility that fall far short of current requirements. This involves **thousands of old dwellings**, lacking insulation and adapted access, which in practice result in inadequate living conditions for their residents, as well as high energy consumption and carbon emissions from the residential sector.

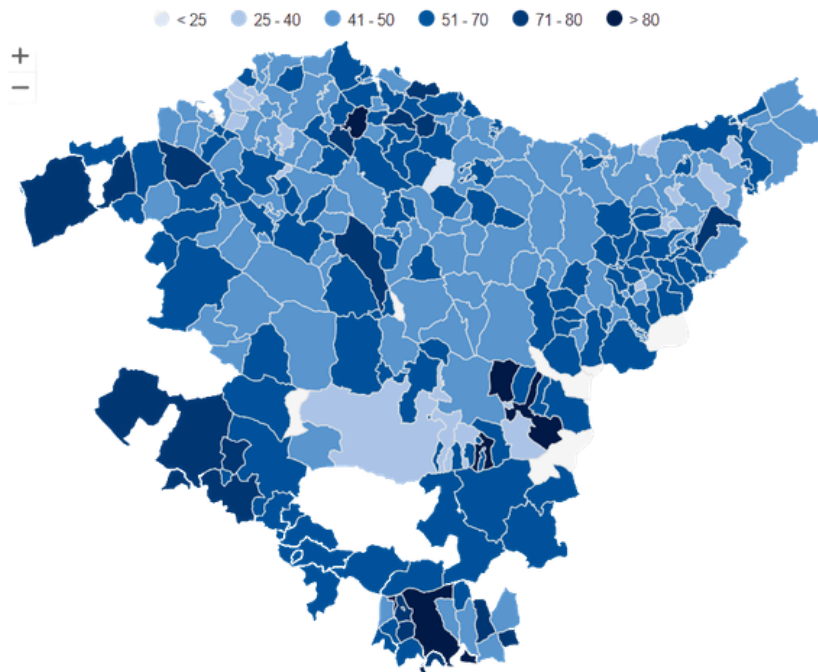
Many of these buildings are concentrated in neighbourhoods that the Basque Country's Inventory of Vulnerable Areas (developed on the basis of the identification and characterisation of Vulnerable Urban Areas in the Basque Autonomous Community, a process that began in 2011) has identified as **areas of high or very high**

urban vulnerability, where the condition of the built environment is intertwined with situations of socio-economic fragility.

Addressing this reality from a holistic perspective –technical, social and financial– is the starting point for BIRTUOSS, and the reason why this project is aligned with the objectives of the Basque Country's Bultzatu 2050 Urban Agenda:

**The aim has been to
regenerate the housing
stock as a necessary step
towards a fairer, more
sustainable and more
resilient society**

to regenerate neighbourhoods as a necessary step towards a fairer, more sustainable and more resilient society.



Map showing the average age of dwellings in the Basque Country by municipality (2024). Source: Eustat

The project emerged within the context of the **Opengela model, the Basque network of neighbourhood offices for urban regeneration**, which had taken its first steps as part of the European HIROSS4all project (2019), with two pilot experiences in the neighbourhoods of Otxarkoaga (Bilbao) and Txonta (Eibar), to which two further pilot experiences were added in 2020: Aramotz (Durango) and Basaundi Bailara (Lasarte Oria). These pilot experiences demonstrated the model's potential, but also highlighted the need to scale it up, make it more institutionally robust and establish a governance framework to ensure its sustainability. BIRTUOSS took over from HIROSS4all with the aim of strengthening the services provided by the offices and continuing efforts to consolidate the institutional, regulatory and territorial framework that would enable the model to operate throughout the Basque Country and ensure its long-term sustainability.

Building on what has already been established within the framework of the Opengela programme, BIRTUOSS's central focus is to **position the neighbourhood as the unit of intervention**. The model proposes a coordinated approach to the residential fabric as a whole, generating critical mass, optimising public resources and addressing the energy, social and urban planning challenges of each area in an integrated manner. This scale of intervention is not merely a question of efficiency: it is also a prerequisite for equity, as it enables households and communities to be included in the regeneration process who, on their own, would struggle to undertake a project of this nature. The neighbourhood-based approach also enables **the local community to be mobilised as a key player in the process**, rather than merely as a beneficiary of the initiatives.

To this end, the project has focused on three complementary areas. The first, as already mentioned, is to **consolidate and expand the Opengela model itself**, demonstrating that driving urban regeneration does not depend solely on having technical solutions or financial instruments at one's disposal, but on the ability to build trust, reduce perceived complexity and support homeowners' associations throughout a process that, in many cases, spans several years. It is not, therefore, merely a one-stop shop (OSS) for administrative procedures, but a local agent dedicated to the transformation of neighbourhoods.

The second focus is the **TorreUrizar living lab**, a unique residential complex in Bilbao where the solutions developed throughout the project have been implemented and validated under real-world conditions. It has served as BIRTUOSS's space for co-creation and experimentation: a place where resident participation has shaped the solutions adopted, ranging from the installation of lifts in the entrance halls to the refurbishment of the building envelope using external thermal insulation composite systems (ETICS), the renaturalisation of outdoor spaces, and the monitoring of comfort and energy consumption. As detailed below, the initial comparative data between the 2024–2025 and 2025–2026 seasons are already yielding tangible results in terms of energy consumption and indoor comfort within the homes.



Outdoor view of the TorreUrizar building complex following the urban regeneration works. Source: Bilbao Municipal Housing

The third area is **the geographical roll-out of the model**. Throughout the BIRTUOSS project, the Opengela network has grown from the two initial offices to 25 neighbourhood offices in 28 neighbourhoods across the Basque Country —13 in Biscay, 13 in Gipuzkoa and 2 in Álava—, organised around a multi-level governance structure that combines the strategic leadership of the Basque Government with the operational leadership of the local councils and the support of local expert organisations.

**The Opengela network
has expanded to include
25 neighbourhood offices
across 28
neighbourhoods in the
Basque Country**

This roll-out has been supported by various sources of public funding.

A strong, diverse and connected consortium

Coordinated by the **Basque Government's Directorate for Neighbourhood Regeneration and Urban Agenda** —which has the mandate and capacity to drive forward the legislative and financial instruments necessary for urban regeneration at a territorial level—, the BIRTUOSS consortium comprises 14 partners, including public authorities, energy agencies, specialist technical bodies, organisations from the construction sector and European stakeholders.

The **Basque Energy Agency** contributes through its mission to promote energy efficiency in the Basque Country, whilst **BUILD:INN** (the Basque construction cluster) represents the entire value chain of the construction sector. The **CAVIAR** research group at the University of the Basque Country (EHU) provides the academic and urban analysis dimension; **GAIA** (the knowledge and technology industries cluster) brings expertise in digitalisation and applied innovation, and **Aclima** (the environment cluster) incorporates the perspective of environmental sustainability.

Meanwhile, **Bilbao Municipal Housing** has been the operational partner in the TorreUrizar living lab, playing a central role in implementing and supporting the participatory process with the local community. **EDE Fundazioa** brings proven expertise in social intervention in vulnerable contexts, an element that has proved strategic to the model.

Cíclica contributes through its expertise in decarbonisation strategies and sustainable

urban regeneration; **GNE Finance** addresses the financial aspect, to ensure the sustainability of the model and explore instruments and solutions that facilitate property owners' access to finance, and **Gabineteseis** has been responsible for the project's communication and promotion.

Lastly, **Zabala Innovation** brings its expertise in European project management and technical coordination, whilst **FEDARENE** (European Federation of Regions and Energy Agencies) and the **Green Building Council Spain** (GBCE) anchor the project at the European and national levels, facilitating the transfer of the model to other regions and its contribution to the debate on regulation and public policy.



Members of the BIRTUOSS project consortium at the final event in Alcalá de Henares, Madrid (June 2026). Source: BIRTUOSS consortium

This European presence is not merely a formality. FEDARENE and GBCE also participate in **EU PEERS**, the Community of Practice for Integrated Residential Rehabilitation Services, which brings together OSS providers from across Europe and promotes their expansion, shares knowledge and puts forward public policy recommendations at EU level. This makes the consortium a direct bridge between Basque expertise and the European network of rehabilitation offices, ensuring that the lessons learnt from Opengela contribute to the debate on the renewal of the housing stock. This report sets out the results of a model that originated in the Basque Country with the aim of being useful to Europe.

MAIN OUTCOMES



2.1. QUALITATIVE OUTCOMES

2.1.1. The renewed service: the neighbourhood office as a OSS

Beyond improving a service, one of the main qualitative outcomes of BIRTUOSS is the consolidation of an operational model capable of triggering regeneration processes in real-world contexts. Building on the experience of HIROSS4all, the project has enabled a shift from **an approach centred on technical assistance towards an integrated system based on proximity, trust and active coordination between stakeholders**. This shift in approach has proved crucial in overcoming the identified non-technical barriers (social, organisational and administrative) and moving towards urban regeneration processes at neighbourhood level.

