

Diàlegs d'Habitatge

*Public-private and
public-community
partnerships to increase
affordable housing*

How to achieve it through sustainable renovation and
construction

Public-private and public-community partnerships to increase affordable housing

How to achieve it through sustainable renovation and
construction

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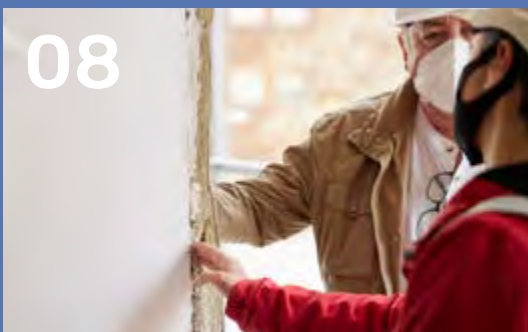
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Introduction

Guaranteeing access to housing at affordable prices has become a very serious challenge for cities all over the world. In the context of neoliberalism, protecting this social right contrasts with the view of property as an investment asset in international markets, a problem compounded by the socio-economic impact of Covid-19.

The shortage of social and affordable housing is much greater here than in other European countries. This is due to historical, social, economic and political factors relating to Spain as a whole. Less than 2% of the residential stock in Spain is affordable and public rental housing. This is in stark contrast with the European average of 15%. According to estimates, 90,000 more affordable homes are needed to cover social demand in the Barcelona Metropolitan Area. This is a huge challenge that cannot be faced by the Administration on its own.





The main theme of this publication is precisely how to guarantee the right to housing and ensure it is affordable, not just from the point of view of public policies but also based on partnerships between the Administration and other social and economic players, who can be from either the business (public-private partnerships) or the social and cooperative (public-community partnerships) world. This document has been drawn up based on talks given at the Barcelona Housing and Renovation Forum (FHAR) held on 23 and 24 November 2021 at the Sant Pau Art Nouveau Site.

Furthermore, these have been supplemented with bibliographical sources and the additional testimonies of seven experts in addition to those who took part in the forum. The additional interviews were held with: Alberto Bayona, Managing Director of Nasuvinsa, the public-service housing and urban planning association of Navarre; Mirela Fiori and Xavier Anzano, director and external collaborator

respectively of the official Master's Degree in Cities and Urbanism of the Open University of Catalonia (UOC); Sònia Hernández-Montañó Bou, an architect specialising in healthy architecture and bioconstruction and coordinator of the Work and Health Group of the Architects' Association of Catalonia (COAC); Alejandro Inurrieta, economist, housing expert and former President of the Spanish Public Rental Company; Marta Morera, Director of the Catalan Energy Institute (ICAEN); and Mirja Serrao, President of ABZ, Switzerland's largest housing cooperative.

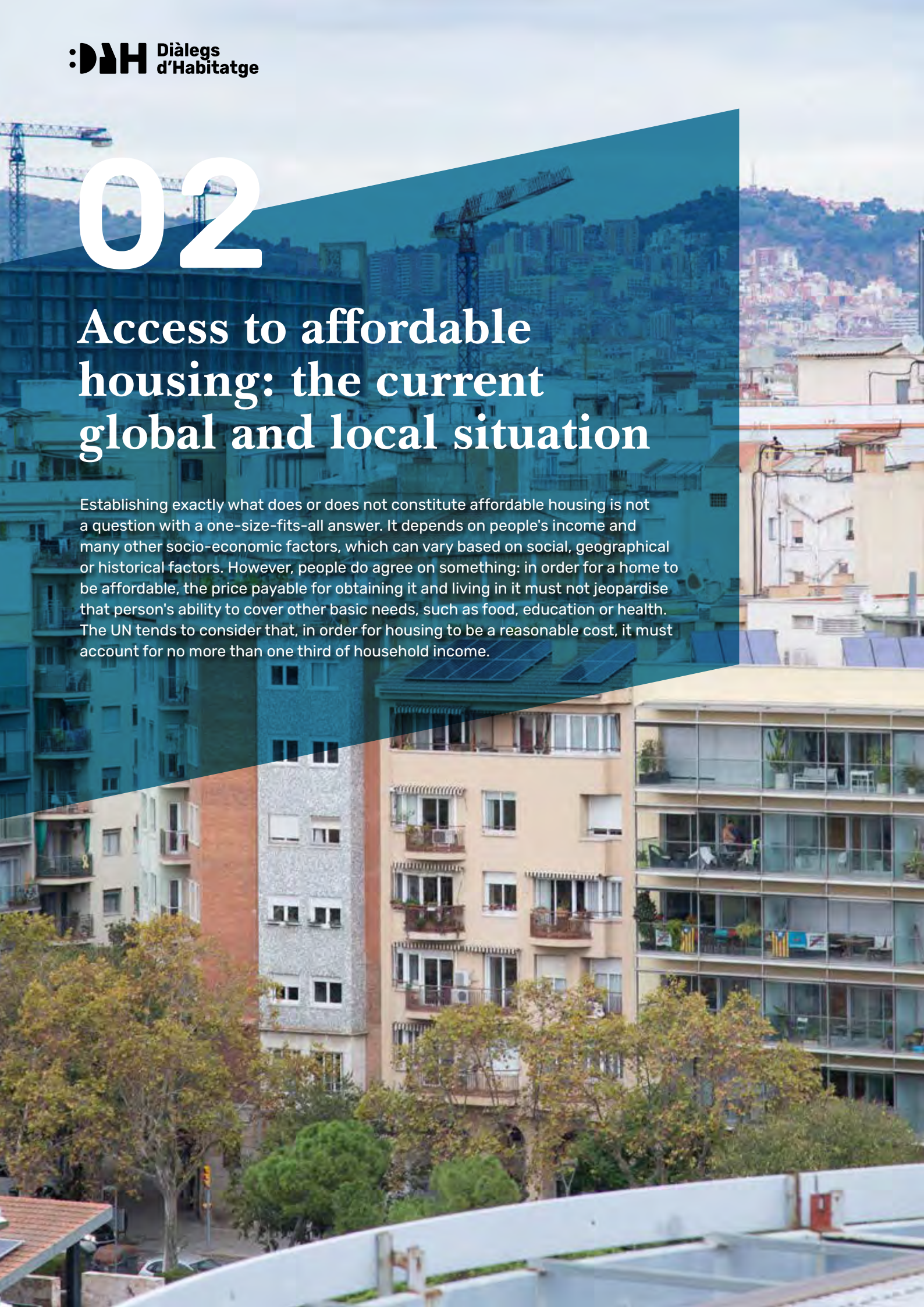
The sources used show that the process for increasing the affordable housing stock must be combined with other environmental, energy and social sustainability goals and health and well-being goals, which must be taken into account not only in relation to the buildings themselves but also when it comes to planning or renewing the urban environment around them. The pandemic has clearly shown that we need healthy and sustainable urban habitats and homes.

The following pages contain information on European benchmarks in the field of housing and urban planning policies designed in accordance with the above criteria, as well as the most cutting-edge initiatives carried out in Spain, including some carried out in Barcelona. We hope that this publication will help you find answers to the many challenges currently facing the aim of increasing the affordable housing stock. 🏡

02

Access to affordable housing: the current global and local situation

Establishing exactly what does or does not constitute affordable housing is not a question with a one-size-fits-all answer. It depends on people's income and many other socio-economic factors, which can vary based on social, geographical or historical factors. However, people do agree on something: in order for a home to be affordable, the price payable for obtaining it and living in it must not jeopardise that person's ability to cover other basic needs, such as food, education or health. The UN tends to consider that, in order for housing to be a reasonable cost, it must account for no more than one third of household income.



The global situation: supporting housing as a social right as opposed to an investment asset

In the context of neoliberal capitalism, housing has been turned into a commodity and a financial asset in international markets, hindering affordable access to this basic right.

The public and social housing stock has been reduced in several European countries since the start of neoliberalism in the 1980s. The most archetypal example of this happened in the United Kingdom, when the then Prime Minister Margaret Thatcher (1979-1990) gave public housing tenants the right to buy their homes and many families applied for mortgages to do so (Housing Europe, 2021), which resulted in a loss of public housing.

In the 21st century, access to the right to decent housing is still a huge challenge worldwide. Global financial capitals without any ties to territories are colonising those territories and using urban habitats and housing to speculate instead of give effect to citizen rights (Rolnik, 2017).

This is one of the main factors speeding up what is known as gentrification in cities all over the world, forcing the traditional residents of certain urban neighbourhoods to leave and replacing them with people with greater purchasing power due to the higher price of those homes and of the cost of living in general (Janoschka and Sequera, 2014). Mass tourism – and the resulting pressure exerted by tourist accommodation on residential rent prices – and certain urban planning policies can also speed up the gentrification process (Arias-Sans, 2018).



These phenomena existed side by side between the 1990s and the early 21st century with the property and mortgage *boom* in several countries in the world – including Spain, which saw a large boom – but this ended with the financial crisis of 2008. The trigger of the crisis, whose epicentre was in the United States, relates to what is known as *subprime* mortgages: mortgage loans for large amounts and interest granted to people with little money to pay them back. When many of these families were unable to make their mortgage payments, leading to a wave of evictions, financial institutions were struck by a liquidity crisis that gradually spilled over to other players in the world economic and financial system.

The pandemic causes more poverty while housing prices remain the same

More recently, the right to housing has faced new risks and threats as a result of the socio-economic impact of Covid-19. In Europe, the at-risk-of-poverty-or-social-exclusion rate (AROPE) rose from 16.8% to 18.6% (Housing Europe, 2021) between 2019 and 2020. Property market prices, on the other hand, remained the same. According to data provided by the European Central Bank for the second quarter of 2021, EU countries saw a year-on-year house price increase of 7.3%. In fact, the ECB is warning of the risk of another global financial crisis if this property bubble bursts.



The situation in Spain: at a disadvantage compared to the rest of Europe

Compared to many other European countries, Spain is at a clear disadvantage in terms of social and public housing, particularly rental housing. Compared to Spain, where rental housing accounts for 1.5% of residential stock, and Catalonia, where it accounts for 1.6%, in Europe it accounts for 9.3% on average. This rises to 15% for all EU-15 countries as a whole. Several countries have a higher than average percentage (e.g. 30% in the Netherlands, 24% in Austria, 19% in Denmark) (COHABITAC and Catalonia Third Sector Round Table, 2020).

Why is Spain so far behind European levels? The reasons for this go all the way back to over a century ago when, unlike Spain, many of our neighbouring countries (such as Germany, Denmark and Austria) started to drive ambitious social housing schemes between the late 19th and the early 20th centuries in response to the growth in urban population as a result of industrialisation. But what made this shortage significantly worse was the Franco dictatorship, during which social housing programmes were set aside, which explains the

proliferation of shantytowns on the outskirts of large industrial cities such as Barcelona, Madrid or Bilbao following the wave of rural-to-urban migration of the 1960s (Tatjer, 2011).

Encouraging mortgage-enabled home ownership and setting social housing aside are trends inherited from the dictatorship

The liberalisation of land was encouraged during the dictatorship to make it available to private developers for the construction of homes, which were then sold to private owners. Already back then, mortgage loans started to be granted through a Franco-controlled bank to help people buy these homes. In addition, the foundations of the officially protected housing model (HPO) were also laid during Franco's dictatorship. This scheme, which still exists in the vast majority of Spanish cities, is also characterised by giving priority to buying over renting, at

prices that are unaffordable for people in the most vulnerable social groups. This dynamic also results in a loss of public assets in the long term, as homes included in this scheme end up being taken out of this category. The only autonomous regions that have reversed this trend in the last few years have been the Basque Country, Catalonia, the Valencia Region and the Balearic Islands, whose HPO housing is for rent only and cannot be taken out of this category.

These trends were seen again after the transition to democracy, particularly during the real estate boom (1997-2007), when the culture of property ownership continued to be encouraged, the mortgage market was opened up to private financial institutions, and public and social housing programmes continued to be set aside (Betrán, 2002). Even now, 76.7% of the Spanish population are home owners, compared to 23.3% living in rented properties. In Germany, in contrast, 48.6% live in rented accommodation. In Austria, this figure is 45%; and in Denmark it is 37.8%. This is shown by data from Housing Europe and the National Institute of Statistics' (INE) Survey of Living Conditions (2017).

Following the real estate bubble burst of 2008 and the resulting wave of mortgage foreclosures, the shortage of social housing for rent in

Spain further exacerbated the housing emergency, because there was not enough housing – a shortage that continues to this day – to rehouse all the people who had lost their homes. According to the General Council of the Spanish Judiciary (CGPJ), there were 446,917 evictions in Spain between 2008 and 2015 alone, and 1 out of every 5 of these were in Catalonia. The public authorities' inadequate response led to the creation in Barcelona of the Platform for People Affected by Mortgages (PAH) in 2009.

In addition, the crisis halted the authorities' plans to increase the affordable housing stock. This can be seen, for example, in the systematic breaches of the Catalan Right to Housing Act of 2007, under which Catalonia was to reach European levels within 20 years. The Act specifically established that the percentage of social and affordable housing should account for 15% of all residential stock by then. The reality is that this percentage remains stuck at under 2%.

The rise in rental prices and demand after the 2008 mortgage crisis

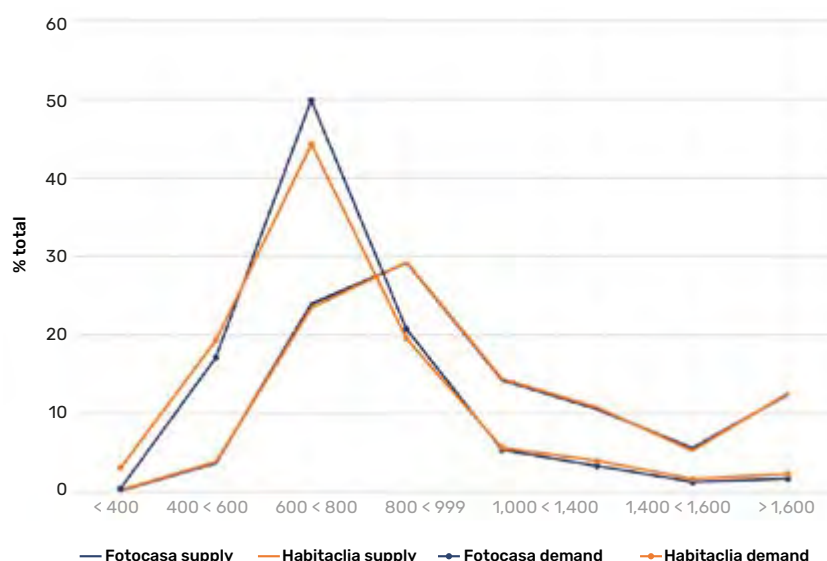
The financial crisis was also followed by a rise in demand for rental properties caused by families' inability to buy due to a loss of income and the shutting off of the mortgage tap. In Barcelona, in 2019 the percentage of people living in rented accommodation already accounted for 38.4% of the total, compared to 28.5% in 2001; and in the metropolitan area as a whole, the figure went from 12% to 23.4% in the same period (OH-B, 2020b).

