

Chapter 2

Social and Economic Management of Sustainable Neighborhoods Regeneration Projects

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Abstract The aim of this paper will be to analyze how social and economic management affects on sustainable neighborhood regeneration projects. Specifically, will go in depth of processes of social and economic management in Spanish neighbourhood regeneration processes, where environmental and social benefits are the main goal of the intervention, but finance is, nowadays, an obstacle. Therefore, this study of real cases will offer a view on which are the environmental objectives, how these projects are funded in Spain and what is the role of neighbors in the process. On the other hand, will help to identify different possibilities of funding to get this type of projects through successfully. A mapping of significant existing projects will be necessary to reach the main objective of the research, which will produce unpublished documentation, useful for future research on this matter, identifying cases of success and failures.

1 Introduction

1.1 *Evolution of Intervention Practice. Last Experiences of Urban Regeneration in Spain*

During the years of economic prosperity, the public administration promoted a wide range of experiences of urban regeneration. If we had to do a quick typing, we could point out some cases and kinds of intervention as an example exposure.

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1.2 The Last Generation of Interventions in Historic Centers

Following the conservationist success of the plans for the protection of historic centers during the 1980s and 1990s, the proposals have pointed in recent years to combine the tourist and commercial capacity of their heritage by restoring these urban spaces, which lost vitality, both functional and demographic.

In Santiago de Compostela case of study (MAP 1) there are programs to link public housing to public rent with the refurbishment of buildings or the implementation of “green strategies” to improve urban metabolism of these tissues, with new points of view on the use of water, naturalized spaces and energy.

In Lavapiés, Madrid (MAP 2), public investment has focused on the re-qualification of public spaces and facilities as strategy for integrating the cultural diversity of a neighborhood that has 42% of foreign immigrant population belonging to 113 different places of Origin. Without abandoning the rehabilitation of housing, the investment in equipment of metropolitan rank has not meant the deployment of a mass gentrification process and nevertheless has allowed to developing a way of coexistence.

Similar experiences, adjusted to the local peculiarities, have been developed in many Spanish cities, among which we could highlight the rehabilitation of the Casc Antic and the discussed renovation operations in the Raval of Barcelona (MAP 3), the performances in the squares of the Historic center of Seville (MAP 4) and the recovery of plots as squares, in a remarkable performance for the recovery of the center of Zaragoza (MAP 5), to highlight some examples (Fig. 1).

1.3 Retrofitting Developmentalism Peripheral Neighborhoods of the Twentieth Century

Entering into use of urban regeneration peripheral neighborhoods, has marked the way to follow on which will be the activity in the years to come.

Zaragoza has been one of the pioneer cities to consider the set of neighborhoods built since the 1940s in a massive way, with typologies mostly of exempt dwelling blocks from collective housing.

Improvements in energy efficiency of buildings, have begun to incorporate as a fundamental part of the menu of actions, in these rehabilitations as update of housing.

Along the same lines, San Cristóbal de los Angeles neighborhood, in Madrid, has begun to experiment with bioclimatic restorations in some of its buildings. Another of the outstanding experiences of this example, is the organization of a Citizen Action Plan as a participation mechanism linked to the regeneration of the neighborhood, although the expectations of this process have not been satisfactorily fulfilled until its last objectives.