In this context, Opengela's renewed model should be understood not merely as an advisory service, but as **a framework for ongoing support** that coordinates the relationship between citizens, public authorities and technical experts throughout the entire process.

This support is organised into a three-phase process —diagnosis and action plan, implementation and follow-up— which helps to structure the intervention and facilitate decision-making by the owners' associations.

Experience from the project shows that the implementation of regeneration does not depend solely on the availability of technical or financial solutions, but, above all, on **the ability to build trust, reduce the complexity of the process and facilitate collective decision-making**. In this regard, one of the model's distinguishing features is its proactive nature. Unlike traditional approaches based on the provision of services on demand, the neighbourhood offices take on a role of facilitation, mobilisation and coordination, supporting citizens throughout all stages of the process, mediating between stakeholders and anticipating potential bottlenecks.



Video showing the urban regeneration process in 25 urban areas in the Basque Country. Source: Opengela Youtube channel

The roll-out of the model is based on the gradual introduction of ‘opengelas’ as local services, enabling resources, functions and professional profiles to be adapted to the level of maturity of each intervention area. This approach facilitates the **scalability of the model**, avoiding the need to deploy all capabilities from the outset and allowing for gradual development in line with the local context and demand.

Furthermore, the model effectively **integrates aspects that have traditionally operated in a fragmented manner**. From a technical perspective, it incorporates measures relating to energy efficiency, accessibility, and the improvement of living conditions and public spaces in neighbourhoods. From a social perspective, it strengthens support for local communities, particularly in vulnerable contexts, where trust and mediation are essential. Added to this is the legal and administrative dimension, which is necessary for organising formalities, community agreements and administrative procedures. The model also includes a financial dimension, based on a public framework established through agreements between the Basque Government and local authorities, complemented by public funding and specific support for vulnerable households.

In this context, initiatives such as the TorreUrizar living lab have helped to strengthen collaboration with financial institutions and **facilitate access to funding** for owners’ associations, demonstrating the potential of the neighbourhood office to act as an intermediary between citizens, public authorities and economic entities.

Another key development is the **validation of a neighbourhood-scale approach**. The BIRTUOSS project reinforces the need to move beyond isolated interventions in individual buildings and towards urban regeneration strategies that generate critical mass, optimise resources and enable a coordinated approach to addressing energy, social and urban

planning challenges. In this regard, the neighbourhood office acts as the cornerstone of the process, linking strategic planning with local implementation, within a governance framework based on coordination between the Basque Government and the local authorities.

Overall, the renewed Opengela model goes beyond a purely functional evolution of the service: it represents the **consolidation of a replicable model for managing urban regeneration**, based on community engagement, institutional coordination and the ability to drive genuine processes of urban transformation.

A key step forward is the validation of a neighbourhood-scale approach, moving beyond isolated interventions in individual buildings

2.1.2. The TorreUrizar living lab: co-creation and validation of the model

TorreUrizar is not merely another example of the 28 neighbourhoods where interventions have taken place. It is also the setting in which the project has taken shape. Located in the Irala neighbourhood (Bilbao), this housing complex has become a living lab, a space for experimentation. This social housing complex, designed by Ricardo Bastida in 1919, was developed by the City Council itself in accordance with the law on affordable housing for social rental. It consists of a single block with **25 entrances and 264 homes**.

It is a building of great architectural value, outstanding and pioneering in the field of affordable collective housing, set in surroundings featuring extensive green spaces and three internal courtyards.

TorreUrizar, a building complex comprising 25 house numbers and 264 homes in Bilbao, has become the project's living lab



Pictures of TorreUrizar, in the Irala neighbourhood of Bilbao, which was built over a century ago. Source: Bilbao Municipal Housing

TorreUrizar is unique for the quality of its design, and has a ‘basic’ conservation status (type C) under Bilbao’s General Urban Development Plan. Over the building’s hundred-year history, various maintenance works have been carried out, along with improvements to the surrounding area and infrastructure, which have generally respected the building’s style and appearance.

Although some repairs had been carried out previously, further work was still required to improve the building complex. The challenges identified focused on:



**Accessibility
improvements**



**Energy
efficiency**



**Heat
island**

In addition, specific problems had been identified, such as damp and leaks, and some façades were visibly deteriorating.



Video on the involvement of the TorreUrizar local community in the urban regeneration process and the role of the 'opengela'.
Source: Opengela Youtube channel.



The process of co-creation with the local community

The co-creation process is carried out in full compliance with the provisions of the Spanish Horizontal Property Act at all times. The decision-making process is as follows:

- First, a meeting of the Association's Works Committee is convened, attended by the 25 chairpersons, at which the items on the agenda are explained and any questions or concerns are addressed.
- Following this, building meetings are held, during which each residents' association votes on the matters discussed at the previous Works Committee meeting.
- Finally, a Community Association meeting is held, during which each of the chairpersons reports the number of votes obtained at the board of the building.

Finally, the following solutions have been implemented:

- **Universal accessibility:** Installation of one lift per entrance and modification of the stairwell and doorway (except in buildings where a lift already exists), as well as modification of access points to doorways and public spaces to ensure universal accessibility.
- **Energy-efficiency refurbishment** of the building envelope, including external and internal thermal insulation in the communal stairwells. The solution preserved the original design of the façades by reproducing the mouldings across the entire building envelope. Insulation has also been added to floors in contact with the outside air, and the joinery has been partially replaced.
- **Photovoltaic installation** on rooftops.
- **Renaturalisation** of the inner courtyards and landscape improvements through a participatory process involving local residents and collaboration with the local council in the design of the solutions.



Illustration of the nature-based solutions proposed for TorreUrizar. Source: Bilbao Municipal Housing



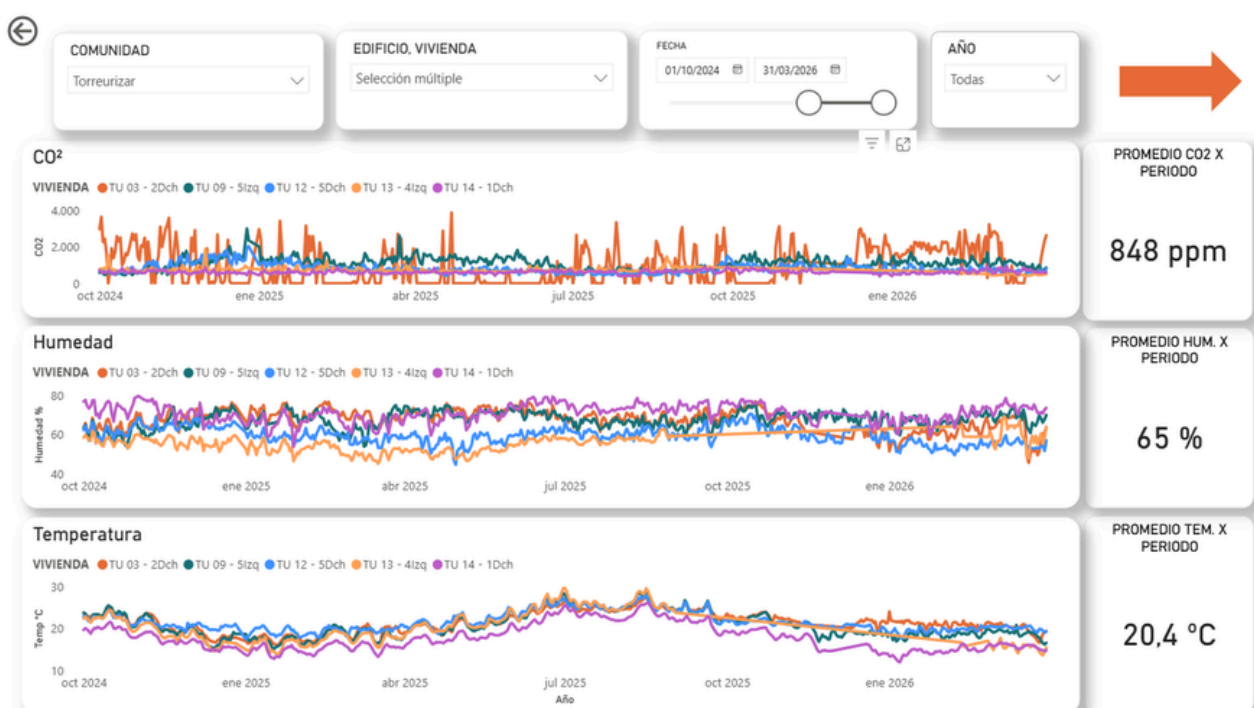
Tracking: evidence of the impact

The impact of the energy-efficiency refurbishment has been verified through measurements of indoor air quality, comfort, energy consumption, etc. Information on these results has been sent to owners by post. The installed equipment records:

- Indoor temperature and humidity (living room).
- Thermal energy (natural gas meter) and electricity consumption.