However, the rise in demand for rental properties also resulted in renewed interest in the rental market by the financial and real estate sectors. In addition, various regulatory changes affecting the rental market were made at that time. REITs (real-estate investment trusts, known in Spain as SOCIMIs) were first created in 2009. These are organisations engaged in the sale, purchase and development of real estate for rent in order to maximise profit for their shareholders. Three years later, their tax obligations were reduced. In addition, a reform of the Urban Lease Act – which has now been repealed – reducing the minimum term of leases from 5 to 3 years and unlinking annual rent adjustments from the consumer price index was approved in 2013.

The gap between rental asking prices and the prices demanded by the public

These regulatory changes, added to an increase in demand and to global financial and real estate market dynamics, resulted in higher rental prices. The Barcelona Metropolitan Housing Observatory (O-HB) has warned that rental property asking prices do not match the needs and incomes of people looking for rental accommodation. In the metropolitan area, just over 20% of properties on offer are offered for between €600 and €800 per month, which is the bracket searched for by over 40% of respondents (O-HB, 2021).

GRAPH 1. DISTRIBUTION BY PRICE BRACKET OF RENTAL HOUSING SUPPLY AND DEMAND IN THE BARCELONA METROPOLITAN AREA (THIRD QUARTER OF 2021)



Source: O-HB, from data provided by the Adevinta group

As a result, households are overwhelmed by housing costs – in Barcelona, 37% of households spend over 40% of their income on rent (O-HB, 2020b) – with the resulting increase in evictions. Specifically, according to CGPJ data for the third quarter of 2021, 70% of evictions in that period were due to non-payment of rent. In order to address this growing problem, the PAH was joined by the creation of the Tenants' Union in 2017.

Exceptional rent and mortgage payment moratoriums during the pandemic

Most recently, in the context of the socio-economic impact of Covid-19, the increase in rental prices in Barcelona and its metropolitan area slowed down, but not for long. In the case of the city, according to real estate portals, asking prices fell 20%, from an average of €1,500 per month to an average of €1,200 per month, in the second half of 2020. However, they rose again (by 1.8%) in the second quarter of 2021 (O-HB, 2021).

With high prices in both the rental and purchase markets (purchase prices also started to rise again in 2014, more specifically by 28.9% until 2020 in Catalonia), the pandemic's impact on households has led the public administrations to put in place emergency measures

in the form of moratoriums on evictions and mortgage and rent payments, as well as automatic extensions to leases at the same prices as before (such as those established in Royal Executive Decrees 8/2020 and 11/2020 and their successive extensions). The Generalitat de Catalunya and various city councils also adopted measures to supplement those of the Spanish Government. With the support of the Barcelona Anti-eviction Unit, mediation agreements or agreements to suspend or extend the term for payment of rent were reached between tenants and owners in 77% of cases with a risk of eviction (O- HB, 2020b). However, not even these emergency measures have been enough to prevent all evictions, and social movements are warning that their number may start growing again, particularly when these moratoriums come to an end.



Changes in trend in Barcelona, Catalonia and throughout Spain

Significant progress has been made in this area, particularly in Barcelona and Catalonia, where social movements for the right to housing are more firmly established than in other parts of Spain, although still far from European social and affordable rent levels.

Advances in social housing for people at risk of housing exclusion

Two years after the PAH's national popular legislative initiative (ILP) for dation in payment and social rent failed to be passed by the Spanish Parliament, Act 24/2015 against the housing emergency and energy poverty *was* passed by the Catalan Parliament. This too was the result of a popular legislative initiative by the PAH and the Alliance against Energy Poverty (APE), among other organisations. Under Act 24/2015, large property owners were required to offer families in a vulnerable situation social rent before evicting them, or to use the flats they owned for social rental if they had been empty for more than two years. It also prevented energy companies from cutting off families who were unable to pay due to financial difficulties.

Since then, the rules increasing large property owners' social rent obligations have been through a long journey through the courts leading to the approval of new laws (such as Act 4/2016) to replace those that were being halted by the Spanish Constitutional Court (TC).

The last of these obstacles relates to Decree 17/2019, under which large property owners' social rent obligations were increased by the Generalitat. On the one hand, it extended the concept of large property owner to include any owner of more than 15 homes. It also established that social rent had to be offered not just to people with socio-economic difficulties under eviction processes but also to tenants who had reached the end of their lease and could no longer afford the same monthly payments. Furthermore, it laid down an obligation to offer social rent to those people who had been living in a home during the six months leading to the decree's entry into force because they had no housing alternative.

These provisions of the decree were declared unconstitutional by the Spanish Constitutional Court again in early 2021 (Spanish Constitutional Court Judgment (STC) 6/2021). The social movements responded quickly: the PAH and other



organisations pushed for the Catalan Parliament to approve an act to bring back the social rent and anti-eviction measures cancelled by the Spanish Constitutional Court, which came into force in March 2022 (Act 1/2022).

Newly built social housing cannot lose its classification in Catalonia

Another very relevant new development brought in by Decree 17/2019 that was not suspended by the Spanish Constitutional Court was giving newly built officially protected housing (HPO) permanent status that cannot be lost. This reform, which breaks with the waterline of the Spanish traditional HPO model, had previously been carried out only in the Basque Country in 2002 (Article 9 of Decree 315/2002). It is also one of the changes included in Spain's housing act that is still being processed at the time of writing. Specifically, the draft bill provides permanent protection for HPOs built on land reserved for social housing (Article 16, Section d).

Rent control: advances and legal uncertainty

The rent control debate has also come up strongly on both the Catalan and Spanish political agendas, particularly since 2017. In September 2020, Catalonia became the first autonomous region to approve a rent control law (Act 11/2020), which was in force for over a year and a half until the Spanish Constitutional Court held it to be unconstitutional in March 2022 on the basis that the regional governments lacked the necessary powers to pass it. This has resulted in serious indignation and protests from social movements.

At national level, the Spanish Government had already repealed, in March 2019, the reform of the Urban Lease Act of 2013 through Royal Executive Decree 7/2019, bringing back minimum lease terms of 5 years. Furthermore, the Spanish housing act currently in process also includes price control measures, although social movements are complaining that these are less ambitious than the Catalan legislation. One of the main differences between the Catalan act and the Spanish one is that the Catalan one applied to both small and large owners, whereas the Spanish one applies only to the latter. For small owners, the Spanish act includes tax incentives to encourage them to reduce rent on a voluntary basis. Furthermore, the application of the Spanish legislation is voluntary for each autonomous region.

In addition, after the Catalan legislation was repealed by the Spanish Constitutional Court, the Generalitat de Catalunya may now have to decide, once it has been passed by the Spanish Parliament, whether or not to implement the Spanish legislation.

A larger budget for housing policies

The pressure of social movements and municipalism has also helped strengthen public housing budgets. In Barcelona, the City Council's housing budget rose from €147.7 million to €187.1 million between 2020 and 2022.

In fact, the annual municipal allocations for housing in the current local housing plan (2016-2025) are on average 77% higher than those of the previous plan (2008-2015). Compared to the total budget allocation of €1.6662 billion, the previous plan had a budget of €756 million. In the case of Barcelona, the budget allocated by the Generalitat de Catalunya through the Barcelona Housing Consortium plus the City Council's housing policy budget for 2016-2025 add up to almost €2 billion. If you also include the financing sources of other public and private players, the overall calculation adds up to close to €3 billion.

In Catalonia, the Generalitat's housing and urban action budget doubled from €380.6 million to €797.1 million between 2020 and 2022. The Generalitat's budgets in this regard also fell after the financial crisis, going from €506.2 million in 2011 to €289.9 million in 2015, but they have shown a gradual upward trend since then.

In the Spanish Government's general accounts, the item relating to access to housing and the promotion of construction has similarly risen from €481 million in 2020 to the €3.295 billion budgeted for 2022. This year's

expected figure is higher than the €1.61593 billion budgeted in 2009, before the crisis and the ensuing downward trend in public budgets that is now starting to reverse. The European Next Generation funds, whose priorities include energy renovation, help increase the budget items aimed at the renovation of the housing stock for affordable rent.

This means that progress in the aim of guaranteeing the right to housing in terms of both legislation and budgets has been made since the 2008 crisis. However, there is still a long way to go before reaching the figure of 1% of GDP that is considered necessary in order to provide a public housing stock at the same level as the European average. In addition, the Spanish Constitutional Court's interpretation of the jurisdictional framework in this field makes it difficult for Catalonia's social movement-driven laws for the protection of the right to housing to remain in place. 🏠

03

Challenges facing the promotion of affordable housing



Any plans to increase the affordable housing stock must also take account of other needs relating to the sustainability of the residential stock and its surroundings. The current climate emergency and the lockdown periods during the pandemic have made it clear that we need to promote healthy and sustainable urban habitats and housing. The United Nations Sustainable Development Goals (SDGs) for 2030 provide a useful guide in this regard.

SDGs 2030 to be taken into account in housing policies

3



HEALTH AND WELL-BEING

3.4. To reduce premature mortality from non-communicable diseases by a third by 2030 through prevention and treatment, and to promote mental health and well-being.

12



TO ENSURE SUSTAINABLE CONSUMPTION AND PRODUCTION PATTERNS

12.2. To achieve the sustainable management and efficient use of natural resources by 2030.

5



TO ACHIEVE GENDER EQUALITY AND EMPOWER ALL WOMEN AND GIRLS

5.1. To end all forms of discrimination against all women and girls everywhere in the world.

13



CLIMATE ACTION

13.2. To integrate climate change measures into national policies, strategies and planning.

11



SUSTAINABLE CITIES AND COMMUNITIES

11.1. To ensure access for all to adequate, safe and affordable housing and basic services, and upgrade slums, between now and 2030.

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PARTNERSHIP FOR THE ACHIEVEMENT OF GOALS

17.17. To encourage and promote effective public, public-private and civil society partnerships, building on their experience and resourcing strategies.

Below are the main challenges involved in increasing the sustainable and affordable housing stock in accordance with the Sustainable Development Goals for 2030.

CHALLENGE 1:

Using data to plan housing policies

We need data to help guide our decision-making processes so we can plan housing policies that meet people's needs. This will also result in a more effective and efficient public investment in housing. With a better territory-based knowledge of the housing stock for each area, you can also adopt and adapt housing policies in accordance with each local situation.

Spain has a historical shortage in this regard compared to many of its European neighbours, although some housing data research and analysis initiatives have started to be undertaken in recent years, especially in Catalonia. The Metropolitan Housing Observatory (O-HB), which was created in 2017, and the recently created Barcelona Chair in Housing Studies, the first inter-university programme of this kind in Spain, which was created in late 2021, are good examples of this.

CHALLENGE 2:

Making housing policies that cater not just to the most disadvantaged groups but to all citizens

Problems accessing housing have become widespread in large swathes of the population as a result of the pressure exerted on cities by global financial capital, gentrification and the pressure of excessive tourism on the urban fabric, among other factors. Focusing all support on people at risk of social and residential exclusion can thus have a negative impact on the social legitimacy of housing policies (Employment, Economic and Social Council of Catalonia (CTESC), 2021).

The needs of other social groups must also be addressed. These include, among others, people with medium-low incomes, particularly young people in employment, single-mother households, large families, people with precarious jobs, people with functional diversity, the elderly, and so on (Housing Europe, 2021).

This neither can nor should be incompatible with the deployment of specific measures to address the needs of the most vulnerable groups in society, which also include people in a broad spectrum of situations, ranging from the homeless to those living in substandard accommodation (poor-quality or overcrowded homes, improvised accommodation, sublet rooms, etc.), people who are squatting due to a lack of housing alternatives, women suffering from gender violence, and migrants or refugees, among others.

CHALLENGE 3:**Obtaining funding for the promotion of affordable housing to reach 1% of Spain's GDP**

Bearing in mind that affordable public rental housing in Spain accounts for less than 2% of the residential stock, the goal of reversing this shortage in the medium and long terms must necessarily be combined with measures to guarantee affordable private renting.

Rent control measures such as those put in place in several European cities (such as Paris, Berlin, Copenhagen or Barcelona) or offering owners incentives to reduce their rent are two different – and not necessarily mutually exclusive – ways to address the issue.

**CHALLENGE 4:****Getting the public and private sectors to work together to increase the affordable rental housing stock**

Encouraging public and private players to work together to achieve this goal requires us to overcome the habits of the traditional model governing relations between these two sectors. Under this model, policies and legislation are aligned with the interests of the private sector, and public resources are transferred to the market, privatising profits but socialising losses. This is what happened in Spain, particularly towards the end of the real estate *boom* (1997-2007). A good example of this is the declassification of officially protected housing (HPO) after 15 to 30 years and the transfer of those properties into the private market.

Overcoming these habits requires a paradigm shift in relations between the public and private sectors and a move from the traditional model – which could be described as parasitic – to a symbiotic model that fosters mutual collaboration to achieve a general-interest goal: the expansion of the affordable housing stock.

CHALLENGE 5:**Promoting public-community partnerships to increase affordable housing**

In addition to private commercial enterprises, the Administration can work on the promotion of affordable housing with cooperatives, foundations and third-sector organisations operating in the housing sector, as well as with the public and communities themselves.

Public-community collaboration is common in several European countries (such as Austria and the Netherlands) that have a long tradition of non-profit housing associations and cooperatives. In the Netherlands, for example, non-profit housing associations manage up to 2.3 million affordable homes, 32% of the country's housing stock. In Spain, on the other hand, this practice is still very much the exception, although Barcelona is spearheading its promotion in the whole country.

CHALLENGE 6:

Obtaining funding for the promotion of affordable housing

According to Eurostat data published in 2021, the various government administrations in Spain invested €35.4 per person in social housing between 2007 and 2017. This is in contrast to the European average of €148. Spain must thus continue to increase the public budgets allocated to housing policies to bring them into line with their European counterparts, as well as take advantage of any opportunities for funding from European institutions that may arise. The European Next Generation funds thus provide an opportunity to renovate homes in accordance with energy efficiency criteria and make them available as affordable rental homes. In fact, a higher allocation for housing policies can already be seen in the Spanish Government's latest budget for 2022.

However, private funds for the promotion of affordable housing are also needed. This practice, which is common in countries such as Austria and the Netherlands, is among those that have made it possible, for example, to grow the cooperative housing model. In Spain, however, this is still a rare practice carried out by only a few organisations, mainly those operating in ethical finance. However, we must not give up on involving the traditional financial sector and requesting its collaboration for this purpose.