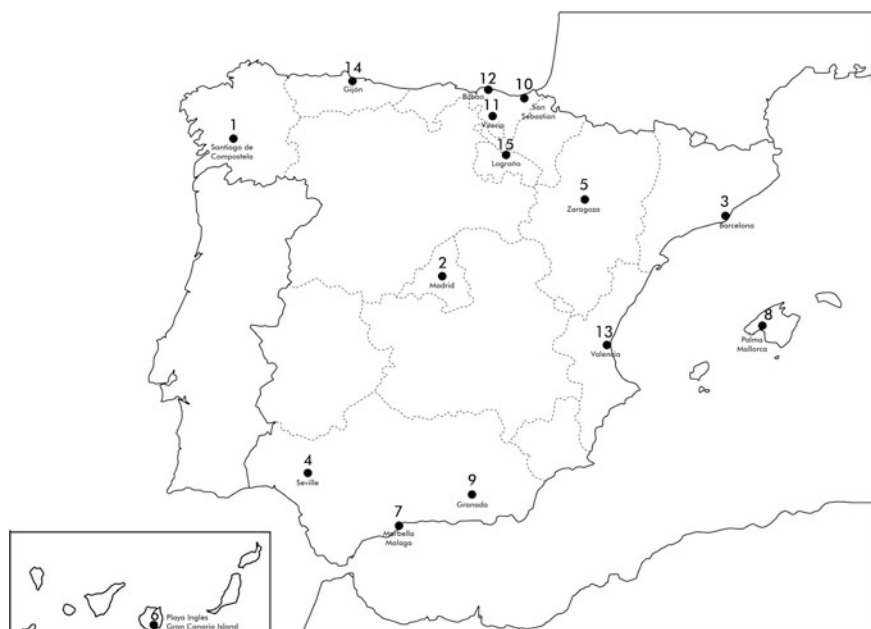


Fig. 1 Map of main urban regeneration actions in Spain

1.4 Addressing Social Exclusion from Urban Regeneration

These attempts to satisfy social demands in the processes of urban regeneration have been more successful in the case of the La Mina neighborhood in Barcelona. Problems of social exclusion of gypsy origin population in the neighborhood have been considered central in the process.

The renovation and physical reorganization of the neighborhood is only a part of the actions, with the most important investment item being the social policy package (15%) together with the re-qualification of public facilities and facilities (25% among two).

The axis of the urbanistic proposal transformation, resides in the construction of an urban rack in the middle of the neighborhood, as a new central space, a backbone that connects new buildings and existing ones. A place of relationship for new civic, social, economic and cultural activities.

With these elements as a starting point, actions such as the incorporation of new housing—both protection and free market- to the neighborhood, as well as the implementation of a University of Barcelona site, seeking to increase social diversity.

1.5 *Taking Action in Urban Tourist Tissues*

In recent years there has been a need to retrofit the tourist space. With lots of secondary residences, many of them with pathologies appeared because of the time elapsed since its construction and its lack of adaptation to current tourism and residential quality standards. These “seasonal neighborhoods” are numerous in the Mediterranean area and in the Canary Islands, and it is here that public-private consortia have been set up to regenerate some representative beaches Playa del Inglés on Gran Canaria Island (MAP 6), the beaches of Marbella and Málaga (MAP 7) or Playa de Palma in Mallorca (MAP 8).

This last one is the one that has managed to finalize a regeneration project in which the novelties go through the search for a metabolism of “Carbon zero” and the fixation of the resident population throughout the year in the neighborhood.

1.6 *Strategic and Sectorial Regenerations*

These kind of actions are the ones that have proliferated the most over the last 20 years in Spanish cities. There are different actions, and to mention some of them, we can point out several referent examples:

- **Sustainable mobility and regeneration of public space actions.**

The first sustainable mobility plans had the cities of Granada (MAP 9) and San Sebastián (MAP 10) as pioneering scenarios. With the generalization of public aid, this type of plans has proliferated in most cities with over 50,000 inhabitants. In recent years the use of tram and bicycle have been used as spur to deeper regeneration processes, like Vitoria (MAP 11), Parla in Madrid or Seville.

- **Recovery actions of maritime fronts and river bank spaces in cities.**

After the Olympic experience in Barcelona and the Ría de Bilbao (MAP 12) with the Guggenheim Museum as a star, many cities have reorganized their port area looking out for an exit to the sea for the city, which previous infrastructures denied.

The result is the recovery of an urban beach space and regeneration of the traditional neighborhoods linked to the ports in cities such as Valencia (MAP 13), Málaga, Gijón (MAP 14) and many others.

In an analogous sense, the recovery of urban contact with rivers has led to operations like Zaragoza Expo or Madrid-Rio linear park, which is related to a previous burial of an urban motorway and the growth prospect of 20,000 homes to be regenerated in the neighborhoods in contact with the linear park in Madrid.

- **Actions to regenerate urban natural spaces.**

In these years, a deepening treatment of urban green areas has been pursued in order to increase the diversity of their biomass, their operational role in the urban metabolism and to convert them into areas of real contact with nature.

Periurban, riverbeds and banks has been widespread in recent years. Perhaps the most successful example is the green ring of Vitoria, which main strategy was recovering a natural space of high ecological value right next to the city, such as the lagoons of Salburúa.

- **Reinforcement actions or generation of urban centrality.**

These types of operations have been very numerous. Many of them have been carried out over old industrial or railway installations or on military spaces that have left the city. Examples like Prolongación de la Castellana operations in Madrid or the establishment of Ave stations in cities such as Logroño (MAP 15), Valencia, etc.

An interesting case, the 22@ neighborhood in Barcelona, because it incorporates in an obsolete industrial tissue an advanced tertiary space, to accommodate economic activities linked to both business and university innovation, maintaining more than 4000 pre-existing homes; All incorporating criteria of sustainability that have allowed to reformulate the patterns of mobility of the zone and the use of the energy.