As a result, the first comparative data for the 2024–2025 winter season can be viewed, prior to the refurbishment, and the 2025–2026 season, with the buildings already refurbished. As can be seen from the following graphs, the average indoor temperature has risen from 18.8 °C to 20.4 °C.

Following the refurbishment of the buildings, the average indoor temperature has risen from 18.8°C to 20.4°



Variation in emissions, humidity and average temperature in the homes of the buildings undergoing renovation. Source: Bilbao Municipal Housing

2.1.3. The regional network: the model extended to the Basque Country



The network of offices established

The foundations of the Opengela model were laid in 2019 as part of the European HIROSS4all project (Horizon 2020). It began with pilot experiences in Otxarkoaga (Bilbao) and Txonta (Eibar), before expanding to include two further neighbourhoods: Aramotz (Durango) and Basaundi Bailara (Lasarte-Oria). The neighbourhood offices established under these pilots have remained operational through support from the Next Generation programme.

From 2023 onwards, and as part of the BIRTUOSS project, the model entered a phase of regional roll-out and consolidation across other municipalities in the Basque Country, driven by the results achieved in the pilot experience and supported by a combination of different public funding sources.

In the **first phase**, **six offices** were set up in areas designated as Priority Action Zones (ZAP), funded through the Basque Government's Berpiztu programme.

In the **second phase**, the network added **12 new offices** located in areas identified as having high or very high levels of vulnerability in the Basque Country's Urban Vulnerability Inventory, with funding from the 2022–2024 Inter-institutional Strategic Investment Plan.

Finally, in **2026**, **three new offices** were launched, strengthening the model's geographical coverage.

As a result, the Opengela network currently comprises **25 neighbourhood offices** operating in **28 neighbourhoods across the Basque Country**, spread across 13 neighbourhoods in Biscay, 13 in Gipuzkoa and 2 in Álava.

13

Biscay

13

Gipuzkoa

2

Álava



A map showing the offices of the Opengela network across the Basque Country. Source: Google Maps

Key features:

Multi-level governance

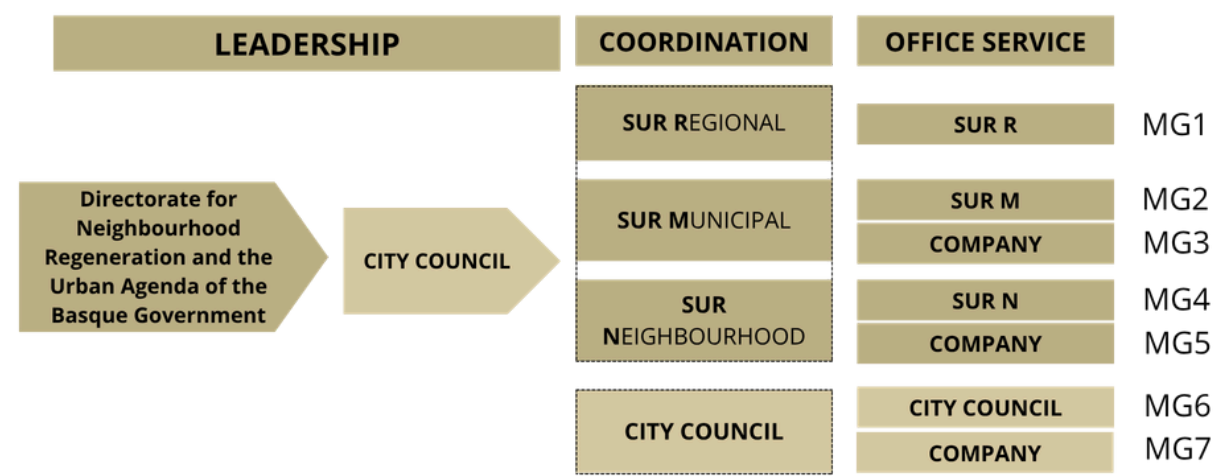
The following bodies are involved in implementing the regeneration processes: the Basque Government, which is responsible for strategic leadership, overall coordination and funding; local councils, which are responsible for implementing and managing the programme in each neighbourhood; coordinating bodies and neighbourhood offices, which are responsible for operational management, technical support and citizen services; and neighbourhood communities and partner organisations.

The structure of each office depends on the local context. **Seven models** have been defined, the most common being one in which the local council leads the programme, while the coordination and management of the office are undertaken by a local specialist body (an Urban Development Agency –SUR in Spanish– or a Local Autonomous Body –OAL in Spanish–).

Starting points

The offices have been set up in neighbourhoods at different stages of the regeneration process: from early-stage context, where the scope of action has not yet been defined, to initiatives driven by the neighbourhood itself, or characterised by a high level of

public co-ownership. The predominant scenario involves neighbourhoods at a medium to high stage of development, with clearly defined areas and buildings and a history of previous work with the community.



The 7 governance models based on the coordination and management of Opengela’s offices. Source: CAVIAR EHU

Three types of interventions

These include major refurbishment of residential buildings, projects in public spaces and facilities, and initiatives driven by other programmes and activities such as employment and training schemes, amongst others. However, the work of ‘opengela’ has been primarily linked to major refurbishment projects for residential buildings, supporting the local community throughout the complex process of building refurbishment.

Multidisciplinary teams

These teams are made up of professionals from a range of disciplines, including technical, administrative and accounting, social work and legal professionals. In most cases, the team consists of one technical professional and one administrative and accounting professional, who handle the management and operational functions of the office, while the social work and legal professionals are involved on an ad hoc basis, depending on the needs of the process.

Areas of activity

Key features:

- Located in areas with high or very high levels of **urban vulnerability**, or in areas designated by the Basque Government as Priority Action Zones with a view to promoting their comprehensive regeneration.
- Homogeneous housing complexes built between **the 1960s and the 1980s**.
- Between 52 and 525 homes, with a predominance of **medium-sized** neighbourhoods (100 and 200 homes).

Scope of building refurbishment

- The number of homes refurbished per area ranges from 40 to 330, with an average of 8 to 12 homes per doorway.
- In socio-economic terms, 23% of the households assisted are in a vulnerable situation, and in some neighbourhoods this proportion rises to as high as 45%.

Systematisation of the network

Opengela is based on a multi-level coordination structure that combines central management and support resources at regional level with a flexible implementation tailored to the capabilities of each local authority. This common model not only promotes the exchange of knowledge and the continuous improvement of the network, but also allows for the incorporation of shared management arrangements in which a single team oversees several offices or areas of activity, thereby optimising resources and strengthening the system's operational capacity.

In addition, the following criteria are established for network scaling:

The implementation of offices in three phases

An initial start-up phase focused on gaining an understanding of the area, building partnerships and defining the intervention strategy; an implementation phase focused

on carrying out the planned projects and initiatives; and a post-intervention phase dedicated to supporting, monitoring and evaluating the results, which may also involve defining new initiatives in the neighbourhood or closing the office once the process is deemed to have been completed.

The basic office set-up

The model is based on a multidisciplinary team comprising technical, administrative and social roles, supplemented where necessary by legal support. The technical role is the central element of the model and is responsible for coordination where there is no specialist organisation capable of performing this function. The workload of each role must be flexible, depending on the area in which they work and the defined phases.

Regional coordination

It is organised around an overarching coordination mechanism led by the Basque Government's Directorate for Neighbourhood Regeneration and the Urban Agenda, which is responsible for monitoring, evaluating, and continuously improving the programme, as well as providing specific support to offices that lack specialist partner organisations. This system is complemented by supra-local legal and social advisory resources and by mechanisms for managing professional resources.



Visit by Denis Itxaso, Basque Government's Regional Minister for Housing and Urban Agenda, and Isabel Rodríguez, Minister for Housing and Urban Agenda, to the Txonta neighbourhood (Eibar). Source: Basque Government



The management of the Opengela programme

The HIROSS4all project had already highlighted that the key to the model's replicability lay in the creation of a regional **management body** to centralise and coordinate all the activities carried out by the offices.

With this same objective in mind, the **Directorate for Neighbourhood Regeneration and Urban Agenda** was established in December 2024 within the Basque Government's Department of Housing and Urban Agenda. The Directorate thus has the mandate and capacity to carry out, amongst others, the following functions:

- To promote, draw up, and implement the necessary instruments and provisions to drive forward urban regeneration.
- To develop strategies aimed at implementing, at a local level, the short-, medium-, and long-term requirements for urban regeneration and intervention in the built heritage, as set out in EU, national and regional regulations and directives.
- To plan and identify areas of urban vulnerability, and to develop and monitor urban regeneration plans promoted or implemented by the department, through public-public or public-private partnerships, within the framework of its own programmes or European programmes.
- To support, advise, and monitor the local technical and management offices included in the Opengela urban regeneration programme.

The Basque Government itself is leading the coordination of the neighbourhood offices to promote the extension of urban regeneration processes across the whole territory.