CHALLENGE 7:

Increasing the amount of affordable housing based on the city's existing buildings

The EU is one of the most urbanised places in the world. Over 70% of its population live in urban centres, resulting in very dense populations. Many European cities (such as London and Barcelona) suffer from a shortage of building land. This in turn makes land more expensive, which can affect the final rent or sale price of housing (Nasarre-Aznar *et al.*, 2021).

The building land shortage is compounded by an increasing amount of European legislation on environmental protection passed to address the climate emergency under which buildings and infrastructure may not be built in certain areas that are protected due to the value of their natural environment and biodiversity.

In view of this, the renovation of existing buildings emerges as the option that should be chosen in preference to new construction. However, if renovation is insufficient to meet social demand, we need to ask whether sites initially designed for other uses (such as industrial or other facilities) can be repurposed to increase the affordable housing stock by using urban planning instruments or whether more storeys could be added to existing residential buildings in cities.





CHALLENGE 8:

Promoting and renovating affordable housing while minimising environmental impact

Spain's housing stock is 45 years old on average, with an energy rating of E, one of the lowest energy efficiency ratings. This was stated in a report produced by the real estate website Idealista in 2021.

We must therefore reduce the environmental impact of housing development and renovation and encourage features in homes that lead to better energy efficiency and savings for residents, with the resulting economic savings. This will also help alleviate energy poverty.

CHALLENGE 10:

Promoting healthy and sustainable urban models

Urban habitats must guarantee sustainable environmental conditions that are suitable for people's health and enable them to enjoy quality public spaces, with areas for strolling, leisure and community life, green areas and the necessary services and facilities for everyday life close to their homes. The right to mobility must also be guaranteed, giving priority to public and sustainable transport.

CHALLENGE 9:

Promoting and renovating homes that meet social needs and guarantee people's health

The pandemic has particularly brought to the fore the need to ensure that homes have balconies or other outdoor spaces and appropriate room and conditions for the number and type of people living in them.

Housing conditions (temperature, lighting, accessibility, thermal insulation, noise levels, etc.) must also guarantee people's health and well-being. The Housing Europe federation (2021) has warned in this regard that precarious living conditions can make people vulnerable to stress, social isolation or a long list of diseases.

Furthermore, the OECD has highlighted the need to adapt homes and their surroundings to the needs of the elderly (as regards services, facilities, the accessibility of buildings and streets, etc.) in view of the ageing population. On the other hand, we must bear in mind that family and shared-living models are becoming more varied and there is a downward trend in the number of people in a single household. In Catalonia, the number of one-person households experienced particular growth between 2007 and 2019 (rising by 6.6 percentage points and accounting for 26.1% of households) (CTESC, 2021). In spite of this, most homes still follow traditional family models, a trend that must be gradually reversed.

These needs became more evident with the Covid-19 pandemic, and some emergency solutions were adopted through so-called *tactical urban planning*, which includes, for example, traffic-calming measures on streets. The challenge now facing us is how to put in place structural solutions to help consolidate these changes in the long term. 🏡

04

From the global to the
local context: general
action guidelines adapted
to different urban contexts



A global framework for action to guarantee affordable housing: the Housing 2030 report

In order to find global solutions to the challenge of guaranteeing affordable housing that can then be adapted to each local situation, various European institutions have spent two years working on the “*Housing 2030*” study, which was presented in October 2021. This study, prepared with the involvement of 1,200 experts in the field from various countries, has been jointly promoted by the United Nations through UNECE (the United Nations Economic Commission for Europe) and UN-Habitat (the United Nations Human Settlement Programme) together with *Housing Europe* (the European Federation of Public, Cooperative & Social Housing). The report was drawn up using surveys conducted among experts and various sectors and professionals involved in housing in 56 countries.

Four global pillars of action

The study proposes general frameworks for addressing the housing affordability crisis split into four pillars of action: governance and regulation, access to funding for the promotion of policies in this area, the availability of land, or the application of sustainability criteria in the construction and renovation of buildings. The study presents a total of 30 types of political tools to implement these main categories and up to 70 implementation models based on examples from different countries.

Governance

Julie Lawson, Honorary Associate Professor of Housing Studies at the Centre for Urban Research or RMIT University (Australia), and content coordinator for the *Housing 2030* study, highlights the importance of “multilevel governance in housing policies”. In the expert’s opinion, we must define a set of “strategic frameworks” to design and give consistency to the main lines of action on housing established by institutions covering different types of territories (e.g. international, European, national, regional or local). In Lawson’s opinion, it is key to ensure that actions taken by local bodies have “the support of national governments that is often lacking”.

The governments of all types of territories need “leadership and political commitment” to guarantee access to affordable housing, as well as competent and specialist personnel, data and indicators that can help guide governments when designing the best responses in each local context.

The coordinator of the *Housing 2030* report also highlights the need to involve private companies to guarantee the affordability of housing prices either by means of incentives or by regulating their activities: “They must serve the social function of ownership beyond the mere pursuit of economic profit”.

She also urges administrations to work together with social organisations, such as non-profit housing associations and cooperatives, as well as with citizens themselves, in the search for answers to the housing crisis. The report provides various examples of countries in which residents are involved in decisions about their homes.

In Estonia, more than half the owners in a building must agree on any renovation works before they can be carried out

Estonia, just like in other Eastern European countries, carried out a mass privatisation of housing in the 1990s, which explains why the vast majority of residents are home owners. These homes are managed by associations inspired by the cooperative model, whose members are the homeowners themselves and that are governed by the rules on shared living in the community. For example, they stipulate that more than half the owners in each building must agree on the scope and budget of any renovation works before they can be carried out. This governance model has been fairly successful in reducing the percentage of households in poorly maintained homes, which has fallen from 40% to 20% between 2004 and the present day.



JULIE LAWSON, coordinator of the Housing 2030 report:

“We must combine public funding with the use of private capital to increase the affordable housing stock”



Funding

The public sector can allocate budget items to the development and renovation of buildings for use as affordable housing, or transfer public land to build affordable housing on it. Furthermore, they can put in place rent control policies or give owners tax incentives to make their homes available as affordable rental homes. Grants and subsidies to help tenants pay their rent can be awarded to prevent evictions.

According to Lawson, we must also “combine public funding with the use of private capital to increase the affordable housing stock”. However, she also believes in involving the tenants themselves by making small financial contributions to the funding of renovation works, something that is already being done in various countries.

The private sector can grant repayable loans for the construction of affordable housing to non-profit housing associations or cooperatives, a practice that is already carried out in the Netherlands, Denmark and Austria, among others. In many of these countries, once these associations have repaid the loan used to build the homes, the rent received from tenants is reinvested in the expansion of the social and cooperative housing stock or in improving and renovating the existing stock.

Housing associations in the Netherlands, Denmark and Austria, among others, reinvest the rent received from tenants in the expansion or renovation of the cooperative housing stock

Land policies

The report highlights the need, in view of the shortage of land for new housing in many city centres, to carefully plan the use of that land to ensure it is available for affordable housing developments. It thus makes various proposals, such as establishing public land banks for affordable housing, the public leasing of land subject to the condition of being used for this purpose, or agreements for the planning of neighbourhoods being developed or redeveloped to increase the number of flats for below-market rent. If public resources are required in order to fund housing policies, public land can be sold and the profit reinvested for this purpose.

THE PRINCIPLE OF SOCIALLY FAIR LAND USE (SoBoN) IN MUNICH

When it comes to increasing the amount of land to be used for affordable housing, there are many examples of good practices. For example, the city of Munich in Germany has put in place a long-term land management strategy under which some land is earmarked for public, social and affordable housing. The strategy is based on the principle of SoBoN (the German acronym for “*socially fair use of land*”), under which the distribution of land uses and the decision on which part is to be used for affordable housing are established in accordance with each neighbourhood's social needs. The general criterion under SoBoN is that at least 30% of residential land should be earmarked for social housing. In the case of municipally owned land, this percentage rises to 60%.

The development of the foundations for this model of socially fair land use started in the early 1990s in response to the city's serious shortage of affordable housing. In addition, under the principles underlying the SoBoN, if a given part of the city increases in value as a result of an urban transformation process, the people who benefit from it (such as the owners of properties in the area) must help fund part of the remodelling works. This co-funding system makes it easier to obtain private funds for urban transformation.

With a tax on land, Spain could raise an extra €100,000 million for housing policies

Alejandro Inurrieta, an economist, housing expert and former President of the Spanish Public Rental Company, proposes the creation of a tax on land chargeable on 80% of the land's rateable value, with a starting rate of almost 3%. As explained in his latest book *La vivienda, la revolución más urgente*, an additional €100 billion could be raised this way and used to fund housing policies. “This tax would remove the desire and tendency to speculate, and it would force land owners who don't want to put their land on the market to pay taxes so that the longer they wait to put it on the market, the more taxes they have to pay,” explained Inurrieta. According to the expert, in the UK or Denmark, for example, “such measures have been in place for many years,” and putting them in place in Spain is just “a matter of political will”.



Climate neutrality

Lawson explains, for example, that the Netherlands is committed to “the decarbonisation of construction as part of the national strategy”, or that Estonia includes environmental criteria in “the strategy to renovate and improve the quality of Soviet-era homes instead of demolishing them”.

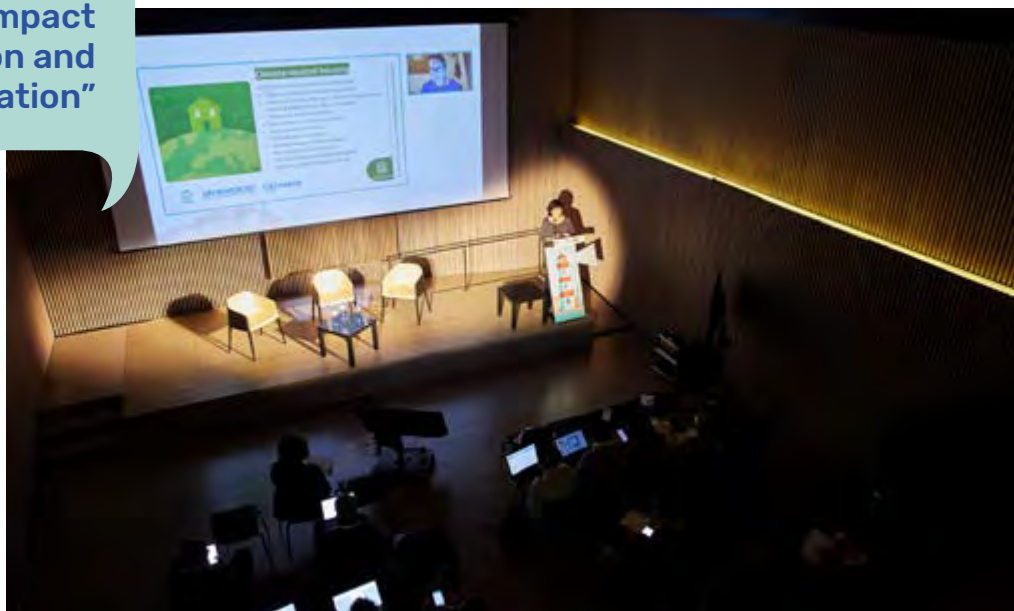
These examples show the need to “devise national strategies, guidelines and agreements to minimise the environmental impact of construction and renovation”. The report also argues in favour of increasing social awareness regarding energy saving and efficiency, while suggesting specific measures such as controls over buildings' energy ratings and providing support and incentives for construction or renovation companies to work in accordance with green and circular economy criteria.

REVOLVING FUNDS, LOW-INTEREST LOANS TO ENCOURAGE ENERGY RENOVATION

One of the examples mentioned in the Housing 2030 report is that of the revolving funds used in various countries (such as Austria, Lithuania, the Czech Republic, Poland, Slovenia and Slovakia) to promote and accelerate the renovation or construction of housing in accordance with energy efficiency criteria. The general idea is to offer low-interest loans to property owners and developers to facilitate and accelerate these processes. The funds prevent the need for larger renovations that would result in significant rent increases.

JULIE LAWSON:
“We need to devise national strategies, guidelines and agreements to minimise the environmental impact of construction and renovation”

Julie Lawson, coordinator of the Housing 2030 report



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Local responses: access to housing, a challenge shared by Barcelona with other European cities

“Cities must take back control over the private sector in Europe and worldwide. We must ensure that cities are places where everyone can live in an affordable way.” This was thus expressed by Barbara Steenberg, member of the Executive Committee of the International Union of Tenants (UIT), an organisation that advocates for rent control, stable leases and a halt to evictions. Measures to guarantee the affordability of housing are being intensified in many cities, as shown in the following examples taken from London, Berlin and Paris, as well as Barcelona.

London

London's current housing affordability problems are the result of multiple factors. Some are global in nature and similarly affect other cities in the world, such as the use of housing as a financial asset in international markets, gentrification and tourism. Others are to do with the city's and the UK's own history. The neoliberal measures put in place by Margaret Thatcher, Britain's Prime Minister

RICKY BURDETT, researcher of urban challenges at the London School of Economics (LSE):

“In one of the world's richest cities, 11,000 people are living on the streets”.

between 1979 and 1990, caused a sharp fall in the public housing stock.

London is now facing an additional problem for guaranteeing access to affordable housing: “The city's population is still growing, a unique situation in Europe and the Global North,” explains Ricky Burdett, Professor of Urban Studies at LSE and Director of the research centre LSE Cities, which conducts research on how to address the challenges facing urban environments.

Despite the effects of Brexit, London's population, which currently stands at around 9 million, is still growing and is expected to exceed 11 million by 2060. There are various reasons for

this, including high birth rates among immigrant families, who continue to move to the city and settle in it, and the city's position as the driver of the country's economy. London produces 25% of the UK's GDP.

However, Burdett warns that this wealth "is poorly distributed" and laments that "In one of the world's richest cities, 11,000 people are living on the streets". Up to 28% of London's population is living below the poverty line. Most of the people with the most socio-economic difficulties live in east London, an area whose life expectancy of 77 years is in stark contrast with 84 in the west of the city. These are the people who most struggle to exercise their right to housing in London where, according to official figures published by Generation Rent, the average rent for a two-bedroom flat is £1,500 a month.

In addition, since the mid-1990s, purchase prices have increased more than fivefold, going from an average of £107,639 to £649,367 between 1995 and 2019. According to 2018 Eurostat data, homeowners still make up over 60% of the UK's population.

In view of this, in 2016 the city's current Labour mayor, Sadiq Khan, set the goal of adding 52,000 homes per year to the city, at least half of which (26,000) would be affordable homes.

In its goal of expanding its affordable housing stock, London is also facing the challenge of insufficient and very expensive land. However, according to Burdett, "the city has identified available land in regeneration areas, far from the city centre but with very good public transport links and a diversity of land uses, where a higher percentage of social housing can be built," particularly in east London, precisely where most of the population with the most economic difficulties can be found. A good example of this is Barking, an area in which the City Council has approved plans to build 10,000 new homes.