2 Urban Regeneration Model: Environmental, Social and Economic Aspects. The Specific Case of Madrid

For the case of urban regeneration in Spain, speaking of an intervention instrument is somehow elusive. There are no one, but several and clearly little articulated among them: urban planning, sectoral policies of equipment or public space, laws and technical standards that affect the built and its property, etc. This will be the scenario without entering into social care from minority integration policies and gender policies, resisting against unemployment, youth, or care for dependency, among others.

Instruments that intervene in urban regeneration can be resumed pointing out three columns: the first one, formed by financing rehabilitation policies and social housing, understood as a redistributive mechanism.

Among them are Rehabilitation Integrated Areas (ARIs), urban spaces delimited with operational criteria and where public aid to the private rehabilitation of housing have more intensity than in other areas of the city. The last column is made up of various legislation, the instruments of which are not connected to one another, but which affect rehabilitation processes, such as horizontal property law, historical heritage law, Leasing laws, etc. These three columns should be completed with all kind of sectoral urban policies that affect, in a subsidiary way, the planning and intervention in regenerated neighborhoods, such as mobility policies, urban sustainability, specific social policies or regulating labour market, etc. Almost always external factors to neighborhood processes itself. However, we can say that there is

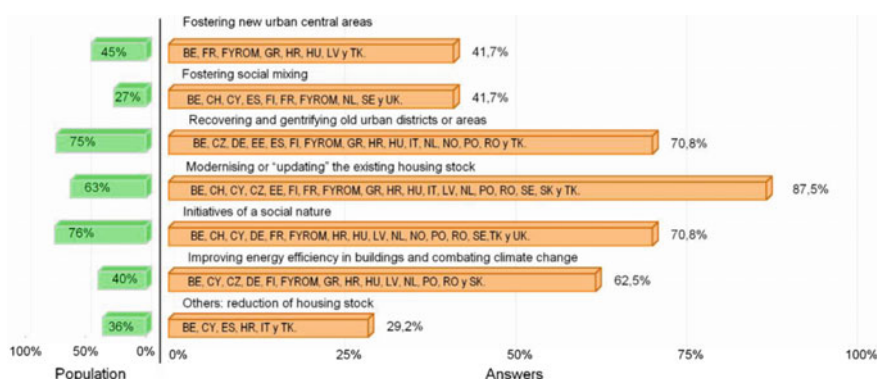


Fig. 2 In your country, does urban regeneration correspond to a specific policy or is it associated with or an integral part of other policies? (Alvarez Mora et al. 2010)

a conceptual model, theoretical, but emerged and fed from institutional practice, which guides how things should be done and understood as a set of knowledge and attitudes shared by agents involved in the processes. It is a model that we have commissioned the regeneration of our neighborhoods culturally and that has a vocation of integral action.

As a conclusion: in this model of action, the integral part is what it considers to act on the whole of the urban structure and the citizen as the actions beneficiary, almost all of a physical nature, because they improve their incorporation into society as a whole or, at least, allows to keep its share capital. To this end, the actions focus on four pillars: habitability in housing and in building, improving or eliminating por or substandard housing, but also combating energy poverty or incorporating vertical accessibility of elevators as something that can not be waived.

The second pillar is access to equipment and other urban services.

The third is improvement of collective meeting spaces to strengthen social capital and, finally, promotion of local economic activities.

It is evident that the practice does not accompany the model in Alfonso Álvarez Mora and Fernando Roch work (Álvarez et al. 2010), on European urban regeneration, where the results of a survey of technicians belonging to public administrations in EU countries are given. In Spain, regenerative activity is not associated with either social or environmental policies, but with patrimonial protection (Fig. 2).

For this purpose, the discussion is to see if the processes of urban regeneration in Madrid have considered these premises by which social cohesion is shed.

2.1 Coincidences and Instruments in a Rather Diffuse Model in the Situation of Madrid. ARIs—Integration Rehabilitation Areas

In line with the Spanish and European situation, in Madrid there has not been an explicit and unified instrument, either legal or technical, covering all aspects of interventions, i.e. their integrality of a deep meaning.

It is true that, on the positive side of the balance, the first actions in rehabilitation areas are able to agree on the three levels of administration, and even considering financing social programs together with actions on buildings and public space, including matching practices subsidy with those of urban planning.

RD 2329/83 of July 28, not only establishes a general framework for collaboration between administrations, matching the state funding to the municipal and the financing of the private rehabilitation of buildings, but for the first time are targeted solutions within of a global performance (EMV 1999). With this decree the areas of Integrated Rehabilitation are defined for the first time. The dependence of the determinations of urban planning for its application is striking, a condition that does not include the rest of the ARI formulations that have been developed by the following decrees, both state and regional. Thus, for the ARI declaration, it was established that: (a) that the area is affected by urban planning that contains and develops criteria for protection, conservation and integrated rehabilitation of the same. (b) In the absence of such urban planning, the Directorate General of Territorial Action and Urbanism may collaborate for the drafting of the same, without prejudice to the legally established powers for its processing and approval. (c) Rehabilitation studies that, in accordance with urban planning criteria, contain information on the area, analyze their conditions and formulate proposals for action.