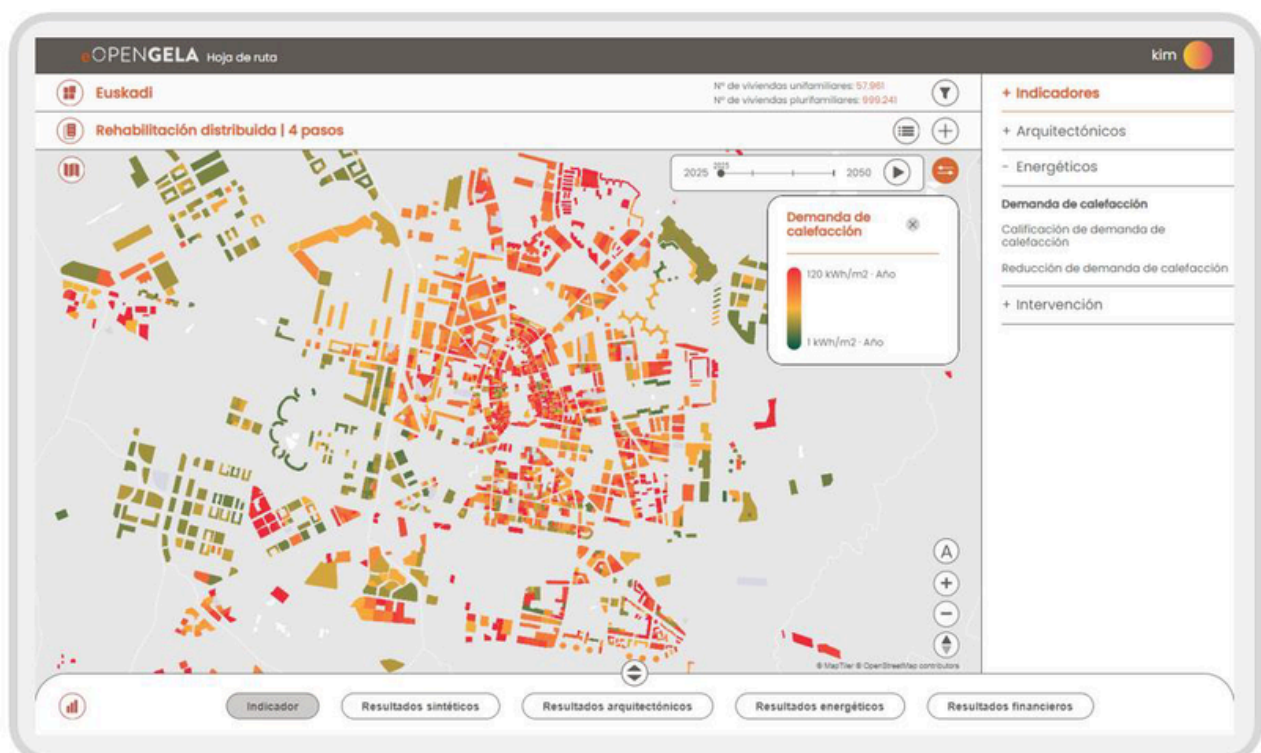
The regional roadmap

The extension of the Opengela model to the regional level requires tools that enable regeneration initiatives to be guided from a **strategic and long-term perspective**. In this

context, the Opengela Roadmap has been created as a tool to support public authorities in planning the decarbonisation of the Basque housing stock and making progress towards the climate targets set for 2050.

The ‘Opengela Roadmap’ tool has been created to prioritise interventions, allocate resources and coordinate actions at a regional level

The tool provides a **comprehensive overview of the building stock in the Basque Country** and helps to identify priorities for action based on territorial, construction, energy and social criteria. As a result, it is possible to analyse different renovation scenarios, assess the potential impact of public policies and define strategies tailored to the needs of each region.



‘Opengela Roadmap’ tool. Source: Ciclica

Its main contribution within the Opengela model is to complement the work of the network of neighbourhood offices with a capacity for **planning at a regional level**. While the offices support members of the public and drive regeneration processes on the ground, the Roadmap provides an overarching vision that enables **interventions to be prioritised, resources to be channelled, and actions to be coordinated** in a coherent manner across the whole of the Basque Country.

Its key strengths include the ability to integrate spatial data into a single analytical environment, the possibility of exploring different scenarios for action, and its usefulness as a decision-making tool. Overall, the Opengela Roadmap is a key element in linking spatial strategy with the local implementation of urban regeneration and renewal policies in the Basque Country.



The regulatory framework developed: legislative initiatives

To ensure that the significant growth in the number of ‘opengelas’ does not stagnate, the definition and approval of **a clear and coherent regulatory framework** is considered a priority, as this would provide the legal foundations for the proper planning, management, and implementation of the Opengela programme.

This legislative framework must include, amongst its objectives, the promotion of measures to improve accessibility, sustainability, and energy efficiency, so as to enable a systematic, coherent, and sustained approach over time. Furthermore, in line with the provisions of the European Energy Performance of Buildings Directive (EPBD) and the work carried out in neighbourhoods, **the local technical and management office should be incorporated into the current regulatory framework as a driving force and cornerstone of urban regeneration** initiatives at neighbourhood level. At the same time, urban regeneration companies and regeneration agents should continue to play a central role and be further strengthened.

2.2. QUANTITATIVE OUTCOMES

2.2.1. Opengela in numbers

+21 new neighbourhood offices

Goal: +10



4,888 people benefited

Goal: 4,800



€3,122 per home cost of the service

Cost of the 'opengela' = 5% of the investment per home

€175.98 million direct investment

Goal: €120 million



€155.68 million in public funds (88%) and €20.30 million in private funds (12%).

25,480 MWh/year energy saving

Goal: 11,407 MWh/year



4,924 tCO₂/year reduction in emissions

Goal: 3,593 tCO₂/year



38

jobs created

Goal: 30

**84 %** take-up rate

Neighbourhood included in the regeneration project

70 events national and European dissemination

6 visits from and to other regions interested in the model

2.2.2. Results from the TorreUrizar living lab

4,789inquiries
answered**2,078**direct mail
communications**21**meetings
held

At the start of the BIRTUOSS project, the objective was set to achieve 80% positive feedback regarding neighbourhood satisfaction with the work carried out by TorreUrizar living lab. A survey was distributed to the entire neighbourhood via direct mail, and face-to-face meetings were held with the chairpersons of each block. Overall, the feedback has been highly positive. As can be seen in the image below, **the overall satisfaction rate stands at 81%.**

Only the indicator relating to opening hours lowers the final score, as local residents always want office staff to be more readily available. Even so, positive ratings (55 %) outnumber negative ones (16%). Conversely, if we disregard that factor and focus on the indicators that specifically mention the quality of the office's service, the satisfaction rate rises to 84% (combining 'positive' and 'very positive' ratings).

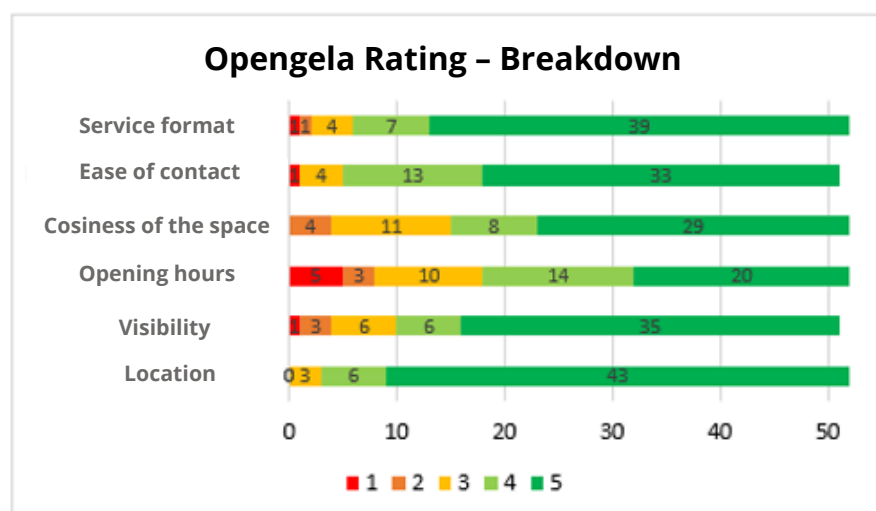
1- How would you rate the Opengela office?

This first question allows local residents to rate, on a scale of 1 to 5, various factors: location, visibility, opening days and hours, how welcoming the space is, ease of contact, and the method of service (by appointment, by telephone, or in person at the office).