Ricky Burdett, researcher of urban challenges at the London School of Economics (LSE), during his speech at the Barcelona Housing and Renovation Forum (FHAR).

Ricky Burdett also explains that the regeneration of east London takes advantage of the urban remodelling process carried out for the 2012 London Olympic Games, precisely with Barcelona 92 as its model. At the time, London set itself the goal of ensuring that the residents of these eastern areas would have the same opportunities as those in other parts of the city within two decades after the Olympic Games; i.e. by 2032. Progress towards this goal is still being made and, for example, social and affordable housing already accounts for 52% of homes in the East Village (where the athletes' accommodation during the Olympic Games was located). In addition, the area is being economically revitalised to generate jobs. In short, the goal of increasing the affordable housing stock is linked to other urban regeneration and social and economic cohesion goals.

"The city has identified available land in regeneration areas, far from the city centre but with very good public transport links (...) where a higher percentage of social housing can be built"

FLORIAN SCHMIDT, Councillor for Urban Development of the Friedrichshain-Kreuzberg district:

“The main problem with cities is that we lack the necessary powers to stop gentrification”

Berlin

In Berlin's case, the way to guarantee access to housing basically entails guaranteeing affordable rent. In Berlin, like most German cities, over 80% of the population live in rented flats, and only 20% are homeowners. These percentages are equal at 50% for Germany as a whole, because purchasing is the preferred option in rural areas. The fact that renting is such a widely chosen option can also be explained by the fact that leases are permanent.

In the case of Berlin, which currently has a population of 3.5 million, the rent control system has been in place since the 1970s. That is when the Mietspiegel index was established. The index, which is regularly updated, sets the rent benchmark limits based on the price of comparable homes on the market. This was followed by the addition of a second index in 2015. This is the *Mietpreisbremse* (or “rent brake”), under which new leases cannot exceed the previous benchmark limit by more than 10%. Even more recently, in early 2020, the regional government of Berlin froze the rent benchmark, stipulating that the limits established in 2013 would remain unchanged for 5 years. However, in April 2021 the German

Federal Constitutional Court held this to be unconstitutional on the basis that such a measure could only be ordered by the federal government.

Florian Schmidt, Councillor for Urban Development of the Friedrichshain-Kreuzberg district in Berlin, laments that “The main problem with cities is that we lack the necessary powers to stop gentrification”. This powerlessness affects not just rent regulation but also municipal governments' abilities to fight evictions because of the so-called horizontal segmentation of housing, a growing problem in Berlin. This happens when an owner who has been renting out their property takes it back claiming to need it for their own or their relatives' use, which is one of the exceptions to the rule on the permanent life of leases. But then, instead of using it themselves, they remodel it and split it into several flats, which they rent out separately for more profit.

However, Berlin City Council is putting various measures in place within its powers. One of these is the establishment of resident protection areas in those locations that are most affected by gentrification, using measures to help slow down the sub-division and modernisation of homes to turn them into luxury apartments. In addition, the city has a byelaw against the misuse of housing under which buildings intended to be used for housing may not be put to commercial uses. Similarly, flats are bought for the purpose of using them as affordable rental homes, either pursuant to the pre-emption right or by purchasing them on the open market, through the city's public housing companies.



Florian Schmidt, Councillor for Urban Development of the Friedrichshain-Kreuzberg district.

"I'm not a great believer in regulating the private market: if someone wants to make money out of real estate, they will. My suggestion is to reduce the private part"

Schmidt thinks that efforts should focus on creating a cooperative and public housing stock rather than trying to regulate rent and the rental market, in view of the difficulties involved in launching and enforcing the measures required to intervene in the private sector: "I'm not a great believer in regulating the private market: if someone wants to make money out of real estate, they will. My suggestion is to reduce the private part."

The Berlin councillor believes above all in bringing the city closer to the situation of Vienna, which is thought of as the European social housing capital and in which 50% of the housing stock is public and cooperative. This percentage is currently 25% in Berlin, and Schmidt wants it to reach 50% by 2050.

The Berlin councillor also highlights the civil society initiatives carried out to protect the right to housing. One

of these is the popular vote held in Berlin on 26 September 2021 under the slogan "Deutsche Wohnen enteignen!" [Expropriate German Housing!], in which 56% of voters voted in favour of expropriating over 200,000 flats, 10% of the city's stock, from over 3,000 private housing companies in the city to turn them into social housing. An expert committee must consider for a year how to give effect to the result of the vote. Another initiative is the "200 Häuser" [200 houses] campaign to stop the horizontal division of properties in order to stop tenant evictions.

Civil society and the Administration have also recently driven new initiatives to increase the social uses of public spaces in view of the pandemic, when people had to spend more time at home and in its immediate surroundings. These include, among others, "Pop-Up-Bike-Lines" (roads that are quickly turned into cycle paths for a short time), neighbourhood Parklets (involving the creation of new pedestrian areas in places previously taken up by parking, widening pavements, or expanding temporary play areas in public spaces or outdoor dining areas).

In short, "the context of the pandemic has triggered a discussion on what the city should be like, how public spaces should be used," concludes Schmidt.

56% of voters are in favour of expropriating 200,000 flats in Berlin for social uses

Paris

The region of Paris known as Île-de-France, which includes both the capital and various municipalities around it, has a population of over 12 million and is the part of the country with the greatest social housing needs.

Paris, with its population of 2.2 million, particularly suffers from housing access problems. Almost two thirds of the Paris population live in rented accommodation, with a median rent according to the French Local Rental Observatories network of €24.5 per month/m².

Ian Brossat, the Deputy Mayor of Paris and the person in charge of housing, emergency accommodation and refugee protection policies,

FLORIAN SCHMIDT

“The context of the pandemic has given rise to a discussion on what the city should be like, how public spaces should be used”

considers that the Covid-19 pandemic has highlighted two very different needs. On the one hand, lockdown showed that we need larger homes with outdoor spaces (such as balconies or terraces) to ensure good quality of life at home. “I understand this concern, but in a market economy this means higher prices and, in the end, it seems like a problem for the rich,” he reflects.

IAN BROSSAT, Deputy Mayor and person in charge of housing in Paris:

“The pandemic has shown that people in professions that are key to ensuring people's well-being often can't afford to live in the city”

Ian Brossat, Deputy Mayor and person in charge of housing in Paris.



IAN BROSSAT

"For more than a year Paris has been seeing a drop in rental prices that hadn't been seen in 20 years"

Brossat also notes that "The pandemic has shown that people in professions that are key to ensuring people's well-being (healthcare, care, education and commerce) often can't afford to live in the city". "This must force us to build affordable housing, public housing, to enable people in these social groups to live in the city," asserts the Deputy Mayor of Paris.

In the French capital, a "long-term" strategy to increase the public housing stock was launched in the early 21st century, with the approval of a law requiring at least 25% of new developments to be used for public housing. The percentage of public housing in Paris went from 13% in 2000 to the current 24%. Public rental prices are 3 to 4 times cheaper than private ones.

In order to guarantee access to affordable housing, Paris City Council continues to implement a variety of measures. For example, developers must earmark at least 25% of homes in new residential buildings for social housing, similarly to the measure that has been in place in Barcelona since late 2018.

Another way to do this is to place limits on the rent chargeable for residential properties built on public land. The city council transfers public land for the purpose of building housing, but the rent chargeable for it will be less than half the market price. In addition, since many office buildings are empty as a result of the pandemic and the rise in teleworking, it has been possible to repurpose some of these buildings for social housing.

As to rent control, Brossat notes that in April 2019 the French Government authorised city councils to establish ceilings on rental prices, a measure

that is being applied in Paris and that around 30 other municipalities, such as Lille, want to apply too. Brossat explains that the results can already be seen in Paris: "For more than a year Paris has been seeing a drop in rental prices that hadn't been seen in 20 years".

In France, rent control started as far back as 2012. This is when an initial system started to be applied. Under this, when renewing a lease, rent could only be updated in accordance with inflation, specifically based on the Rent Reference Index (IRL). Later, in 2014, the "ALUR" Act laid down a new system: a ceiling on rent that could only be exceeded by up to 20%. However, this new system was suspended by the courts, and the "ELAN" Act was passed in 2018. Under this Act, which is similar to the ALUR Act, this rent ceiling can only be applied for five years. This is the legislation that the French Government allowed city councils such as Paris City Council to apply two years ago.

Despite this, Brossat warns of the problem of enforcing rent limits, mainly because the power to do so is in the hands of the French Government, which is unable to properly exercise this supervisory role. "Paris is now fighting for the City Council to be able to carry out this enforcement role."

LUCÍA MARTÍN, Councillor for Housing for Barcelona

"Cities have become experimental laboratories in the search for new answers to the housing crisis"

PARIS FINES AIRBNB €8 MILLION

The French capital has also put in place additional measures to reduce and control holiday lets. Since the pandemic, some holiday lets have become rental homes, whose number has increased threefold. This increase in supply has also contributed to the drop in private rental prices, which fell by 4% in 2021.

Tighter sanctions are being imposed on holiday let platforms. In July 2021 the Court of Paris fined Airbnb €8 million. The platform was fined for failing to register in the municipal register the Paris holiday rental flats registered on its website.

In fact, the Housing Europe federation (2021) has highlighted Paris as an example of forceful measures to prevent the excessive proliferation of holiday lets.

Barcelona

Barcelona's housing affordability situation has a very different context to that of Germany or France as a result of the historical shortage of affordable and social housing in Spain (see Section 2.2.).

"Our figures may seem smaller than theirs [*those of Paris or Berlin*], but there are currently over 2,000 public housing homes either under construction or about to start construction, and 80% of these will be rental homes. This is a historic achievement in Barcelona," adds Lucía Martín, Barcelona's Councillor for Housing.

Up to two thirds of these homes will be from public developments, but one third will be built in partnership with other players in the city's social and economic fabric using various collaboration models. One of these is the strategic relationship with private sector companies, such as the joint venture Habitatge Metròpolis Barcelona, which was incorporated in late 2021 and is owned by public and private organisations in equal shares. The other collaboration model is partnerships with non-profit organisations, such as housing foundations and cooperatives, a model that was reinforced in Barcelona in November 2020 with the signing of the agreement between the City Council and these organisations (the ESAL agreement).

Barcelona City Council has also stipulated an obligation to earmark 30% of private housing developments or major renovations for social housing on vested urban land. This measure was proposed by social movements and approved at a full City Council meeting in October 2018.



Lucía Martín, Councillor
for Housing for Barcelona

In addition to new housing developments, there are also initiatives to make private homes available as affordable rental properties, either with the vacant housing acquisition scheme or through the pre-emption right. The City Council has acquired around 1000 flats in this way since 2015, with a total investment of €124 million.

In Martín's opinion, cities have to be "innovative" because they are subject to budgetary constraints and limits on their powers while having to respond locally to residents' problems. "Cities have become experimental laboratories in the search for new answers to the housing crisis." As a result of the Covid-19 pandemic, city centre properties that had been left vacant have been put up for sale, and the City Council has taken advantage of this to buy flats in more gentrified areas that have traditionally had less social housing, a type of accommodation that in Spanish cities has traditionally concentrated in the outskirts.

LUCÍA MARTÍN:

"There is also a greater commitment to accelerating the construction of affordable housing, and to do so using materials that have a lower environmental impact"

Similar actions have been taken in relation to holiday lets. "In Barcelona, the City Council worked hard during the pandemic to acquire vacant holiday accommodation, which is also usually in the city centre, to make it available for use as social and affordable rental homes," through various channels such as grants and subsidies, explains Martín. This has led to the acquisition of 130 homes to rehouse close to 300 people, more than half of whom are

children previously living in substandard housing conditions or in boarding houses.

"There is also a greater commitment to accelerating the construction of affordable housing and to do so using materials that have a lower environmental impact," adds Martín.

She mentions for example the "dotacional" flats [homes built on

public land to meet temporary housing needs] made out of recycled shipping containers in Barcelona City Council's Aprop programme.

In summary, in view of the double social and climate emergency, Barcelona is combining the expansion of the affordable housing stock with the goal of reducing the construction sector's environmental impact. 🌱

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Public housing developments: innovative practices



When traditional housing policy solutions are unable to adequately meet social demand, new answers must be sought. This is why, particularly since the financial crisis of 2008 and the housing emergency that has become a chronic situation since then, many cities and territories in Spain are coming up with innovative solutions in their public housing policies. In this section, we will review some cutting-edge projects carried out in Spain, including Barcelona, Seville and the Balearic Islands, as well as a European model of affordable housing: the city of Vienna.

Barcelona: renovating factories or recycling shipping containers to increase the affordable housing stock

Can Fabra, a renovated factory turned into an affordable housing complex

The Can Fabra factory in Barcelona's Sant Andreu district has been renovated and turned into an affordable housing complex for young people. Gerard Capó, Manager of the Barcelona Municipal Institute of Housing and Renovation (IMHAB), explains that the remodelling was carried out "in the least aggressive way possible in relation to the original building".

Furthermore, the processes used in the renovation of the factory, which is 100 metres long, 15 metres deep and 11 metres high and has two storeys, have reduced the environmental impact of the project. "We have inserted wooden modules, creating a final total of four floors that fit within the framework, inside the original structure," explains Capó.

In addition, as the homes' modules are made of wood, they are much lighter than traditional steel structures, making it possible to insert them into the original structure without touching the original foundations. The very structure of the housing complex also helps achieve good temperature and ventilation conditions.

Another innovative aspect of the Can Fabra renovation is that there are still open spaces inside the building, which are used as communal areas by the various tenants of the 44 homes included in the complex. In fact, residents are already being consulted on how to use these intermediate spaces.

The initiative has received a prize under the Advanced Architecture Awards 2020 for its innovative nature.

The APROP project: reusing shipping containers for local accommodation

The APROP (Provisional Local Accommodation) project uses disused shipping containers to build local accommodation. Furthermore, the methods used in its construction have reduced execution times to between 10 and 14 months, half the usual time of developments carried out with traditional techniques.

The method used is the industrialisation of the construction process, which involves pre-fabricating housing modules in a controlled environment and then moving them to their definitive location for final coupling and assembly. In addition, sustainability criteria are followed, leading to a reduction in waste of 58%. Reusing these materials reduces CO₂ emissions into the atmosphere by 32%. According to Gerard Capó, Manager of IMHAB, "the APROP project combines the need to speed up the construction process with the need to reduce its environmental impact".

These homes have been built with care to ensure adequate accessibility conditions (such as lifts, stairs and thoroughfares) for tenants.

GERARD CAPÓ, Manager of IMHAB:

"The APROP project combines the need to speed up the construction process with the need to reduce its environmental impact"



In early 2022, Barcelona City Council presented the new APROP programme housing complex around the Glòries area, which will include 42 homes for around 100 tenants, supplementing the project launched two years ago in the Gothic Quarter (with 12 homes). Other APROP programme projects are also being promoted in other parts of the city, in the districts of Sant Martí and Sants-Montjuïc.