Other legislation that affect the rehabilitation activity are Law 2/2011, of March 4, on Sustainable Economy; The measures to promote rehabilitation activity contained in Royal Decree-Law 8/2011, of 1 July, on measures to support mortgage debtors, control of public expenditure and cancellation of debts with companies and self-employed persons contracted by the entities Promotion of business activity and promotion of rehabilitation and administrative simplification; RD 1113/84 of 22 of February on actions of remodeling and relocation in certain neighborhoods.

On other occasions, there have been spatial coincidences of urban, economic and social policies in which apply European structural funds. But the truth is that, on many occasions, sectoral approaches have been imposed and have developed powerful but biased instruments, which have ended the integrated approach and the mere rehabilitation of housing and epithelial improvement of public space has become the center of the interventions.

In fact, the evolution of events has made the housing subsidy policies to be rehabilitated in the most generalized instrument, since the Integrated Rehabilitation Areas (and the derived denominations) have been established from them, with the logic of channeling the investments there where they were most needed.

This shifting of the mode of intervention towards the financing has affected very specific aspects, such as the basic habitability of housing. The very logic of an instrument such as the housing plan, without underestimating its importance, has limited the integral vision, since it has been, above all, a means of financing actions in building, since what is outside the plan, financing is not done.

The management of urban regeneration policies and interventions more closely linked to an integrative model are those developed from the city council, while the management of the Community of Madrid has been atomized with emphasis on financing parts of the building envelope, for example.

As for both institutions this has been an evolutionary process it is advisable to go deeper into this by identifying the chronological stages with which the Rehabilitation Areas have been developed and which districts may be more representative of each one of them.

2.2 Chronology and Proposal of Stages in Regeneration of Neighborhoods in Madrid

From Preferential Rehabilitation Areas (ARP) to Integrated Rehabilitation Zones (ZRI). Proposal of delimitation of stages. We can identify several stages in this evolution of regeneration of neighborhoods in Madrid according to:

- The confluence of rehabilitating ways between City Council and Community of Madrid.
- Legislative production linked to housing plans and ingredients taken into account in rehabilitation.
- And finally, moments in which declarations of rehabilitation areas are encouraged.

There have been identified three periods: from 1994 to 2001, from 2002 to 2008, with two sub-stages from 2001 to 2005 and from 2006 to 2008 and, finally, from 2009 to 2012, which closes most areas of rehabilitation.

From 1994 until 2001, we find a stage marked by the convergence of rehabilitation policies and the clear institutional and sectoral collaboration between administrations. It is possibly the moment in which integral approach of the actions is carried out with more fidelity.

Actually the novelty is twofold. On the one hand, it is recognized that social problems are among the main reasons for granting rehabilitation and, on the other, it is not only considered in rehabilitation policies that these problems have a spatial dimension with which counting for.

The results of investment efforts are more effective in concentrating efforts on specific urban spaces, but this is done without the spatial support of urban planning. That is to say, the policy of subsidies assumes the rehabilitation effort. The

investment effort is over 50,000 million pesetas (300 million €), allowing the results to be displayed in the public space and not only in the building.

From 2002 to 2008, we can say that the model of previous period is given continuity from two interpretations, despite the fact that a very similar legal framework is available in state and regional housing plans. On the one hand we have the rehabilitation of the City Council, which, based on the state housing plans and the Integrated Rehabilitation Areas (ARI), maintains an articulation with urban programs, neighborhood action plans, etc. As well as financing for improvements in infrastructure and public space. On the other hand, from the Community of Madrid emphasizes the rehabilitation of the building in a philosophy that leaves to a large extent the integrated approaches, producing a displacement, according to the years, that facilitates the access to the financing of a fragmentary way, even with regard to what is eligible within the same building. Thus, the plans to “renew” boilers, windows and elevators become the axes of the rehabilitation policy from the Community, which does not prevent a large number of Integrated Rehabilitation Zones (ZRI) from being produced.

The state housing plan 2009–2012 opens a new period in the midst of economic crisis, with the reinforced idea that we must consider neighborhoods as a unit of action, which is an advance of what is reflected in the Charter of Toledo 2010 (Fig. 3).¹

From the quantitative point of view, dwellings involved in securable buildings have been varying for each period described. As shown in Fig. 4, which also includes the stages, the houses that are part of the quota that can be protected by the initiative of the City Council and the Community of Madrid, as well as its peripheral or central location in the city, the rehabilitation effort carried out and planned since 1994 concerns approximately 111,000 homes.