	1		2		3		4		5			
	n.º	%	n.º	%	n.º	%	n.º	%	n.º	%	Total	Average of the responses
Location					3	6%	6	12%	43	83%	52	4,769
Visibility	1	2%	3	6%	6	12%	6	12%	35	69%	51	4,39
Opening hours	5	10%	3	6%	10	19%	14	27%	20	38%	52	3,79
Cosiness of the space			4	8%	11	21%	8	15%	29	56%	52	4,19
Ease of contact	1	2%		0%	4	8%	13	25%	33	65%	51	4,51
Service format	1	2%	1	2%	4	8%	7	13%	39	75%	52	4,58
Total	8	3%	11	4%	38	12%	54	17%	199	64%	310	

Satisfaction survey on the service provided by the 'opengela' in TorreUrizar. Source: Bilbao Municipal Housing

We obtain the following breakdown of data:



Satisfaction survey on the service provided by the 'opengela' in TorreUrizar. Source: Bilbao Municipal Housing

LESSONS LEARNED



3.1. FROM A SOCIAL AND PARTICIPATORY PERSPECTIVE

The BIRTUOSS project has enabled a number of **strategic lessons to be drawn regarding the social dimension** of urban regeneration processes in vulnerable contexts.

Firstly, it is clear that these processes cannot be approached solely from a technical or energy-related perspective. Experience has shown that **improving the energy efficiency of buildings must be accompanied by a people-centred approach**, and must also incorporate, across the board, aspects relating to quality of life, accessibility, community cohesion, and social support. This facilitates the genuine participation and involvement of property owners.

One of the key lessons learnt has been the importance of the neighbourhood office model as a tool for mediation and social engagement. The ‘opengelas’ have demonstrated their ability to act as **a trusted intermediary between the citizens, public authorities, and the technical experts** involved in the works. This mediating role helps to **reduce information asymmetries, facilitate understanding of administrative and technical processes, and foster more balanced relationships** between the parties involved.

Furthermore, BIRTUOSS highlights that neighbourhood participation is a critical factor in the success of regeneration processes. Experience shows that community involvement requires ongoing communication strategies, accessible information and personalised support. **Effective neighbourhood participation does not depend solely on organising meetings, but rather on the ability to build trust, address individual circumstances, and adapt channels of interaction to the social and cultural characteristics of the local community.**

One of the factors that often helps to generate interest among homeowners is the prospect of carrying out accessibility works on their homes (lifts) and in the surrounding areas (accessible or passable routes), and the added value that these bring.

For that very reason, it is essential to **recruit professionals with multidisciplinary profiles** to the office. The

combination of technical, legal, administrative, and social skills has proved vital in addressing the complexity of urban regeneration processes.

In particular, **the social aspect**

has taken on a strategic role as a link between the technical requirements of the refurbishment and the actual needs of those affected.

**It is essential to have
professionals with
multidisciplinary
backgrounds in the offices**

The project has also highlighted **the importance of identifying and characterising situations of vulnerability**: the ageing population, households with low labour intensity, single-parent families, migrants, people with disabilities, and victims of gender-based violence all require specific support and assistance mechanisms.

Beyond the social indicators that provide an insight into the ‘overall picture’ or initial situation of the neighbourhood, this approach has reinforced **the need to develop social diagnostic tools** and has highlighted **the value of inter-institutional coordination** as a necessary condition for ensuring comprehensive interventions. Collaboration between social services, the Basque Employment Service (Lanbide), housing, health, education and third-sector organisations present in the neighbourhoods or serving their residents has proved to be a necessary and effective mechanism for improving the capacity to respond to complex situations and promoting social inclusion linked to urban regeneration. Coordination between different protection and inclusion systems enables a comprehensive approach to be taken, addressing and responding to the various factors contributing to people’s vulnerability.

On a methodological level, these lessons have been used to define systems of social and vulnerability indicators for the ongoing evaluation of the process and the impact of the actions on the different groups. These instruments make it possible not only to monitor quantitative aspects linked to participation, support, or accessibility, but also to provide a replicable framework for future actions in other territories.

3.2. FROM A TECHNICAL AND ADMINISTRATIVE PERSPECTIVE

From a technical point of view, this project has shown that having **examples of good practice** and collating the available solutions, both at the building and urban levels, facilitates and improves interventions in the areas where action is taken.

What is more, a tool that has proven particularly useful is **the building passport**, a long-term personalised document that sets out a phased roadmap for the renovation of the property, aimed at improving its energy efficiency and reducing its emissions.

This allows for structured planning of the necessary actions until higher levels of efficiency are achieved. Likewise, from a technical point of view, its implementation provides added value by enabling the progressive receipt of aid until comprehensive renovation, given that the savings generated in each phase can be successively accumulated.

The building passport has been particularly useful, as it sets out a roadmap for the renovation of the property

From an administrative perspective, the **development of action protocols and documentation templates**, as well as the collection of standardised data, has streamlined the management of processes and improved their monitoring. This enables better coordination and evaluation of results in all neighbourhood offices.

Furthermore, the existence of a **coordinating body for the offices** has facilitated the creation of standardised models for more efficient administrative work, enabling greater consistency in procedures and criteria. This coordination fosters the implementation of good practices, the exchange of information, and the ongoing training of staff, having a positive impact on the quality of the service provided by the office. It also enhances project oversight and monitoring of projects, and facilitates the evaluation of results.

3.3. FROM AN ECONOMIC AND FINANCIAL PERSPECTIVE



High execution capacity

The BIRTUOSS project has established a coordinated network of technical management and neighbourhood support offices with a strong capacity to mobilise investments in energy renovation from both public and private sources. The 21 offices created through the project (in addition to the four previously established) have helped stimulate up to **€176 million in investments**, of which €20 million comes from private investment and €17 million from European funds. With a total investment of €8.9 million in the offices themselves, this demonstrates a strong leverage effect and a high capacity to stimulate further investment. It should be noted that private investment remains limited, as the project targets neighbourhoods experiencing socioeconomic vulnerability, where residents have a relatively low capacity to finance renovation works.

Furthermore, throughout the project, new mechanisms have been tested to facilitate property owners' access to alternative sources of finance. Among these, the **Energy Savings Certificates** scheme has been particularly significant. This mechanism enables the **energy savings achieved through investments in energy efficiency improvements to be monetised**. As the party promoting the refurbishment works, the residents are the original owners of the energy savings generated. These savings may be transferred to any of the parties subject to energy savings obligations. The transfer is made in exchange for financial compensation, providing an additional incentive to encourage investment in energy efficiency refurbishment.



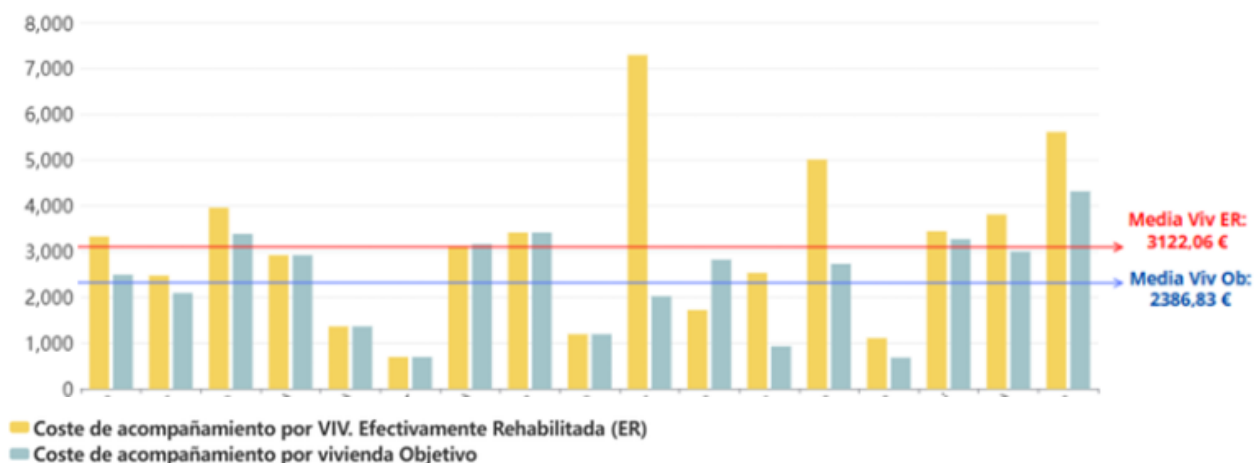
Solar photovoltaic panels installed on the roof of the TorreUrizar residential complex. Source: Bilbao Municipal Housing

Furthermore, as part of the BIRTUOSS project, an **economic analysis** of 17 offices was carried out, enabling a number of conclusions and lessons to be drawn to inform future decision-making by the Basque Government. On the one hand, the analysis shows that the Opengela model achieved a **programme uptake rate of 84.01%**, measured as the proportion of target dwellings that were ultimately refurbished. This demonstrates a strong capacity to translate refurbishment targets into completed projects.