The Aprop programme's construction method has received a number of local and international awards, most recently from the *European New Bauhaus*, which gives awards to initiatives that foster the ecological transition, economic recovery and the improvement of shared living within the framework of the goals of the *European Green New Deal*.



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Seville: renovating buildings for use as collaborative accommodation

Suelo y Equipamiento de Sevilla (EMVISESA) has developments with a total of 22,000 homes housing 60,000 people. Most of their tenants own their flats, but there is “an increasing amount of renting,” with 2,800 flats already under leases. Felipe Castro, Managing Director of EMVISESA, explains it.

The new proposed plan for the city, which has a population of almost 700,000, is to create 3,000 new affordable homes with a €300 million investment. But, just like Barcelona, the Andalusian capital faces a land shortage problem.

This means that, without giving up on developing new homes, for example by repurposing land from former industrial areas for residential use, the city is

focusing more and more of its efforts on renovating its existing stock, as explained by the Managing Director of EMVISESA.

One of Seville's most innovative experiences is the promotion of collaborative accommodation in renovated buildings forming part of the system for the protection of people with socio-economic difficulties in order to meet the housing needs of various groups: people who have been evicted or are otherwise in a situation of residential exclusion, immigrants, people who have lost the use of the family home after a divorce and suddenly find themselves in a situation of vulnerability, young people under 35 struggling to access housing, and more. In addition, collaborative accommodation is also linked to the need to guarantee accommodation for other groups, such as over-55s, students, research staff, elite athletes and others.

FELIPE CASTRO, Managing Director of the Seville public housing company:

“We are trying to create a public mesh of collaborative accommodation based on the consolidated city”

The diversity of profiles represented in these homes also makes it possible to create spaces for social exchange. “We are trying to create a public mesh of collaborative accommodation based on the consolidated city by creating a social exchange structure that can at the same time act as local neighbourhood facilities”. The buildings containing these homes also usually include small social spaces that supplement the city's civic centres.

By late 2021, Seville had already embarked on the process of carrying out its first pilot test of this collaborative accommodation model, the RUE32 project in the Sevilla Este neighbourhood, which includes 32 homes that will be fully publicly managed. Based on this initial experience, Seville City Council and EMVISESA wish to invest €45 million in 516 collaborative accommodation units all over the city.

As explained by Felipe Castro, these actions supplement other EMVISESA programmes, such as the housing acquisition and renovation programmes. In fact, the aim is to create this collaborative accommodation precisely from the renovation of flats acquired by the public housing company.

Flat exchanges with individuals, particularly the elderly, and their renovation for public rental

One of the options in the acquisition programme is to acquire homes through swaps with individuals, for example with elderly people who own a home that they don't need or that doesn't meet their requirements as to accessibility and comfort. “They have an asset that can

Felipe Castro, Managing Director of the Seville public housing company, during his speech at the Barcelona Housing and Renovation Forum (FHAR)



be useful to us. These homes can be added to the municipal stock, and we can offer them other accommodation if they need it,” explains Castro.

Seville is now facing both an ageing population (1 out of every 5 residents is over 60) and an ageing housing stock, with flats that often lack a lift to give easier access to the elderly or people with reduced mobility, who may find themselves trapped at home without the ability to go out. As a result, Castro thinks that acquiring and renovating these flats in order to use them as public housing, while rehousing these elderly people in other properties that are better suited to their needs, is a good alternative for the Administration.

He also advocates taking advantage of public buildings to increase the affordable housing stock, as many cities have old schools, hospitals, etc. that are no longer in use and could help achieve this goal.

Balearic Islands: a paradigm shift in housing development and public tenders

In the words of Cristina Ballester, Managing Director of the Balearic Housing Institute (IBAVI), the Balearic Islands are seeing “a paradigm shift in public housing” while increasing the public housing stock. Between 2019 and 2022, the number of homes in the public system will have increased by over 1000, a rise of 64%.

IBAVI is bringing its housing policies into line with various UN Sustainable Development Goals (SDGs) for 2030 relating not just to the guarantee of the right to housing but also to the need to minimise the climate impact of new developments and improve buildings' energy efficiency levels. According to Ballester, “We don't live in a house: we live in an ecosystem”.

The Director of IBAVI explains that its housing developments are following a model of “low environmental impact architecture” based on the concept of “comprehensive sustainability”. In other words, environmental criteria are taken into account during the entire construction or renovation process from the acquisition of the land or home to be remodelled to the handing over of keys to tenants. A home construction model that minimises CO₂ emissions or water consumption is promoted. The

CRISTINA BALLESTER, Director
of the Balearic Institute of
Housing

**“We don't live in
a house: we live
in an ecosystem”**

model also ensures that the buildings themselves are designed with better thermal insulation and ventilation.

According to the Director of IBAVI, there is a link between saving and improving energy efficiency on the one hand, and fighting energy poverty on the other: “If families have to pay less for their energy supply at home, they have a higher disposable income, which means they will be less stressed and enjoy better health, with fewer defaults of payment”.

In addition, priority is given to sustainable materials and local resources when building housing developments. In the Balearic Islands, these include, among others, *marès* sandstone (a type of sedimentary

rock that can be found in the area), Neptune grass (a sea plant), wood and compressed earth blocks. In addition, using local and zero-kilometre materials in housing developments helps revitalise the local economic fabric. Furthermore, circular economy processes to minimise waste are encouraged.

Together with environmental factors, other social criteria to guarantee people's health and well-being are also taken into account, including the gender perspective, as the design of the buildings takes the demands of various groups of women into account. One of the most common such demands is adequate lighting and avoiding dark spots where there is a higher risk of gender-based violence.



Cristina Ballester, Director of the Balearic Institute of Housing, during her speech at the Barcelona Housing and Renovation Forum (FHAR).

In public housing tenders, the financial bid is worth 10 points, and the rest is for social and environmental criteria



This new paradigm of housing policies is reflected in the form of social clauses in the tender specifications of public housing developments. Under one type of clause, real estate companies committed to projects aimed at fighting the housing emergency are awarded extra points. Another type awards more points to companies that use green energy throughout the construction period, and yet another gives points to companies that make

additional efforts to treat waste beyond the minimums required in the tender specifications.

The Director of IBAVI explains that, in tenders, the financial bid is worth 10 points and the rest of the score is for social and environmental criteria, a concrete and tangible manifestation that shows how, in public housing developments in the Balearic Islands, strictly economic values are giving way to new values in line with the SDGs.

The local sea plant Neptune grass is one of the materials used in a public housing development

Formentera alone accounts for 7,650 of the 55,795 hectares of Neptune grass on the Balearic Islands' seabed. This native marine plant has been used as insulation in the "Life reusing Posidonia" project under which 14 social homes have been built in Formentera. The project combines an appropriate use of this plant – taking account of its value to marine ecosystems – with other local and sustainable construction materials (such as wood, marès sandstone or handmade bricks). Construction materials were only obtained from other islands, such as Mallorca, when strictly necessary. This project has achieved a significant reduction in the construction's ecological footprint (50% less energy used in the building process, 75% less energy used during the home's useful life, 60% less water consumption, and 50% less waste production). The project has received several European and international awards including, among others, the 2017 *Green Solutions Awards* and the 16th Spanish Architecture and Urban Planning Biennale in 2018.



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Vienna: the European social housing capital

“Vienna is one of the world's public and social housing capitals,” asserts Maria Vassilakou, the first Green Party deputy mayor of Vienna and in charge of the municipal Urban Planning Department during her term (2010 and 2019).

Over 60% of people in Vienna live in public or cooperative rental homes

Over 60% of Vienna's 1.8 million inhabitants live in public and social rental flats developed either directly by the Administration or by limited-profit housing associations (LPHA) through the cooperative model. Of the city's 990,000 homes, more than 40% are rent-controlled. Half of these belong to the Administration, and the other half to the LPHA.

Vienna's leadership in terms of housing and urban planning policies can be explained by historical reasons. The city started undertaking social housing programmes more than a century ago, starting to build urban neighbourhoods with community spaces and facilities to ensure their residents' well-being. According to Maria Vassilakou, currently Executive Director at the consulting firm

MARIA VASSILAKOU, urban policy consultant in Vienna:

“A good city is a city that we live in because we want to, not because we have to”

Vassilakou Urban Consulting – Vienna Solutions, the city has continued to pursue and update this goal to the present day. “Vienna is now a pioneering city in the promotion of passive housing,” which makes the most out of natural resources and reduces energy use and its associated financial costs.

There are still factors pushing the city to promote affordable housing policies. These include, among others, the fact that the city acquires 25,000 new residents each year. In order to respond to needs as they arise, the

Maria Vassilakou, urban policy consultant in Vienna, during her speech at the Barcelona Housing and Renovation Forum (FHAR)

city has designed the *Smart City Wien* strategy, which lays down the main lines of action to be followed by urban policies until 2050.

The strategy envisages an average development of 7,000 new homes per year. To achieve this, it has a municipal budget of over €500 million, as well as an active land policy. Vienna City Council created a new land classification for subsidised housing in March 2019. At least two thirds of each new residential development built on land in this new category must be used for public and social housing (*Housing Europe*, 2019).

Public tenders for the award of public housing development contracts combine several of the criteria for this global city strategy: social and economic sustainability, and architectural and ecological quality. Implementing housing policies also requires a governance system that takes into account and coordinates all the players involved in this area (such as the Administration, housing associations, contractors, builders, and the city's residents themselves).

The Smart City Wien strategy aims to ensure that Vienna remains a benchmark in the formation of healthy and sustainable urban models. This results in the creation of fully accessible green spaces near the resulting homes, with areas that can be used in many different ways. The homes are of the exact same quality regardless of whether they are public or sold on the free market, and care is taken to ensure that they conform to high energy efficiency standards. The Eurogate neighbourhood in Vienna, the most highly populated European neighbourhood 100% of whose homes



comply with passive standards, is a good example of this.

As to urban mobility, the city is also carrying out pioneering projects. For example, the Bike City building in the Austrian capital contains wide lifts for bicycles and balconies for storing them. There are also car sharing programmes, but the buildings do not have garages for cars.

In addition, collaborative housing projects whose design is fully decided by their future residents, in terms of both their various floors and their communal areas (e.g. cafés, shared kitchens, conference rooms, community vegetable gardens, etc.), are currently being promoted. Under the rules governing community life, future speculation with the price of these homes is prohibited, and their affordability is protected forever.

In short, as Maria Vassilakou explains, Vienna is governed by the following maxim: "A good city is a city that we live in because we want to, not because we have to". 🏡

“The best price control is achieved with a stock such as Vienna's”

ALEJANDRO INURRIETA,
economist and housing expert

With a public and social housing stock as large as Vienna's, where it accounts for almost half of the city's residential stock, “anyone renting a flat on the free market knows they could get a flat just like it nearby for 30% less. You can't make much of a capital gain at this price,” explains economist Alejandro Inurrieta. According to this housing expert, this is “the best possible price control”.

However, he warns that, in the case of Spain, “we're starting from such a low level” that, in order for the size of the public housing stock to have any effect on market prices, you would need 7 million more public and social homes. This increase should be carried out in various ways in addition to through new construction, such as through renovation or by making private properties available and acquiring them for this purpose. For this reason, the former President of the Spanish Public Rental Company does support regulating private rental prices in Spain while action is taken to increase the affordable housing stock to get closer to European levels.



06

Public-private partnerships for the development of affordable housing



The private sector's involvement in the development and funding of affordable housing is one of the good practices mentioned in the *Housing 2030* report produced by the United Nations and the Housing Europe federation. In Spain this is particularly necessary in view of the serious shortages in this field, which cannot be reversed with public budgets alone.

According to estimates from municipal sources, 90,000 public and affordable homes are needed in Barcelona and its metropolitan area alone. To address this huge challenge, Barcelona City Council is promoting new public-private collaboration mechanisms to increase its below-market-price residential stock. As explained below, one of the most noteworthy of these is the joint venture Habitatge Metròpolis Barcelona (HMB).

JAVIER BURÓN, municipal Manager of Housing in Barcelona

"We believe in strategic partnerships and alliances: in co-investing, co-deciding, co-managing..."

Habitatge Metròpolis Barcelona, an innovative joint venture for the development of affordable housing in Spain

In the joint venture Habitatge Metropolis Barcelona (HMB), the public and private sectors will share responsibility in equal shares for the development of affordable housing, specifically the construction of 4,500 rental flats – half of them in Barcelona and the other half in other metropolitan towns. The number of affordable homes to be built by the new joint venture in Barcelona is nearly a sixth of the number to be developed by the Barcelona Municipal Institute of Housing and Renovation (IMHAB) through all its programmes, which means that HMB's developments must form part of a much wider action plan.

Half of the public holding in the joint venture is held by Barcelona City Council and Barcelona Metropolitan Area (AMB), which have invested the same amount of capital in the company (25% each). In the City Council's case, the capital

contribution comes solely from an injection of public resources. In the AMB's case, the intention is to combine contributions of financial resources with contributions of land. The private half is held by the companies Neinor and Cevasa, chosen by public tender. Their main contribution to the company's capital will be financial resources.

Javier Burón, Housing Manager at Barcelona City Council and one of the main promoters of this joint venture, wholeheartedly believes in the need to promote this kind of project to create synergies between the public and private sectors and foster their joint responsibility in the expansion of the affordable housing stock: "We believe in strategic partnerships and alliances: in co-investing, co-deciding, co-managing..."

However, he also admits that establishing this company has been a lengthy and complex process that has required the traditional "lack of trust" between the public administration and the private sector to be overcome. In fact, the project was approved over five years ago and the company was incorporated as far back as 2018, although with a 100% public holding while a private partner was being sought. Preliminary market consultations started to be carried out that same year in order to assess the technical conditions to be included in the tender to be subsequently put out to select the private partner. The first tender carried out with this goal was in 2019, but there was no award. The

BORJA GARCÍA-EGOTXEAGA,
CEO of Neinor Homes:

"The company will work because both the Administration and the private partners are certain that we need to make it work"

new tender was not made until 2020, this time successfully.

This process led to the award of the contract to the companies Neinor and Cevasa, which have created an *ad hoc* company, NiCrent, for their involvement in the joint venture.

Borja García-Egotxeaga, the CEO of Neinor Home, which represents Habitatge Metròpolis Barcelona's private partner, explains that one of the reasons the company decided to get involved in this joint venture was the need to adapt to society's demands. "In the current context, making money is necessary, but not enough, to ensure the survival of a company," explains the CEO of Neinor.

In his opinion, it is increasingly important for companies to act according to principles (*Environmental, Social, Governance*) ESG; in other words, that they include environmental, social and governance aspects in their operating dynamics. He explains that this is why Neinor supports the move from a "traditional property development model to a different type of company

that is more modern and collaborative and integrated in society". As part of this business strategy, Neinor took an interest in HMB's project because "it is innovative" and adds an "important social dimension" to its activities.