What is clear and, is a very interesting aspect of how rehabilitation of neighborhoods in Madrid has been, is that there seems to be a certain role distribution between the City and the Community of Madrid, especially when the rehabilitation policies acquired certain independence from year 2001.

This is a division of space roles. While the EMVS has focused its efforts in the Historic Center and the Community of Madrid has specialized in the peripheral neighborhoods. As can be seen in the Table, the City Council has been involved in the rehabilitation of 28,572 homes in the center for only 7190 in the periphery, this is 80% compared to 20% of all its interventions. In the case of the Community, 2503 homes have been considered in the center, compared to 72,709 in peripheral neighborhoods of the ZRI subsidies, a negligible 3.5% compared to an overwhelming 96.5%. The proportion is incontestable. On the other hand, in the total

¹Other legislation that affect the rehabilitation activity are Law 2/2011, of March 4, on Sustainable Economy; The measures to promote rehabilitation activity contained in Royal Decree-Law 8/2011, of 1 July, on measures to support mortgage debtors, control of public expenditure and cancellation of debts with companies and self-employed persons contracted by the entities Promotion of business activity and promotion of rehabilitation and administrative simplification; RD 1113/84 of 22 of February on actions of remodeling and relocation in certain neighborhoods.

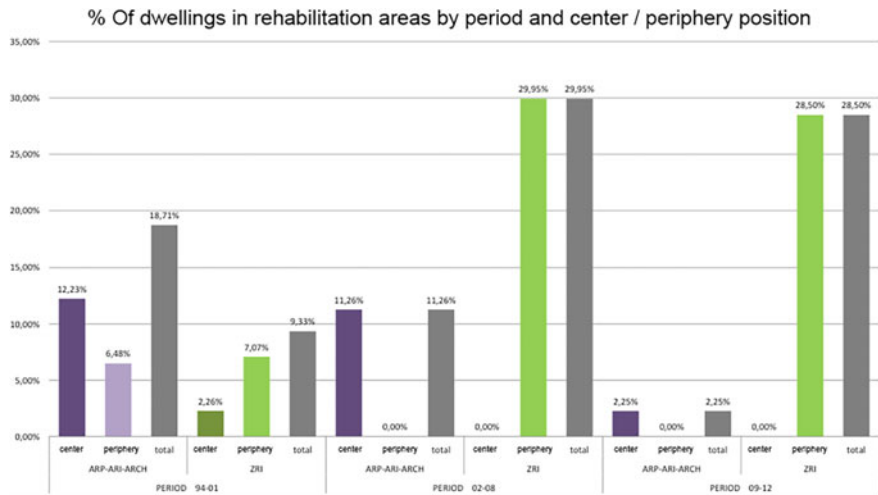


Fig. 3 Center and periphery. Percentage of households declared by rehabilitation area

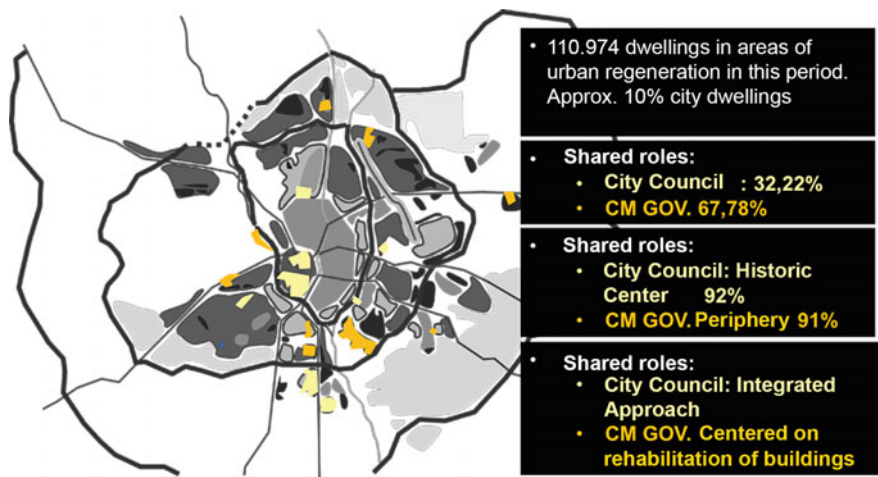


Fig. 4 Roles in urban regenerated areas

computation, the City Council has taken over 92% of the Housing of the Center and the Community of 91% houses of the periphery that have been incorporated in rehabilitation areas (Fig. 5).