On the other hand, the data collected make it possible to establish benchmark values for future planning. **The average cost of the services provided by the office amounts to €3,122 per refurbished dwelling and €2,387 per target dwelling.**

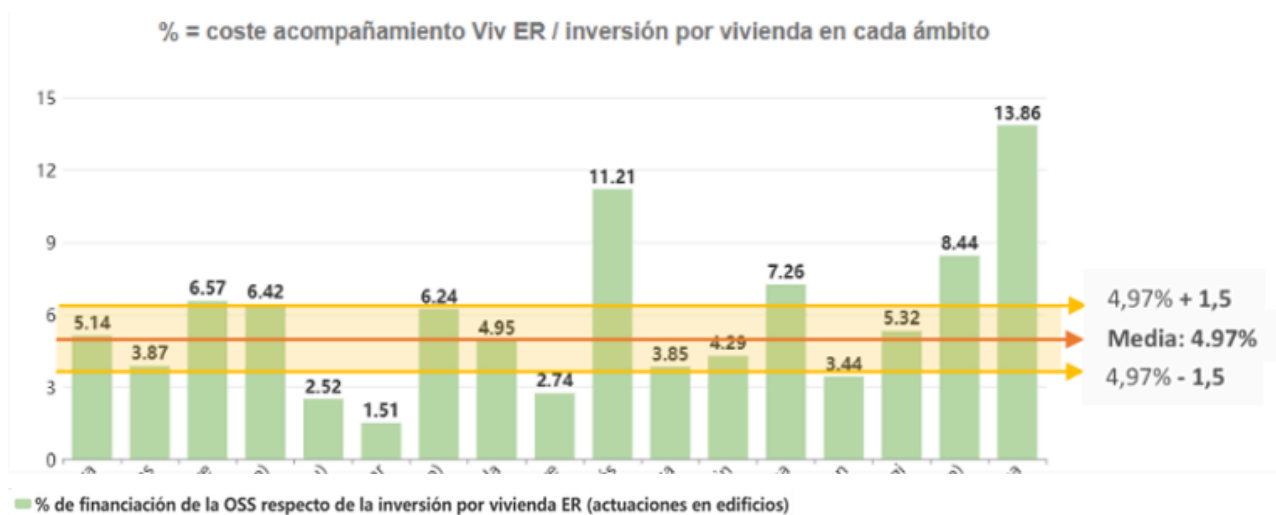
A high participation rate was achieved, with 84.01% of residents in the target neighbourhoods joining the programme

The cost of the ‘opengela’ represents approximately **5% of the investment** per refurbished dwelling and 3.8% of the total investment across the intervention area, confirming that the support provided constitutes a relatively small investment compared with the volume of funding it helps to mobilise.



The average cost of the services provided by the neighbourhood office amounts to €3,122 per refurbished dwelling.

Source: GNE Finance



The cost of the 'opengela' represents approximately 5% of the investment made in each refurbished dwelling.
Source: GNE Finance

The differences observed between the various offices demonstrate that their economic performance depends on factors such as the level of socioeconomic vulnerability in the area, the urban morphology, the size of the intervention area, the number of target dwellings, the type of refurbishment works carried out, and the office's organisational model. This highlights the need to **tailor budget planning and resource allocation to the specific characteristics of each neighbourhood**, rather than adopting a one-size-fits-all approach.

Although **there is no single operating model**, the study has identified a group of offices with particularly strong performance and established benchmark values to support future planning. In particular, an indicative cost of around €3,000 per refurbished dwelling and a service cost equivalent to approximately 5% of the investment mobilised provide useful reference points for the design, budgeting, and scaling up of new neighbourhood offices in the Basque Country and other regions.

Although there is no single operating model, the average cost of the office is close to €3,000 per refurbished dwelling

3.4. FROM THE PERSPECTIVE OF GOVERNANCE AND REPLICABILITY

Drawing on the experience gained through the BIRTUOSS project, it can be concluded that a number of key enabling factors are essential for the successful deployment of the model:



Management entity

The consolidation of a territorial network of neighbourhood offices requires not only an appropriate organisational model, but also **strong institutional backing** to ensure its long-term sustainability. In this respect, having a managing organisation with legislative and financial capacity, such as the **Directorate for Neighbourhood Regeneration and the Urban Agenda of the Basque Government**, is essential. Its commitment to expanding the model, together with its ability to promote the necessary regulatory measures and provide the associated financial resources, ensures that the intervention can be delivered in a systematic, long-term, and context-sensitive manner.



Multi-level governance

At the same time, local organisations specialising in urban regeneration (such as SURs and OALs) are a key element in the governance and replicability of the model. They provide technical expertise, experience in managing complex processes, and the capacity to coordinate effectively among the various public authorities and stakeholders involved.

In general, municipalities with more limited operational capacity require specific support mechanisms and technical assistance, as the simultaneous lack of in-house resources and specialised organisations makes it more difficult to access and deliver complex urban regeneration programmes.

Property management companies are strategic partners in facilitating access to and communication with homeowners' associations, as they hold relevant information, have well-established communication channels, and can help streamline the documentary and administrative procedures involved in refurbishment projects.

Finally, **social cohesion and the presence of active community networks (such as residents' associations)** are key factors in the success of urban regeneration processes. They act as catalysts for citizen participation and foster a shared sense of ownership of the transformations taking place within the neighbourhood.



The role of municipalities

One of the main lessons learned is that **municipalities must take a leading role** in driving the transformation of their neighbourhoods. Their close relationship with local communities and their direct knowledge of the local context place them in a uniquely strong position to lead urban regeneration initiatives.

The experience demonstrates that urban regeneration processes achieve better outcomes when they are led at the local level. **The political and institutional commitment of municipalities is crucial** for mobilising resources, setting priorities, fostering collaboration, and ensuring the successful delivery of regeneration initiatives.

As demonstrated throughout the BIRTUOSS project, municipal leadership should be supported by a collaborative network comprising all the key actors identified above: the technical management and neighbourhood offices, specialist organisations operating at local or sub-regional level, and the Directorate for Neighbourhood Regeneration and the Urban Agenda of the Basque Government. Together, these actors provide technical expertise, resources and specialised knowledge that complement the work of municipalities and strengthen their capacity to plan and deliver complex urban transformation processes.

RECOMMENDATIONS



4.1. FOR THE LOCAL AND REGIONAL LEVELS



Regulatory framework

It is necessary to establish an appropriate regulatory framework to **consolidate the methodology developed** to date for integrated urban regeneration, delivered through dedicated technical management and neighbourhood offices established within the target communities. To this end, it is essential that the operation of these offices and the services they provide be regulated at regional level. This will ensure consistency in the implementation of future initiatives and support the coherent roll-out of the model across different territories.



Securing long-term funding

In addition, it is essential to secure a dedicated funding stream to support the **coordinated and simultaneous regeneration of selected neighbourhoods** in a systematic manner. This would provide a stable financial framework for consolidating both the network of neighbourhood offices and the wider ecosystem of organisations involved in delivering integrated urban regeneration.

Implementation of neighbourhood offices

- **Introduce a preliminary engagement and diagnostic phase** before the start of interventions, particularly in municipalities that do not have specialised technical structures or previously established urban regeneration strategies.

- **Clearly distinguish between the start-up, implementation and post-intervention phases**, assigning specific objectives, resources and tools to each in order to ensure the continuity and effectiveness of the urban regeneration process.
- **Integrate a post-intervention monitoring and support phase** to assess outcomes, consolidate the improvements achieved, and identify any need for further action within the neighbourhood.

Neighbourhood office team

- **Structure the neighbourhood offices around a core multidisciplinary team** comprising technical, administrative and financial, and social professionals, complemented by specialist legal advice where required.
- **Adapt staffing levels of each team to the characteristics of the intervention area**, taking into account factors such as the size of the neighbourhood, the complexity of the building stock, and the level of socioeconomic vulnerability.
- **Promote multidisciplinary professional profiles with cross-cutting skills**, capable of working collaboratively and addressing the different dimensions of urban regeneration processes in an integrated manner.
- **Ensure the stability and continuity of the office teams throughout the entire intervention cycle**, fostering trust with local communities and enabling the accumulation of knowledge about the neighbourhood.

Governance structure and territorial coordination

- **Develop a multi-level governance structure** that combines strategic coordination at regional level with management arrangements tailored to the capacities and resources of each municipality.
- **Make use of and integrate local organisations specialising in urban regeneration wherever they exist**, assigning them coordination and technical support roles to strengthen the operational capacity of the neighbourhood offices.

- **Establish specific support mechanisms for municipalities with more limited technical and administrative capacity**, ensuring equitable access to the model across the whole territory.
- **Establish supra-municipal legal and social advisory services** capable of addressing specialised needs shared across the entire network.
- **Promote specialised training for professionals across the sector** to ensure the availability of skilled personnel who can reinforce the work of neighbourhood offices during periods of high demand and provide cover for temporary staffing needs.
- **Promote accreditation schemes for companies specialising in comprehensive urban regeneration**, ensuring consistent quality standards and facilitating the procurement of specialist services.
- **Promote shared management models across neighbourhood offices and intervention areas** to optimise resources, improve responsiveness during periods of peak demand, and facilitate the transfer of knowledge between different projects.
- **Consolidate the network as a collective learning system** that promotes the continuous exchange of experiences, methodologies, and solutions between offices, progressively improving the effectiveness and replicability of the model.