He believes that, as a private partner of HMB, his company will now be able to bring to society the experience and knowledge of his team, which includes over 300 people specialising in the various fields required for the development of affordable housing including, among others, market analysis, architecture, engineering and law. As for Cevasa, the company that Neinor has partnered with to form part of HMB, he explains that it has greater expertise in the field of rental housing management.

Borja García-Egotxeaga acknowledges that creating a joint venture with equal private and public holdings is "risky and brave". But he is convinced that the project has a future: "The company will work because both the Administration and the private partners are certain that we need to make it work".

Borja García-Egotxeaga from
Neinor Homes, and Laia Forné
from La Hidra Cooperativa



The first phase, the development of 600 affordable homes, has already started

Neinor and Cevasa made their first capital contribution to the joint venture – €12 million – towards the end of last year. The company is currently already capitalised to carry out the first phase of the project, which envisages the construction of 600 homes out of the total 4,500 planned. In fact, construction has already started on several affordable housing developments forming part of this first phase. In Barcelona, they are in the following locations:

- .. La Marina del Prat Vermell (Ulldecona 16-24), in the Sants Montjuïc district (65 homes planned).
- .. Casernes de Sant Andreu (Passeig de Torras i Bages, 136-138), in the district of Sant Andreu (112 homes).
- .. La Sagrera (Gran de la Sagrera, 52-58), in the district of Sant Andreu (106 homes).

In addition to this, several developments are also in progress outside Barcelona, in other towns in its metropolitan area, such as Sant Boi de Llobregat and Montgat. Once the first 600 homes have been completed, the plan is to build the rest in successive phases until the goal of 4,500 is reached. More specifically, the plan is to finish the second phase with 1,500 homes, the third phase with 3,000, and the fourth and last with 4,500 homes.

The resulting flats will have an average surface area of 70 m², and most of them will have a price of around €7/m², less than the maximum of €8.95/m² set for rented social housing in Catalonia. The average price on the free market is currently more than twice this: between €14 and €15/m² in Barcelona.

As to the profiles of the people who are to live in these homes, Burón clarifies that “The company promotes affordable rent for members of the middle and working classes who are perfectly integrated in society but suffer from a mismatch between wages and rental prices”.

JAVIER BURÓN,

“The company promotes affordable rent for members of the middle and working classes who (...) suffer from a mismatch between wages and rental prices”



The governance system

The company's governance system, whose design was only just being finished towards the end of 2021, is based on the following four bodies and roles: the Board of Directors, which will be the company's governing body; a monitoring body in charge of the company's day-to-day management; an independent advisor in charge of achieving consensus whenever the public and private partners disagree on something; and a *controller* for the Administration to monitor the management of the company, whose cost will be borne by the private partners.

As Burón explains, the governance system is designed to "promote the search for agreed solutions between the public and private partners, which is what all the participants in the project want". In spite of this, it includes some roles, clauses and control systems to overcome any problems that may arise. One of these is the role of independent advisor. However, there is also an "ultimate safeguard clause" under which public shares may never go into private ownership although the reverse is allowed. "In other words, if, against all the parties' expectations, the public-private relationship fails, the company could go back to being fully public," explains Burón.

Burón mentions as a long-term challenge in the company's governance the need to make it easier for tenants themselves to get involved. One of the proposals to achieve this is for the company to float on the stock exchange, with an option for tenants to buy shares at a low price. A way to do this could be, for example, to reduce the public and private holdings (from the current 50% holdings to 40%) to make the remaining 20% available to members of the public, mainly the tenants of the HMB homes themselves.

Burón acknowledges in any case that the project needs to be more mature before tenants can become involved in the governance of the company. The most immediate challenge is to consolidate and recapitalise the company in order to carry out the successive phases of the project to achieve the goal of building 4,500 affordable rental homes.



First image: Javier Burón, municipal Manager of Housing in Barcelona.

How to continue to increase public-private partnerships by overcoming habits and adverse factors

It is thanks to tipping the scales towards public-private collaboration opportunities and overcoming adverse factors that the Habitatge Metròpolis Barcelona project has succeeded, and this is also what should make it possible to continue to increase this type of partnership in the future.

What adverse factors need to be overcome? Laia Forné, a sociologist and member of the coordination team at La Hidra Cooperativa, which operates in the field of urban transformation to guarantee the right to the city, warns that we must overcome the habits of the public-private relationship model that has been gradually developing all over the world since the 1980s as a result of the neoliberal wave. In Forné's opinion, "the type of public-private governance system operating in public housing policy that has gradually developed has favoured a monopoly by large development companies, as well as the loss of public land and housing and its use as a commodity". In the case of Spain, neoliberalism coincided with the transition to democracy, aggravating the public and social housing shortages left over from the Franco dictatorship. The La Hidra Cooperativa spokeswoman notes that the neoliberal model was also clearly seen in Spain during the real estate boom (1997-2007).

Academically, the typical public-private relationship model of neoliberalism

LAIA FORNÉ:

"We must fight the belief that social housing can only be created by partnering with large funds and developers. There is no such rule"

is known as "parasitic" in that it is characterised by the taking of public resources by the private sector (Theodore *et al.*, 2009). The opposite model is the "symbiotic" model, a model based on a relationship of mutual collaboration between the public and private sectors aimed at achieving public-interest goals, such as the development of affordable housing. The two sectors thus share the risks and benefits entailed in the implementation of housing policies.

What we now need to do is redefine this collaboration model to move from a parasitic to a symbiotic model. La Hidra spokeswoman Laia Forné believes that the new public-private partnership model must avoid the decapitalisation of the State and prevent social housing from losing this classification. According to economist and housing expert Carme Trilla, 258,000 social homes have been declassified in Barcelona since the mid-20th century (CTESC, 2021).



TABLE 1. RISKS ENTAILED IN THE PARASITIC MODEL AND OPPORTUNITIES PROVIDED BY THE SYMBIOTIC MODEL IN THE PROMOTION OF PUBLIC-PRIVATE RELATIONSHIPS TO INCREASE AFFORDABLE HOUSING

Parasitic model (risks)	Symbiotic model (opportunities)
Lack of trust in each other	Relationships of equality, shared responsibility and mutual trust and commitment
Short-termism	Long-term vision
Deceptively cheap offers that end up causing delays and high cost overruns	Innovative and agile solutions
Lack of control over execution and quality assessment, and risk of corruption	Investments with a social impact that achieve public goals and fulfil the social function of ownership
Sale of public properties	Permanent affordable rental housing, with land ownership always remaining in public hands
Maximum profit	Private parties accept limited profit in exchange for lower risk
Asymmetry in the information shared, lack of transparency and unethical behaviour	Collaborative governance revolving around all its players: tenants, workers, suppliers, etc.
No risk transfer: nationalisation of loss, and privatisation of profit	Investment efforts, risks, costs and profit are shared equally

Source: Table based on the one shared by Javier Burón, Manager for Housing at Barcelona City Council, during FHAR 2021.

In Forné's opinion, moving away from the parasitic model requires a new management model "with strong public leadership" that also benefits from greater involvement by social promoters and other members of the local economic fabric rather than just large companies. "We must fight the belief that social housing can only be created by partnering with large funds and developers. There is no such rule," she explains.

This model should aim to achieve affordable rent against the traditional culture of home ownership that is still deeply rooted in our country, focusing on renovation as opposed to new construction. Forné also believes on adding new homes to existing blocks by building new storeys. According to a recent study carried out by La Hidra for the IMHAB, in the neighbourhood of Poble Nou alone 2,229 affordable homes could be built by adding storeys without acquiring new land.

According to the sociologist, the criteria that should govern the new symbiotic relationship model can be summarised as follows: greater transparency, with assessment and monitoring mechanisms and social indicators; a greater redistribution of resources so as to avoid favouring only large developers and investment

funds over the local economic fabric, which should be more involved; and greater participation by including members of the public in the affordable housing stock's management bodies.

Javier Burón explains that other needs must be met in order to move towards the creation of symbiotic public-private partnership models such as the one followed by Habitatge Metròpolis Barcelona: "You need a national legal and tax regime that defines and regulates joint ventures as regards their governance system, how capital entries and exits are regulated and other factors in order to make them easier to replicate". In Burón's opinion, this lack of a national framework has made it difficult to manage the model in Barcelona, which he describes as "experimental".

According to economist and housing expert Alejandro Inurrieta, this joint venture model "could be implemented in other Spanish cities with populations of over 100,000, such as Valencia, Bilbao, Palma or Seville, provided that the political will to do so is there". Burón also mentions the possibility of extending the collaboration model to other facets of housing policy, such as renovation or the management of affordable rental flats.

JAVIER BURÓN:

"You need a national legal and tax regime that defines and regulates joint ventures (...) to make them easier to replicate"



Javier Burón during his speech at the Barcelona Housing and Renovation Forum (FHAR).

Anna Gener, CEO of the real estate consultancy Savills Aguirre Newman, is of the opinion that “this is a good time” to improve public-private partnerships in order to increase the amount of affordable housing. “The public and private sectors are putting aside their differences and have reached some agreements that provide a good starting point for working together.”

On the one hand, she thinks the two sectors agree to a great extent on the need to develop more affordable housing to try to move towards achieving European levels, as most of the players involved believe that the public and public-private development routes complement each other rather than being incompatible.

She also notes that the two sectors generally agree on allocating most of these homes to rental: “In Spain, the little investment made in social housing has until now been aimed at selling, and what really works is renting, because that is what makes the housing stock flexible, meeting the needs of those who need it the most.”

In Gener's opinion, the aspects on which the public and private sectors have agreed make it easier to establish public-private partnerships in this regard. The private sector can provide funding to carry them out in a way that supplements public budgets. It can also provide “knowledge and experience in the development and management of the rental housing stock”. She admits that there are few companies in Spain with a certain amount of proven experience in the management of rental housing, but this is precisely why she believes that the experience of those who have done so is “valuable”.

ANNA GENER, CEO of Savills Aguirre Newman:

“The public and private sectors are putting aside their differences and have reached some agreements that provide a good starting point to work together”

She considers that, due to their experience in the world of investment, certain companies are more likely than others to want to get involved in public-private partnerships. In her opinion, those that are most likely to do so are institutional investors looking for low risk, with a long-term vision rather than looking for immediate profit, and that are happy with a more limited return on their investment. This is precisely the case of Neinor and Cevasa, Habitatge Metròpolis Barcelona's private partners.

“They're usually private players who manage the funds of small savers (such as insurance companies or pension funds). They are risk-averse because they are investing people's life savings,” explains Gener, who believes that these institutional investors provide the Administration with extensive choice when it comes to seeking new private partners to increase the affordable housing stock.

The private sector also urges the Administration to focus its actions on three aspects in order to facilitate the construction of affordable housing developments: the contribution of land, the injection of public resources and the establishment of a framework to provide legal certainty and facilitate these collaboration models.

The CEO of Savills Aguirre Newman laments the lack of political agreements in this area lasting beyond the electoral mandates in which they are concluded:

Anna Gener during her speech at the Barcelona Housing and Renovation Forum (FHAR).



“The real estate production cycle is very long, longer than electoral mandates. It is often interrupted or affected by legislative changes that somehow mean that what was originally agreed never comes to fruition. And this is what we should be avoiding.” She therefore urges the representatives of the various political parties to reach an agreement in this area: “Housing is such a serious matter that a 'State pact' [a Government Agreement between the ruling party and the opposition] should be reached”.

Economist and housing expert Alejandro Inurrieta asserts that “we need a “State pact” to establish a minimum consensus on affordable housing expansion targets that is binding on both public and private players”. He makes a few proposals to be taken into account in the debate required to reach such an agreement, which should be discussed by the various political forces, the public authorities and the players in this sector.

Firstly, it should envisage the creation of “a powerful statistical framework” for housing matters. According to Inurrieta, there are currently “serious shortages” in this regard that are precluding the proper planning and deployment of housing policies. He provides the following example: In the absence of a system under which socio-economic data can be cross-referenced with real estate market prices by region, “stressed” rental areas (*zones tensionades de lloguer*) cannot be accurately defined. He believes that “the statistical apparatus is quite a bit more powerful” in Catalonia than in Spain as a whole thanks to INCASÒL's register of lease performance bonds but that we must continue to make progress in this area.

Secondly, we should be working on “rental only” public housing. In the expert's opinion, officially protected housing (HPO) for purchase “needs to disappear”, as it is designed more to favour the construction sector's interests than to protect citizens' rights. In his opinion, this model “goes against fairness, because there has always been a tendency to award these homes to the middle classes”. Furthermore, many people cannot afford the purchase price of HPO homes,

in spite of being lower than the market price, unless they have a certain amount of savings.

Thirdly, a target percentage of affordable rental housing to be achieved in Spain should be agreed on. Although housing policy matters fall within the remit of regional governments, Inurrieta asserts that this is not incompatible with the establishment of a national target to be contributed to by each regional government pursuant to its duties.

Fourthly, he believes in guaranteeing decent maintenance for public and social housing. “People living in public rental flats have the same right to decent living conditions as those living in flats rented on the open market. This is why it is key to renovate the public housing stock and maintain it in good condition.”

Both the public authorities and the private sector should respect the minimum agreements reached. Such pacts would thus help create a political framework that was more conducive to achieving a symbiotic public-private partnership model to increase the supply of affordable housing. 🏡

ALEJANDRO INURRIETA,
economist and housing expert:

“we need a 'State pact' to establish a minimum consensus on affordable housing expansion targets that is binding on both public and private players”

07

Public-community partnerships to increase affordable housing



Public-community partnerships include a wide range of relationships between the Administration and a variety of social groups and agents. On the one hand, there are relationships between public operators and social promoters, such as housing foundations and cooperatives. And, on the other, the Administration can forge relationships with other groups and categories of people that defend this social right or promote community initiatives to facilitate access to housing through formal or informal organisations. This section provides examples of these two large categories of public-community partnership to increase affordable housing.

Partnerships with social housing developers

In our closest environment, partnerships between public players and social promoters are a phenomenon that is still in its infancy, unlike in other European countries such as Austria or the Netherlands, where they are much more common.

Partnerships with social housing developers can involve very different types of organisations. The two main types are cooperatives and foundations, but they each in turn include many different models.

One of the most common cooperative models is assigned-for-use housing.

Under this model, residents must be members of the cooperative that developed the building and have previously acquired a share in its capital. Their membership entitles them to live in one of the flats in the building, but they do not own that flat, which means they cannot sell it if they move out. If they move out, they recover the amount of their stake in the share capital, which is then offered to another person who can become a member of the cooperative. This prevents cooperative flats from being the subject of speculation and ensures they always remain affordable.