Therefore, there are not only variations in the intervention model depending on what has been considered as protected intervention, but in turn there has been a certain spatial specialization. This is an interesting fact when crossing the rehabilitation experience with the processes of change of the social contents in neighborhoods.

PERIOD 94-01						
# dwellings	ARP-ARI-ARCH			ZRI		
	center	periphery	total	center	periphery	total
	13.575	7.190	20.765	2.503	7.851	10.354
total						
31.119						
PERIOD 02-08						
# dwellings	ARP-ARI-ARCH			ZRI		
	center	periphery	total	center	periphery	total
	12.497	-	12.497	-	33.235	33.235
total						
45.732						
PERIOD 09-12						
# dwellings	ARP-ARI-ARCH			ZRI		
	center	periphery	total	center	periphery	total
	2.500	-	2.500	-	31.623	31.623
total						
34.123						
110.974						

Fig. 5 Household totals by rehabilitation areas and periods

From the actions promoter point of view, in Fig. 5, we see that the City Council has considered approximately 30% of total subsidized housing in the ARP, ARI and ARCH rehabilitation, while the ZRI’ S of the Community have considered subsidies for the remaining 70%.

2.3 End of Cycle and New Legal Framework.
The Law 3/8 of 2013

Everything indicates that a change of model looms from 2011 and its consolidation is visualized in 2013. There are several reasons: on the one hand, the Rehabilitation Areas have been closed, leaving only the City of Angels ZRI, and some of the latest statements from the community have not come to fruition.

The new housing plan 2013–2015 and the approval of the Urban Rehabilitation, Regeneration and Renovation Law² clearly moves within the framework of the Toledo Charter to recognize in Integrated Urban Regeneration the conceptual reference in which to develop new operations.

At the same time, given the financing difficulties foreseen for the coming years, the law sets out a model for the implementation of urban regeneration areas, which seems to be aimed at the presence of professionalized private investment in interventions. Therefore, it seems that we are facing a cycle that has closed and the opening of a new context that we will see what praxis entails (Fig. 6).

²Law 8/2013, of June 26, on urban rehabilitation, regeneration and renovation.

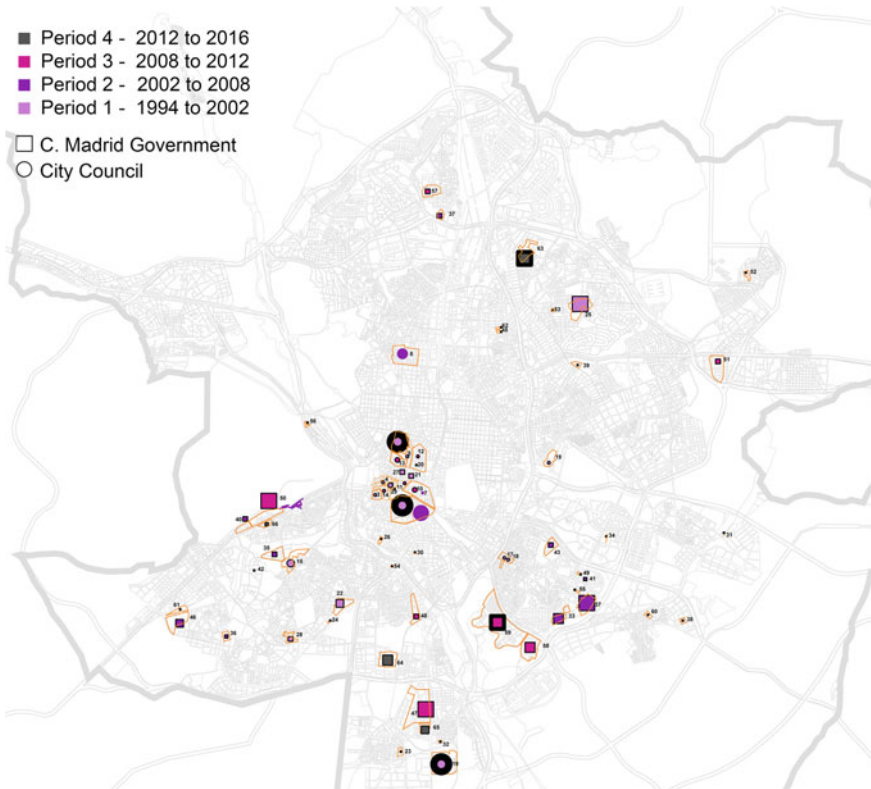


Fig. 6 ARIs and ZRIs evolution

3 Conclusions

3.1 *Present Situation and Future Prospects Reveal Urban Regeneration as a Necessary Practice to Achieve the Challenges of the Present*

The growth of Spanish cities in the last decade has been accompanied by the improvement of the existing city. However, in the next few years, production pace of the city³ does not appear to be repeated, and of course from the point of view of territorial and urban sustainability it is far away from desirable. It opens a stage in which urban assets that we have, are the base, the wicker with which cities will be more livable. In this sense, Sustainable Urban Regeneration is considered as a desirable and possible urban practice. This new stage that is being opened

³Approximately 800,000 homes annually at their peak according to CSCAE.

nowadays presents, from the point of view of its strategic contents, the following challenges:

- **The situation of the current residential park.**

Spanish built park standing is in synthesis: 70% of the buildings were built after 1960, a 16% in the first European post-war, being the remaining 14% before the civil war.