Territorial scaling-up of the model

- **Combine the standardisation of the model's essential elements with the flexibility required to adapt to local specificities**, ensuring both territorial coherence and the capacity to respond to different contexts.
- **Promote the scaling-up of the network through permanent structures for coordination, technical support, and shared learning**, capable of ensuring the sustainability of the model and its long-term implementation across different territorial contexts.

4.2. FOR THE NATIONAL LEVEL

The following measures are recommended:



Establishing a nationwide network of neighbourhood offices

Member States should ensure that neighbourhood offices or OSS are available to citizens (Article 18 of the EPBD). Currently, there are multiple OSS initiatives operating at different scales (neighbourhood, municipal, sub-regional, or regional level) and offering a range of services (urban regeneration, building refurbishment, self-consumption, tackling energy poverty, etc.). **The Opengela experience demonstrates that a network-based approach enables resources to be optimised and provides citizens with a single point of contact, while at the same time accommodating a wide variety of situations and local contexts.**

- **Service portfolio.** Offices participating in the network should provide a set of minimum services, together with additional advanced services.
- **Professional profiles.** The network should contribute to the professionalisation of staff (social workers, architects, administrative professionals, legal experts, etc.) and promote the development of new professional roles (such as the refurbishment facilitator).
- **Governance.** The network should be able to integrate and coordinate different office initiatives and networks promoted by various public administrations, while respecting their respective areas of action and objectives.
- **Resources and support.** The network should provide resources such as training courses, digital tools, protocols, and communication materials.



Establish a stable regulatory framework for neighbourhood offices and refurbishment facilitators

The definition of the OSS has not yet been transposed into the Spanish legal framework, despite being a key element of the Energy Efficiency Directive (EED) and EPBD. Likewise, the ‘refurbishment facilitator’ role does not yet have a stable definition beyond the various

subsidy schemes such as the [Royal Decree 853/2021](#) under Spain's Recovery, Transformation and Resilience Plan (PRTR) and the [Royal Decree 326/2026](#) under the State Housing Plan (PEV). The professionalisation of the sector requires the establishment of a stable regulatory framework that is independent of successive funding calls.

- **Include the ‘refurbishment facilitator’ among the recognised building sector stakeholders.** The Building Regulation Act (*Ley de Ordenación de la Edificación* in Spanish) establishes the roles and responsibilities of the parties involved in new-build construction processes, but it is not adapted to the specific requirements of refurbishment.
- **Develop regulations for neighbourhood offices.** Regional governments should develop regulations governing the operation of neighbourhood offices and the services they provide, aligned with a common definition established at national level.



Establish a national building renovation passport system

Renovation passports are a tool for both homeowners and public administrations, as they enable scenario-based planning. **Opengela uses an automated passport system that allows the creation of different scenarios and the identification of priority neighbourhoods through the large-scale modelling of all buildings across the Basque Country.** To comply with the requirements of the EPBD (Article 12) and facilitate the implementation of the Spanish National Building Renovation Plan (PNRE), it is essential to have a centralised building database capable of providing the information needed to generate draft renovation passports.



Strengthen multi-level planning and governance to coordinate the renewal sector

Different administrations must work together to facilitate the rehabilitation of buildings. The PNRE is the reference document and should include cooperation and governance mechanisms.

- **Promote the development of regional and local building renovation plans.** Housing and building renovation policies are applied at the local and regional levels, so plans in these areas, aligned with the PNRE, are necessary.

- **Coordinate services and responsibilities across public administrations.** The work carried out by each level of administration should be coherent, clearly defining the services to be provided by neighbourhood offices, municipalities, provincial authorities, regional governments, and the State.



Image of the different neighbourhood offices ('Opengelas') deployed across the Basque Country. Source: Gabineteseis

4.3. FOR THE EUROPEAN LEVEL

Based on the experience gained over recent years through Opengela and the HIROSS⁴all and BIRTUOSS projects, it is proposed to strengthen the role of neighbourhood offices as a key instrument for the energy transition and building renovation, ensuring the coherent implementation of European legislation. The need to **consolidate neighbourhood-scale models**, embedded within **stable structures** and supported by **adequate funding** under the next Multiannual Financial Framework (MFF), is highlighted. Furthermore, support is requested for European platforms that facilitate knowledge exchange, capacity building, and the dissemination of good practices. Specifically, the following measures are recommended:



Ensure a coherent implementation of neighbourhood offices within the framework of the EED and EPBD

Support the coherent implementation of Article 22 of the EED and Article 18 of the EPBD, **avoiding parallel advisory structures and promoting integrated one-stop-shop models** that address energy efficiency, building renovation, financing, social support and citizen engagement through a single point of access.



Recognise neighbourhood offices as permanent support infrastructure

Promote **neighbourhood offices as permanent support infrastructure** for the energy transition and building renovation across the EU, organised as a network of local offices. This model supports the shift towards neighbourhood-scale renovation and regeneration strategies, moving beyond purely building-by-building interventions and enabling a more integrated and coordinated approach.

Organising support services at neighbourhood level improves citizens' access, increases the participation of vulnerable households, and enables a more effective integration of the technical, financial, and social dimensions within building renovation processes.

Member States should be encouraged to move beyond temporary, project-based structures and integrate these neighbourhood offices into stable governance frameworks, as part of the long-term implementation of the EPBD, the EED, and the broader objectives of the European Green Deal.



Prioritise neighbourhood offices in the next Multiannual Financial Framework (MFF)

Accelerating the renovation of privately owned buildings will be essential for the EU to achieve its climate neutrality objectives. The next **Multiannual Financial Framework** (MFF) aims to allocate 35% of total expenditure to climate and environmental objectives (compared with 30% currently), representing **a major opportunity to drive structural change** in the building sector, including at neighbourhood level.

Particular attention should be paid to enabling regions and local authorities to develop neighbourhood office models, ensuring adequate financial resources for their operation, territorial coverage, and long-term sustainability.

In this context, it is recommended that the European Competitiveness Fund explicitly include the development of market facilitation mechanisms, including one-stop-shop models, within the action areas dedicated to decarbonisation and the energy transition.



Support the long-term continuity of European platforms that facilitate the dissemination and exchange of good practices in urban regeneration

The successful replication of urban regeneration models depends not only on funding and technical solutions, but also on access to practical knowledge, peer-learning opportunities, and continuous exchange between professionals, public authorities and local stakeholders.

Continued support for European platforms and communities such as BUILD UP and EU Peers is essential to accelerate knowledge transfer, strengthen professional capacities, and facilitate the adoption of successful approaches across European regions.

OPENGELA IN IMAGES



ÁLAVA - ARABA

GOIKOLARRA (Amurrio)

In Goikolarra, works have been carried out across 12 doorways and 72 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. In addition, the central square has been regenerated following principles of renaturalisation, accessibility and climate resilience.



Before



After



ZARAMAGA (Vitoria -Gazteiz)

In Zaramaga, works have been carried out across 22 doorways and 332 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. In addition, the neighbourhood has been provided with two new facilities: a socio-cultural centre and a day care centre. In the public realm, regeneration works have been undertaken throughout the neighbourhood, including a new cycle lane, improvements to green infrastructure and electric vehicle charging points.



Before



After



BISCAY

ARAMOTZ (Durango)

In Aramotz, works have been carried out across 16 doorways and 96 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. In addition, the Larrinagatxu stream has been channelled using hybrid solutions combining the restoration of riparian vegetation and water retention measures, alongside the design of public green spaces to encourage connectivity within the neighbourhood. Sustainable urban drainage systems (SUDS) and rainwater management solutions have also been incorporated to improve flood control.



Before



After



AURORA VILDOSOLA (Santurtzi)

In Aurora Vildosola (Santurtzi), works have been carried out across 13 doorways and 104 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. All lifts have been installed inside the buildings, with the stair cores relocated to the exterior. The façades have been upgraded with thermal insulation, while recreating the original mouldings and distinctive architectural features. In addition, the surrounding public realm has been adapted through the installation of ramps, ensuring accessibility for all dwellings.



Before



After



LANDATAS Y MARÍA DOLORES MADARIA (Orduña)

In Landatas and Maria Dolores Madaria (Orduña), works have been carried out across 10 doorways and 130 home, improving the energy efficiency of the building envelope and enhancing universal accessibility in eight of the buildings that previously lacked lifts. In addition, minor public realm improvements have been undertaken in the two neighbourhoods, including the undergrounding of overhead utility lines, upgrades to public lighting, accessibility improvements, the reorganisation of specific parking areas, and the introduction of new urban furniture elements.