As well as acquiring the applicable part of the share capital, tenants pay rent well below market prices. For example, in La Borda's assigned-for-use homes, the first assigned-for use residential cooperative building completed in Barcelona in 2018 on municipal land, in the Can Batlló complex in the district of Sants, the average rent is €500 per month. New members must pay an initial membership fee of €200, as well as a capital contribution of €18,500 per household, as shown on the La Borda website.

Another type of cooperative housing (or co-housing) model is one created to meet the specific accommodation needs of specific groups, such as the elderly or people with disabilities, migrants or refugees, or to encourage shared living between people from different segments of society (such as intergenerational shared living). There are also other types, such as "urban masoveries", under which owners allow someone else to use their property for a specified time and the tenants, in return, pay for any agreed renovation works (Celobert, 2014).

Foundations, on their part, do not operate under the cooperative model but are similarly non-profit organisations. They all promote social and affordable rent and can focus their work on different social groups, such as people in housing emergencies and suffering from residential exclusion, women suffering from gender violence, single-mother families, the elderly, people with disabilities, migrants and refugees, etc.



La Borda cooperative housing development façade

In addition to the two main types, the first Tiny Houses projects have started to be promoted in Catalonia. They are mobile and moveable mini-houses built by small social enterprises in accordance with sustainability criteria. Their costs, construction times and prices are generally lower than those of the above models, and they are designed mainly with young people in mind.

The following section shows how Barcelona is playing a leading role in Spain in the promotion of partnerships with the main social promoters (housing foundations and cooperatives) aimed at increasing affordable housing.

7.1.1

ESAL agreement between the City Council and social housing developers

In order to promote partnerships with housing foundations and cooperatives, in November 2020 Barcelona City Council concluded the ESAL agreement with social promoters. Under this agreement, Barcelona City Council will transfer public land to foundations and cooperatives to build up to 1,000 social homes over the next few years, for an estimated number of residents of up to 3,000. The social promoters, for their part, undertake to build and manage those homes and to guarantee access to them at an affordable price.

Specifically, what the Administration is granting is a long-term building lease on the land, in this case for 99 years. "In order to prevent the long-term decapitalisation of the public sector, the City Council retains ownership of the land," explains Vanesa Valiño, Cabinet Chief of the Councillor's Office for Housing of Barcelona City Council. Since cooperative

housing projects can also be carried out through renovation, the right of use is sometimes granted over municipal buildings instead of public land.

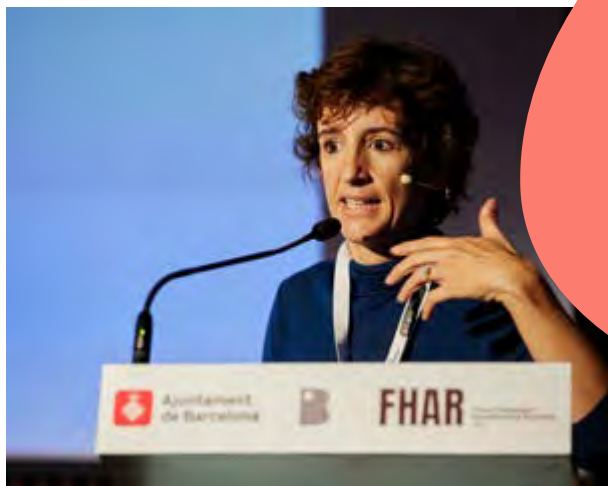
The agreement with the IMHAB has been signed by various social housing development representatives of the city: the Association of Social Housing Policy Managers (GHS), the Federation of Housing Cooperatives of Catalonia, the Coordinator of Housing Foundations of Catalonia (COHABITAC) and the Cooperative Housing Sector Association of the Solidarity Economy Network of Catalonia.

Of the thousand or so homes to be created under the ESAL agreement, 40% will be under assignment-of-use arrangements, and 60% will be affordable and social rental homes. However, they will all have a common goal: "We want to promote new shared-living models," explains Valiño.

In addition, two plots of land have been earmarked for the development of housing with specific shared-living models: one for a co-housing retirement building as insisted on by the organisation Can 70-Sostre Cívic, which has been fighting for some time for cooperative housing that facilitates shared living for a group of elderly people who wish to live in this way, and one for people with learning disabilities.

VALIÑO, Chief of Staff of the Councillor for Housing at Barcelona City Council:

"we want to promote new shared-living models"



VALIÑO:

“Another major goal of the ESAL agreement is to reduce the environmental impact of housing developments”



“Another major goal of the ESAL agreement is to reduce the environmental impact of housing developments,” explains Valiño. Under the agreement, the resulting homes must have the highest energy rating (A or B) and be built out of more sustainable materials. In fact, many of the cooperative homes built so far have used wood in their construction. In addition, industrialisation techniques have been used, making their construction or renovation quicker and more efficient and easier to monitor.

In addition, the social promoters have successfully met one of the requirements of urban planning laws, which was the requirement to have car parks in blocks of flats, until Barcelona City Council started an amendment in 2017 to make this legal requirement more flexible. There is now an option not to include a car park. In addition, the financial saving resulting from not including a car park means that cooperatives and foundations can invest more in the quality of the homes or of the communal areas that encourage shared living and interactions between neighbours.

Public housing development in the neighbourhood of la Llacuna del Poblenou

An agreement based on networking between the City Council and social promoters since 2015

The process that finally led to the conclusion of this agreement started in 2015, when the Barcelona Social Housing Council, the city's highest participatory body in this field, was boosted to promote public-community collaboration. The Cooperative Housing Board has worked on this issue within the framework of the Social Housing Council. This is composed of representatives of cooperatives and foundations from the sector with an increasing degree of participation. It also includes ethical finance institutions – which help fund cooperative housing projects – and local residents.

Since then, and even before formalising its relationship with social promoters by signing the ESAL agreement, the City Council has held various housing-related tenders for housing cooperatives and foundations, more specifically one every year between 2016 and 2019. So far, this has resulted

in the development of 569 affordable homes in the city's various districts.

Valiño explains that these first projects have highlighted a few “limits and shortcomings” that the ESAL agreement aims to overcome. It was found, for example, that the traditional public tender process resulted in lengthy delays in the construction of new developments, which in turn drove costs higher. In view of this, the ESAL agreement now establishes a “more agile” procedure: the best construction or renovation project will be chosen by the institutions representing the social development sector themselves. A designation board composed of City Council representatives and the Association of Social Housing Policy Managers of Catalonia (GHS), which brings together the various parties operating in this area throughout Catalonia, will consider the proposals and confirm the choice made.

The funding of housing developments carried out by cooperatives and foundations

Another hurdle that the agreement aims to help overcome relates to the funding of housing developments. The various parties involved have agreed on a number of funding tools. These include the following, among others:

- .. The City Council will facilitate access to credit through the Catalan Institute of Finance (ICF) and the Official Institute of Credit (ICO). It will also give guarantees for the event of default on more than five mandatory loan repayments.
- .. The City Council will grant subsidies to build the cooperative housing complexes. However, once the loans granted for construction have been repaid, 7% of this subsidy will also have to be paid back. In addition, access to Spanish Government subsidies for this type of development will be facilitated.
- .. The City Council will provide municipal land and buildings without any fees for the entire repayment period of the loans granted to build the housing

developments. Furthermore, there will a 95% discount on the real estate tax (IBI) applicable to these cooperative housing developments. However, at the end of the repayment period, a fee of €1.43/m² for the municipal land or buildings will have to be paid.

- .. The social promoters will have an option to sell 25% of the homes built on public land on land assigned under a building lease in order to reduce the losses of the first few years of development and use. Barcelona City Council and the Generalitat will have a right of pre-emption so that the homes can be used as public housing.

“In order to successfully develop cooperative housing, you need all the ingredients: social fabric, political will, the Government officials...”

According to Valiño, the ESAL agreement is also a leap forward in networking and synergies between the Administration and social promoters and in relation to transparency: “These housing developments are tracked based on a model of joint governability between the City Council and social promoters both during construction and afterwards, in their day-to-day management.”

Valiño concludes that, “In order to successfully develop cooperative housing, you need all the ingredients: social fabric, political will, the Government officials who carry out the technical aspects of the project at the City Council, and so on”.

As a major challenge for the future, he explains that the parties to the ESAL agreement are considering creating a large social housing operator in the city. In fact, the agreement envisages for this purpose that, once they have repaid the loans for the construction of the homes, the cooperatives and foundations will use 50% of their profits to create this large social operator.



Welcome event for new residents of the la Chalmeta cooperative housing development

7.1.2

The need to promote partnerships between the Administration and social promoters

Of the various forms that can be taken by public-community partnerships for the development of affordable housing, collaboration between the Administration and housing cooperatives is one of the main lines of action to be followed. According to Glòria Rubio, legal expert and coordinator of the La Dinamo Foundation, "In order to guarantee this social right, the public sector must stand up for cooperative housing and fight for it to be included in every administration's strategic plans." La Dinamo Foundation was created to promote cooperative housing following the experience with the cooperative block of flats in La Borda, in Barcelona's Sants district.

From her point of view, there are many reasons why this model is in the public interest, and the administrations should therefore encourage it more. She first notes that it precludes real estate speculation because it is "based on the collective ownership" of the block of

flats by the cooperative. "This ensures that these homes cannot be disposed of and eventually sold," she points out.

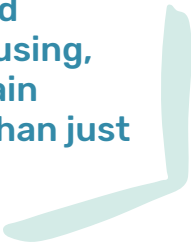
Secondly, as she explains, the cooperative housing model is a participatory model that places "people at the centre of management, decisions and governance" in the process involved in the design, funding and management of shared living in communities, which become the "protagonists".

Thirdly, she notes that a social market *pool* tends to arise around these cooperative blocks of flats, because their tenants tend to source the various services required for home or community life (e.g. energy or food cooperatives, ethical insurance and more) from other organisations in the social and solidarity economy. New partnerships are thus formed around these homes between the various players of the social and solidarity economy, who help each other grow like a "piece of machinery that adds and multiplies".

In any case, the coordinator of La Dinamo acknowledges just now, "not everyone who wants to can access these homes," because there is a limited number of developments and their growth needs to be encouraged. She mentions in this regard two major challenges in addition to the need for public commitment by the administrations. On the one hand, she believes that "in order to build cooperative housing, we need to obtain

GLÒRIA RUBIO,
coordinator of La Dinamo:

**"in order to build
cooperative housing,
we need to obtain
private rather than just
public land"**





private rather than just public land.” Only 2 out of the 35 cooperative housing projects currently being carried out in Catalonia (17 of them in Barcelona) are on private land.

She also supports using some “dotacional” land – land reserved for public facilities by urban planning laws and regulations – to cooperative housing developments. This is already being done in Catalonia to increase the number of public developments and, in Rubio's opinion, the same could be done with the cooperative model.

In order to increase the amount of cooperative housing while preserving the essence of the model, the coordinator of La Dinamo believes it necessary to “define the limits” of the legal and political framework so as to establish the exact requirements to be fulfilled by social promoters. “We must prevent construction and development companies of the neoliberal and capitalist private market from acting as social promoters to sneak in, because such parties acting as social promoters would not be at all helpful,” she concludes.

It was precisely this year, in January, that the first step towards establishing this legal framework in relation to assigned-for-use housing was taken. The Catalan Solidarity Economy Network (XES) and the Federation of Housing Cooperatives of Catalonia submitted a motion for the recognition and promotion of assigned-for-use cooperative housing to the Catalan Parliament, which will be discussed in 2022 by the said body's Commission for Social Rights. This will be the first time that the Catalan Parliament discusses how to promote assigned-for-use cooperative housing. For now, although it is mentioned in the Catalonia Cooperatives Act (Act 12/2025), there is no specific legislation on this model. Affordability and lack of profit are two of the key aspects of the model envisaged in the motion.

Above, Manel Rodríguez from Cohabitac, and Vanesa Valiño, Cabinet Chief of the Councillor's Office for Housing and Renovation of Barcelona City Council; in the middle, Laia Forné from La Hidra Cooperativa; and below, Gemma Tramullas, journalist.

MANEL RODRÍGUEZ
(COHABITAC):

**“limiting the application
of policies to the
municipalities makes us
less effective”**

According to Laia Forné, spokesperson of La Hidra, another factor that can help create a political framework that is more conducive to the creation of public-cooperative partnerships in order to increase the amount of affordable housing is the establishment of “new metrics for public services to measure the value added by cooperative housing projects [*in terms of social impact, creating new shared-living models, etc.*] that are not driven by economic or commercial goals”. For example, the agreement between Barcelona City Council and the Can Batlló Community and Local-Resident Self-Managed Space includes indicators for measuring the social return of all the activities revitalised in this 13,000 m² former factory where the La Borda cooperative housing complex is located. The Solidarity Economy Network (XES) of Catalonia has also promoted community social balance sheets to measure the impact of the various projects promoted by its member entities.

LAIA FORNÉ (La Hidra Cooperativa):

“We need new metrics for public services to measure the value added by cooperative housing projects”

Manel Rodríguez, representative of the Coordinator of Housing Foundations of Catalonia (COHABITAC), adds that it is key to ensure that the debate relating to this political and regulatory framework goes beyond the municipal level, and this is for two reasons. He notes, on the one hand, that the dialogue process embarked on in order to reach consensus such as that of the ESAL agreement in Barcelona entails a great effort and it is not feasible for the foundations that promote affordable housing to negotiate agreements such as this municipality by municipality, particularly if you consider that the foundations forming part of COHABITAC currently have representatives in 110 towns.

He also explains, on the other hand, that the housing emergency goes well beyond the local area and Barcelona city and is affecting municipalities in the first and second urban rings of the metropolitan area. “Limiting the application of policies to the municipalities makes us less effective,” asserts Manel Rodríguez, who is also the President of the Salas Foundation, a member of COHABITAC.

In order to raise these debates to supra-municipal level, COHABITAC, which is a member of the Catalonia Third Sector Round Table, is embarking on talks with the Catalan Association of Municipalities and Barcelona Provincial Council, among others.

COHABITAC is made up of 12 non-profit foundations from the social sector based all over Catalonia that promote affordable housing. They are: Habitat 3, promoted by the Catalonia Third Sector Round Table; the Family and Social Welfare Foundation; the Salas Foundation; the Iniciativa Social Private Foundation; the Habitatge per Tots, Sergi and Mambré foundations; the Factoria de Somnis Private Foundation; the Nou Lloc Habitatge Social Foundation; and the Patronat Santa Creu de la Selva Girona, Foment de l'Habitatge Social and Grup de Qualitat private foundations.

Together, they have a stock of over 3,500 social rental homes all over Catalonia. While highlighting the effort made to reach the current number of social and cooperative homes, Rodríguez still feels that this is not enough. "Building 100-150 homes doesn't help the population as a whole: we have to scale up the model." He believes in following the example of other parts of Europe, such as Great Britain, where non-profit organisations manage large numbers of homes. Other examples to be followed can be found in Latin American countries such as Uruguay, "where it has been possible to extend this model thanks to social organisation and a high amount of public funding, including by regional and national governments," adds Laia Forné, spokeswoman for La Hidra.