If we take into account the growth prospects of the report “A Vision-Country for the building sector in Spain. Road map for a new housing sector” (Cuchí et al. 2012).

The residential park eligible for rehabilitation between 2012 and 2050 in Spain is approximately 14 million homes. The lack of adaptation to service standards in housing is also a clear deficiency,⁴ as well as the lack of thermal comfort and energy inefficiency, being a good part of the park prior to the use of standards such as the Spanish Technical Building Code.

- **Urban vulnerability is another factor to take into account in regenerative practices of socio-economic or socio-demographic origin.**

It is concentrated in four large cities: Barcelona, Madrid, Seville and Valencia. The affected population is proportionally greater in historical centers, where it has come to concentrate immigrants and/or old population.

- **The need to activate the construction sector.⁵**

Which before the crisis amounted about a 14% of GDP in the country and which in recent years has collapsed to only 5% of its activity a few years ago, may represent an opportunity of re-founding an economic sector around refurbishment.

- **Urban sustainability has become a prerequisite.**

The improvement of the neighborhood’s metabolism nowadays, has its strong point over energy treatment (rational use of private vehicles and energy efficiency in building) and the sustainable use of water, both in buildings and at neighborhood level.

Most of the current efforts in the rehabilitation of housing are being focused on this line.

In European context, efforts have been made to coordinate the implementation of transpositions from the energy efficiency directives which have resulted in the Concerted Action EPBD in 2005, promoting dialogue and exchange of good practices between them.

The current review provides insights on how the 2010/31/EC Directive on recasting is being applied, the evolution towards new and rehabilitated near zero-energy buildings by 2020 and the application of an optimal cost

⁴To give an example, if we look at the situation of the residential park in France, Germany or Italy more than 92% of it has a bathroom or shower, hot water and some type of heating. In Spain, only 63.8% of the existing dwellings have these basic habitability elements.

⁵GTR estimates that housing refurbishment, including energy rehabilitation, can generate between 110,000 and 130,000 jobs annually.

methodology to determine the minimum requirements for both the build envelope and the conditioning systems mechanical facilities.

3.2 Urban Sustainability in the Way of Been Implemented

This last conclusions block, is reduced to a small set of cities representative of all actions cited in this paper. The selection is made, because they are actions of an important size, and because they are located in different areas of the Iberian Peninsula with different climate types, such as mediterranean, continental, and oceanic.

Finally, a more detailed study of the situation in the city of Madrid is carried out, since it is the residence of the authors and the one where data have been obtained more easily or where have been directly participated in the proceedings. A summary table of analysis is presented, which indicates the sustainability criteria that contemplate the actions in the different analyzed cases (Fig. 7).

Given this sample of experiences some guidelines of intervention can indicated:

- All regenerated neighborhoods install lifts as one of the indispensable measures. The sensitivity of the population towards these types of improvements in the accessibility of housing is very strong. Sometimes it is determined by the urgency of solving difficult human situations of people who can not go down the street, and the social consensus that this is a situation below the acceptable standards of habitability. Other times it is understood that the installation of an elevator allows to revalue the property, which without this utility is even out of the market.
- Energy efficiency is another generalized characteristic in those neighborhoods that have been intervened in the last 10 years. Only Lavapiés or La Mina have been given out of this type of performance. The impulse always comes from the public energy policies associated with building and the population demand for this type of improvement is retained by very strong inertia. In some cases, such

Neighborhoods	City	Housing habitability improvement. Vertical Accessibility	Energy Efficiency	Sustainable Mobility sustainable	Sustainable management of water	Renaturalization (urban gardens, etc).	Requalification. New community facilities	Public space improvement as resting space
Lavapiés	Madrid	Elevator not in all occasions. Unresolved poor housing problems	No	Residential priority areas	No	Yes . New park	New self-managed equipment. Theaters, libraries	Remodeling of all squares
Ciudad de los Ángeles	Madrid	Elevators	Yes	No	No	No	No	Handicapped Accessibility
Balsas Viejas de Rio Ebro	Zaragoza	Dwellings enlargement	Yes	Residential priority areas	Yes. Storm pond	Yes. Tio Jorge park renovation	Improvements in two public schools and a Day & Home senior Center	Adaptation for public use of children's games of water tank covers
La Mina	Barcelona	Elevators	No	central tram	No	Besos river recovery	New university headquarters	Central Boulevard
Simancas	Gandia	Elevators. 140 dwellings renovation	Yes	Withdrawal of parking spaces from the street	No	No	Social center	Yes. New square
Coronación	Vitoria	Elevators. Building pathologies	Yes	Pedestrian space improvement	No	No	District heating	Currently to be defined by the participation process