LANDATAS



Before



After



MARÍA DOLORES MADARIA



Before



After



OTXARKOAGA (Bilbao)

In Otxarkoaga (Bilbao), works have been carried out across 17 doorways and 240 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. A comprehensive upgrade of the buildings' thermal envelope has been undertaken through the installation of thermal insulation and the replacement of outdated window frames. In addition, balconies have been added to two of the blocks, improving the liveability and comfort of the dwellings. In the public realm, the necessary regeneration works have been carried out to ensure universal accessibility to the upgraded building entrances.



Before



After



SANTUTXU (Bilbao)

In Párroco Unceta (Santutxu), works have been carried out across 13 doorways and 135 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. A comprehensive upgrade of the buildings' thermal envelope has been undertaken through the installation of ETICS using rock wool, while recreating the original façade mouldings and distinctive features. The works have also included the replacement of outdated window frames and the installation of insulation in the roof and ground floor. In addition, the existing staircases have been demolished and rebuilt, and part of the pavement providing access to the building entrances has been occupied to allow the installation of lifts across all 13 doorways.



Before



After



TRAPAGARAN

In Trapagaran, works have been carried out across 6 doorways and 40 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. In addition, 15 detached houses have undergone improvements to their thermal envelope and building systems, including the installation of aerothermal systems and photovoltaic installations.

In the urban environment, accessibility improvements have been implemented through the construction of walkways and lifts that facilitate vertical mobility by overcoming existing level differences.



Before

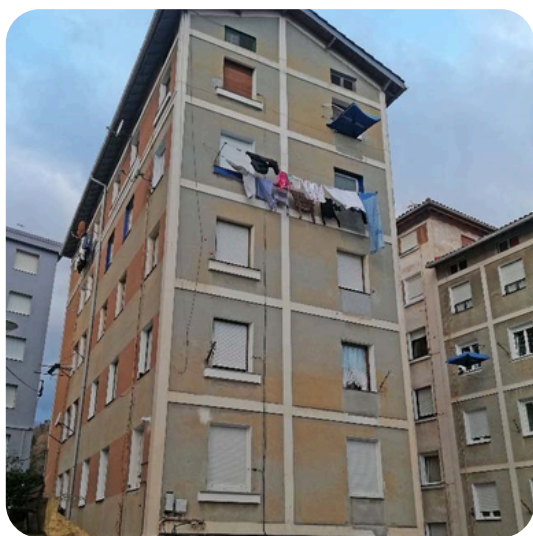


After



TXIBITXIAGA & IPARRAGIRRE (Bermeo)

In Txibitxiaga and Iparragirre, works have been carried out across 7 doorways and 76 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. In addition, the neighbourhood's public realm has been upgraded to address accessibility issues. The works have included new road surfacing, the creation of accessible routes, improvements to urban furniture, and the installation of a public lift and a new car park equipped with electric vehicle charging points.



Before



After



URETAMENDI BETOLAZA (Bilbao)

In the neighbourhood of Uretamendi Betolaza, in Bilbao, a technical management and neighbourhood office has been established following the developed model. In its initial phase, the office aims to carry out a socioeconomic, building stock, public space and facilities assessment of the area, as well as to define an action plan for the comprehensive regeneration of the neighbourhood.



Before

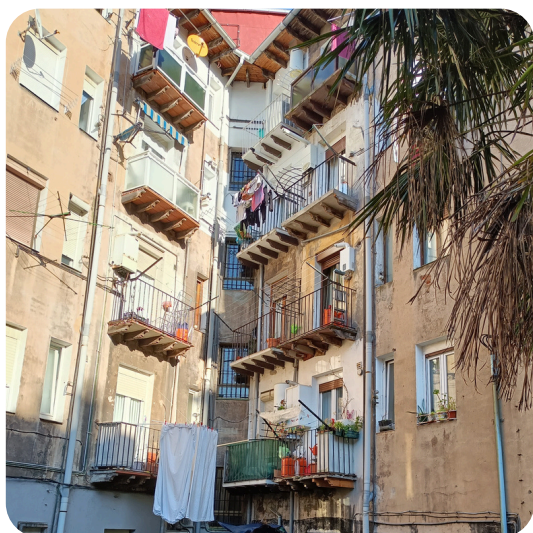


After

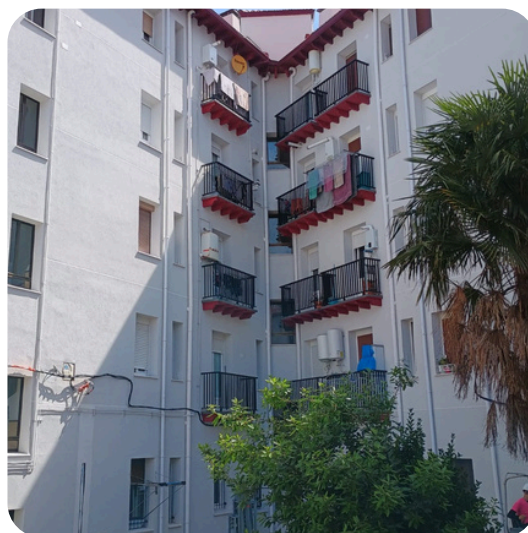


VISTA ALEGRE (Sestao)

In the Vista Alegre housing complex, in Sestao, works have been carried out across 11 doorways and 93 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility.



Before



After



GIPUZKOA

BASAUNDI BAILARA (Lasarte-Oria)

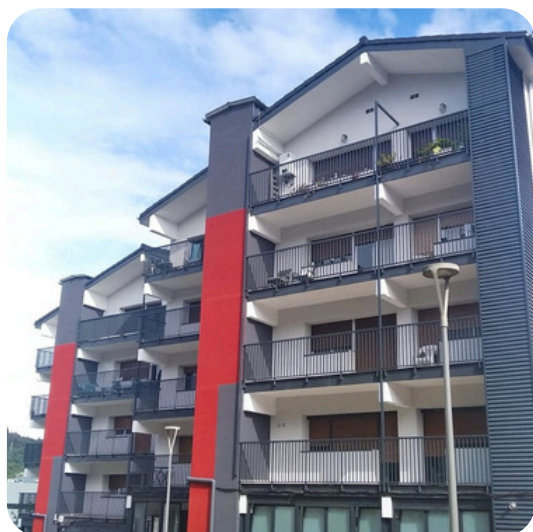
In Basaundi Bailara, works have been carried out across 12 doorways and 119 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. Given the configuration of the buildings, the lifts have been installed externally, opposite the building entrances and stairwells, with direct access to the balconies of the upper-floor dwellings.



Before



After



EZOZIBIDEA (Soraluze)

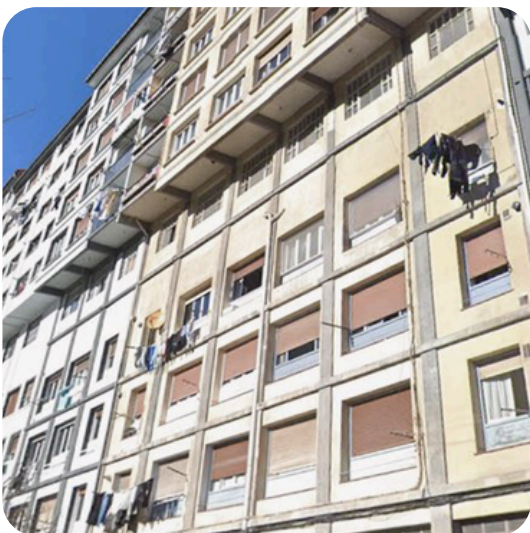
In Soraluze (Ezozibidea), works have been carried out across 5 doorways and 72 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. Lifts have been installed in all the buildings involved, while energy performance has been improved through thermal insulation of the building envelope. The works have also enhanced the dwellings' liveability by providing each home with a terrace at the entrance. In addition, the street has been regenerated to resolve water infiltration and damp issues and to ensure that all doorways are fully accessible. A former industrial site has also been transformed into a covered, multi-purpose public space for community use, addressing the shortage of open public spaces within the neighbourhood.



Before



After



OLASOGAIN (Elgoibar)

In Olasogain (Elgoibar), a comprehensive refurbishment of 7 doorways and 56 homes has been undertaken to improve both accessibility and energy efficiency. Lifts have been installed in all the buildings involved, while energy performance has been enhanced through the insulation of the entire building envelope. The works have also improved the dwellings' liveability by providing each home with a 1.5-metre-deep terrace. In addition, the surrounding public realm has been upgraded to ensure accessibility and accommodate the installation of the lifts, while overhead utility infrastructure has been placed underground.



Before



After



SANTA TERESA - DONEZTEBE (Arrasate)

In Santa Teresa-Donoztebe (Arrasate), works have been carried out across 9 doorways and 91 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility. As part of the public realm regeneration, works have focused on improving accessibility throughout the neighbourhood, including the construction of three public lifts to ensure universal access.



Before



After



TXONTA (Eibar)

In Txonta (Eibar), works have been carried out across 14 doorways and 171 homes, improving the energy efficiency of the building envelope and enhancing universal accessibility.



Before



After





 <https://opengela.eus/birtuoss>

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