Fig. 7 Sample neighborhoods analisys data

as Ciudad de los Angeles, after the modernization of the former blocks, the advantages of energy saving and improved comfort are becoming known thanks to the diffusion of neighborhood associations in the neighborhood. In the neighborhood of Coronación in Vitoria, the effective diffusion of the advantages is combined with the offer of subsidies only if within the rehabilitation of the buildings is considered the energetic improvement and also they are connected to the new network of centralized neighborhood heating included in the proposal. In Andalucía (Granada, Marbella, Malaga and Seville), energy efficiency of facilities have been considered as well. In the very case of Simancas, Gandía (Valencia), housing with B energy efficiency certification, are not energy rehabilitation but complete replacement by new housing.

- The actions of sustainable mobility appear in an unequal way. In all cases, except in Ciudad de los Angeles, the regenerated areas are considered as a pedestrian priority, but often without deep physical changes that accompany it, leaving everything to private vehicle traffic regulation. In the case of Simancas in Gandía, these measures manage to reduce parking spaces in the street, although new underground garages of residents are proposed. Only in the neighborhood of La Mina in Barcelona, the intervention does involve complex infrastructures, such as the new tram that crosses the boulevard. The bicycle is not explicitly contemplated although pedestrian priority areas can function as spaces of coexistence with the pedestrian in those neighborhoods in which the single platform has been contemplated.
- No neighborhood have considered measures for saving, collecting and treating local water, except for Balsas-Viejas in Zaragoza that views an storm pond for collection rain water.
- The renaturalization of parks or public spaces is also not widely considered. The improvement of the trees in the streets is the most common measure, but does not go beyond a treatment close to the ornamental. Only the improvement of Besós, in La Mina and the incorporation of urban gardens in a new park in the historical fabric (Tabacalera) of Lavapiés are actions that can be classified in this category. The actions on streets and squares of Coronation neighborhood, in Vitoria, are the current object of debate on the possibilities of naturalization in a city that has extensive experience in this type of practices, developed since the implementation of its “Green Ring”.
- The incorporation of new facilities in neighborhoods depends very much on each case. In a city as well equipped as Vitoria, the novelty is the proposal of a new centralized district heating. The use of low buildings, replacing houses and dedicating space to community facilities, public or private is a strategy that is developed in the neighborhood of Simancas in Gandía and is not very common because of difficulties of managing a stock of homes with individual owners up to 85%, which is normal in Spanish neighborhoods. The most ambitious strategies are those of Lavapiés and La Mina, aimed at discouraging these two neighborhoods. The most symbolic equipment that joins the neighborhood is the University, going beyond the efforts to re-qualify these neighborhoods supplying the deficits of everyday urban services. It is a way of connecting the

neighborhood with the population of the rest of the city. We have already commented on the novelty of incorporating the programs of central equipment of community heating, as in the case of Coronation in Vitoria.

- Remodeling of existing squares or the creation of new ones, as well as boulevards and parks, is relatively frequent in regenerated neighborhoods, especially those that were intervened during the first decade of this century. Understanding that the improvement of social cohesion goes through the improvement of collective public space is a simplification with which the social agenda of these neighborhoods has been approached in some cases. In any case it is true that socialization spaces improvement, if not replaced, helps to generate social capital.

As the reader can see, conclusions lead us to understand that within the concept of integrality, it is necessary to influence the agenda of sustainable actions from the point of improving the metabolism of these neighborhoods.

Issues such as energy production with renewable energies in neighborhoods are paralyzed by state regulations of production and distribution in a country with a large amount of hours of sunshine and wind.

Water and its sustainable management in a context of increasing aridity of much of the Spanish territory, incomprehensibly is out of the focus of all actions.

Recycling of garbage is centralized and its management does not rest in any way in districts, nor even for the composting of the residues to produce fertilizers of urban orchards, that on the other hand are beginning to turn into a citizen demand of districts more aware about ecological crisis that cross our cities.

Energy efficiency, sustainable mobility and reconquered basic habitability are the central axes of the most immediate past or currently under development urban regeneration actions.

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