Manel Rodríguez (COHABITAC) asks the conventional banking system to get involved in the funding of housing developed by social promoters

Rodríguez sets out four matters that are key to starting scaling up the model in Catalonia. First, more land is needed by social housing developers, including from the private sector, and this must be combined with the challenge of respecting the land and the environment.

He also insists that foundations and cooperatives need more funding, and he therefore makes an appeal to conventional banks: "We need financial institutions to expand their interest beyond funding only private development and giving the usual type of mortgage and to understand that funding these projects will bring them volume in the long term, even though it has to be at a low interest rate."

He also considers it very important to increase public grants and subsidies. In exchange, he accepts that foundations will have to provide a social return for the financial aid received, for example by reinvesting in more affordable housing any financial margin that may arise from the developments managed by them, after paying off the loans taken out to carry them out.

Finally, he points out the need for a more professional-based management of social housing developers: "We need a developer who understands that they are carrying out an industrial activity, just like anyone else who produces an essential product, without speculating or aiming to make a profit." He therefore also calls on professional developers, architects, engineers, etc. to devote their skills and resources to social and cooperative housing developments.

Two international benchmarks of cooperative housing

The Netherlands, European cooperative and affordable housing leader

"We are the European country with the most cooperative housing," says Robin Van Leijen, Executive Director of AEDES, an organisation that represents 310 non-profit social housing developers in the Netherlands, where housing cooperatives go all the way back to the late 19th century. At about 30% of the country's total real estate stock, the Netherlands boasts the highest percentage of social housing in Europe, and the vast majority of it is managed by cooperatives.

Partnerships with private-sector players are also key when it comes to securing funding for social housing in the Netherlands. "We haven't had any direct government subsidies for new construction since 1995," says Van Leijen, explaining that the system is essentially based on applying for low-interest loans from financial institutions, which are then repaid by the housing associations out of the sources of income generated by them.

ROBIN VAN LEIJEN,
Director of the AEDES association (of
social promoters in the Netherlands):

**"We haven't had any
direct Government
subsidies for new
construction since 1995"**

"The backbone of this funding system is the Netherlands social housing guarantee fund," explains the Executive Director of AEDES. This guarantee system is based on a three-tier system (see Table 2). If a housing association is unable to repay its loan, it can resort to the housing association's own guarantee fund first. If this guarantee fund runs out, it can ask the other members of AEDES for help. Finally, the third level is the government guarantee. "But this has never happened," points out Van Leijen.

TABLE 2. GUARANTEE SYSTEM FORMING THE BASIS OF THE COOPERATIVE HOUSING FUNDING SYSTEM IN THE NETHERLANDS

Level 1	<i>Housing Association</i> guarantee fund. Any member who is unable to meet their payment obligations can use this fund.
Level 2	If any member is unable to make the repayments owed on their loan, the other members must support them and fund their debt.
Level 3	Government guarantee. The government backs the guarantee fund. If the necessary resources cannot be obtained from the first two levels, they are provided by the government.

This funding system makes it possible to support an affordable cooperative housing model. In the case of the Netherlands, the people with the worst financial struggles are given priority. In the case of AEDES-managed homes, tenants must pay about €500 per month in rent. This is in a country with an average salary of €4,570 per month and a minimum wage of €1,725 according to official data from 2020.

Another distinguishing characteristic of the co-operative housing system in the Netherlands is that tenants are involved in the management of buildings. Tenants are represented in the AEDES Fund's Supervisory Board and, for example, the renovation of a building would require the agreement of 70% of tenants. The participation culture is well established among tenants, because the organisations that defend tenant rights in the Netherlands are also involved in rent negotiations with owners and the Administration.



Switzerland: participatory housing cooperatives involved with the community

In Switzerland, housing cooperatives also date back all the way to the late 19th century and account for a significant part of the country's housing stock (8%), although less than in the Netherlands. The country has 1,500 housing cooperatives in total, representing over 160,000 households.

Housing cooperatives work very closely with the Administration, particularly locally, but also with the Federal Housing Office. "They are a key part of the housing policy system," explains Mirja Serrao, Chair of ABZ, Switzerland's largest housing cooperative, with close to 7,800 members and a managed housing stock of around 5,000 homes in Zurich and its surrounding area. According to Serrao, "the main support provided to cooperatives by the Administration is land," which is assigned to them under a building lease, as well as financial support in some cases.

The number of homes managed by the ABZ cooperative, which was created in 1916, is particularly noteworthy in a context such as that of Switzerland, where more than 70% of housing cooperatives manage fewer than 100 homes each. It is worth noting that ABZ manages only rental homes. This is not surprising, considering that Switzerland is the European country with the highest percentage of people living in rented accommodation (60%).

As to the rental prices of cooperative homes, the Chair of ABZ explains that they are on average 27% to 36% below market prices. Housing cooperatives also have mechanisms to guarantee the affordability of housing forever and prevent it from being used for speculation. As Mirja Serrao clarifies, unlike the Dutch case, "Swiss housing cooperatives are not mainly aimed at people with economic difficulties

but are for the general population.” Some of them also focus on specific groups (such as the elderly, refugees, single-parent families (with communal areas for their children), etc.).

In addition to ensuring affordable housing prices, cooperatives also aim to create a shared living and community life model around their buildings. As Mirja Serrao explains: “In order to live in one of these homes, you must be a member of the cooperative, which requires you to acquire part of its share capital.” Each member of the cooperative can take part in its decision-making processes relating to matters that affect community life. In addition, tenants in blocks of flats elect the members of a committee to handle the various aspects of social and community life.

Shared living is revitalised by the architectural design of the buildings themselves (with communal areas such as laundries, meeting or function rooms and others). Links between these communities on the one hand, and the residents and social fabric of the neighbourhood where they are located on the other, are also encouraged.

According to Serrao, another criterion that is becoming increasingly important when it comes to promoting cooperative housing is sustainability. These homes are built with sustainable materials, such as wood, and designed for energy efficiency. Furthermore, communities are encouraged to minimise their use of energy and make it as efficient as possible, either by raising awareness or by setting limits to ensure that certain standards are met.

In order to minimise environmental impact, cooperatives try to meet their tenants' housing needs using the minimum possible surface area. In relation to this criterion, Serrao adds that there are rules on the

number of people who must live in each home based on its size, among other reasons to prevent underoccupation and, therefore, a non-optimised use of the homes.

“Most of the funding for these homes is from conventional banks, pension funds, insurance companies and financial cooperatives...” explains the Chair of ABZ. In addition, the housing cooperative movement itself has created some common financial tools “to make it easier to provide the necessary guarantees to be granted these loans”. Serrao explains that, since 2003, the country's main housing cooperatives have been working together as a confederation to resolve their shared funding needs and make their demands to the Administration as a joint body.

It is also worth noting, as explained by Serrao, that “the communities themselves have tools for funding housing-related social, cultural and environmental projects,” which are chosen by the residents themselves in participatory processes. More specifically, they have a solidarity fund, to which tenants contribute CHF 5 per month, in both the local and the national and international spheres. This is how Switzerland supports the expansion of the housing cooperative system both inside and outside the country.

MIRJA SERRAO (ABZ):

“The communities themselves have tools for funding housing-related social, cultural and environmental projects”

7.2

Collaboration between the public sector and the community

Social groups and citizen platforms that defend the right to, or affordability of, housing, residents' associations that get together to build their own homes... These are but a few of the many possible forms that can be taken by public-community partnerships other than a relationship between social promoters and the Administration. This section provides a variety of examples from London, Bologna and Germany.

London: *Community Land Trusts* as an example of citizen self-organisation in the face of the housing crisis

The first example of a community organisation for the promotion of affordable housing is the *Community Land Trust* (CLT). CLTs are formed through the collective organisation of a group of residents of an area to buy land in order to build their homes on it. In a way, this is the opposite of the assignment-of-use model, which is described above. While in the case of assignment-of-use homes the land is public and assigned under a building lease to the cooperative that is developing the building, in CLTs the land is private and owned jointly by all the residents involved. While in the case of assignment-of-use homes the building belongs to all members of the cooperative jointly, in CLTs each home belongs to one of the people involved in the project.

According to the website *Community Wealth*, this model was born in the United States in the 1970s, driven by North American activists involved in the fight for civil rights. It has also started to spread to other parts of the world – in the case of Europe particularly in the United Kingdom and Brussels, where it was implemented well into the 21st century. The model has its own

HANNAH EMERY-WRIGHT,
Manager of the London
Community Land Trusts:

“They are an example of citizen self-organisation in the face of the city's housing affordability crisis”



Example of a Community Land Trust in London.

characteristics in each area in which it is used, but it is always based on joint ownership of land to promote access to affordable housing and to carry out other activities of social and community interest (such as cultural centres, schools, local commerce, etc.). The people in a CLT form a non-profit organisation with rules in place to ensure that both the joint ownership of the land and the affordability of the homes apply forever.

In the case of London, Hannah Emery-Wright, manager of that city's Community Land Trust, explains that CLTs "are an example of citizen self-organisation in the face of the city's housing affordability crisis".

The sale price of houses covered by the London CLT is set based on the average income in the neighbourhood in which they are located. In the developments currently managed by it, this is usually around £30,000 for one-bedroom flats, a third of what they would cost on the open market.

If the homes are ever sold, the rules on price limits agreed within the community must always be adhered to. "Housing

must be truly affordable; i.e. matched to people's salaries, and this must be protected on a permanent basis," states Emery-Wright.

She also highlights these communities' transformative potential: "It's not just about building homes and creating a new block in the city: it's about ensuring that communities remain protected and united."

Developments under the London CLT often include not just homes but also associated services, such as community facilities and shops.

Community organisation is key to operating under the London CLT. The London CLT currently has almost 3,000 members, who are able to give opinions and vote in decision-making processes. A £1 symbolic fee is required to become a member.

It is precisely thanks to community organisation initiatives that funding routes for housing developments can be found. In addition to private funding (from social investors, mortgage loans, etc.), the London CLT has also used European funds, specifically under the *Sustainable Housing for Inclusive and Cohesive Cities* (SHICC) project and the European Regional Development Fund (FEDER). Brexit will put an end to this, but the London CLT still wants to continue exchanging experiences

The first homes under the London CLT were completed in 2016

The first London Community Land Trust (CLT) site was St Clements, in East London. Here, the first 23 homes out of the 252 in total that the CLT wants to promote were completed in 2016. The homes were completed by renovating a former factory. In addition, according to the London CLT website, new homes will be built on adjoining land.

According to the London CLT manager, this initial project, which is now being replicated in other parts of the city, has served to "test the model and redirect the path towards other projects". She explains that residents of Lewisham are developing housing through another CLT project using the community's own funds. The plan is to provide accommodation to 11 families in this part of south London in 2022. Furthermore, there are also other projects for new CLT housing in areas such as Peckham, Brasted Close and Ford, among others.



Emily Marion Clancy, Deputy Mayor of Bologna City Council

Bologna: the influence of citizen demands on housing policy

and best practices with the communities that promote CLTs and other housing alternatives all over Europe.

Another example of public-community partnerships for the promotion of affordable housing can be found in the Italian city of Bologna, in this case due to the influence of social movements and citizen groups on the planning of municipal policies and projects in this field.

In the last decade, "Bologna has become one of the most expensive cities for rentals in Italy," admits Bologna City Council's Deputy Mayor Emily Marion Clancy. According to the statistics portal Expatistan, the average rent in this city is €761 per month for a 85 m² home in an average area. This is surpassed only by some of the Italian cities that are most popular with tourists, such as Milan, Rome or Venice.

It is estimated that 6,000 people in Bologna are living below the poverty line, with no access to suitable housing. In the case of rented flats, the percentage of households falling behind on their rent has risen from 10% to 24% between 2020 and 2021 throughout Italy as a result of the pandemic (Housing Europe, 2021). This is compounded by the shortage of public and social housing. In Bologna's specific case, there

are almost 12,000 public homes, housing 25,000 of the city's 390,000 inhabitants. They are the people with the worst financial difficulties.

Bologna's youth spring into action for the right to housing

Difficulties accessing housing in Bologna have recently led its residents to get organised and carry out a campaign to demand improvements by the City Council to guarantee the right to housing. The campaign has been driven mainly by students and young professionals, with over 2,000 signatures collected for this purpose.

Bologna is a university city and, as such, welcomes close to 35,000 students every year, something that has a high impact on the life of a city. In addition, in Italy young people are one of the groups with the most difficulties accessing housing. The average age of emancipation in that country is 30 years, compared to 26 in the EU as a whole. It is usually impossible for young people to buy a home on their low salaries, and this is happening in a country that, like Spain, has "a strong culture of ownership," explains the Deputy Mayor of Bologna. Eighty percent of the Italian population are home owners, but only 6% are under 35 years of age.

As a result of the young people's campaign, the various political parties

with representation in the City Council discussed how to design a plan to address the city's shortage of affordable housing. Just now, Bologna City Council has the following main priorities with regard to facilitating access to the right to housing: to grow and consolidate the public and social housing stock, particularly for rental; to provide economic and financial support to people who struggle to pay rent at market rates; to prevent evictions; and to start promoting cooperative and collaborative housing solutions.

As to the affordable housing stock, Emily Marion Clancy explains that "The City Council has decided that there will be no option to purchase public housing, which will be for rental only." In order to increase the public housing stock, Bologna City Council has stipulated that at least 30% of homes in all new buildings of more than 20,000 m² must be used as public housing.

The Deputy Mayor of Bologna clarifies that the public and social housing stock will be increased, rather than through new construction, mainly by renovating existing properties in the city, which will also help improve buildings' energy efficiency. Housing acquisition programmes are being fostered in the city by buying flats from the private sector – from both companies and individuals – in order to use them as public rental housing. Another line of action that is being particularly focused on is giving financial support to people struggling to afford their rent.

Thinking about the future, she mentions that the City Council is considering establishing "social agencies for housing" to act as mediators between owners and tenants in order to convince the former to rent their properties to people with socio-economic difficulties, with the City Council providing guarantees for the event of non-payment.

EMILY MARION CLANCY, Deputy Mayor of Bologna City Council:

"The City Council has decided that there will be no option to purchase public housing, which will be for rental only"

Porto 15, the city's first collaborative housing project for people under 35

Porto 15, the city's first cooperative housing project and one of the first co-housing projects in the entire country, aims to meet the accommodation needs of people under 35.

Porto 15 is a collaborative residential building carried out with public funding by recovering and renovating a building in the city's historic centre, in the Manifattura delle Arti neighbourhood, which was part of Bologna's public heritage. The young people who live there were involved in the building's design and planning process, including communal areas for better shared living, and also helped draft the rules governing community life.

This project has been made possible thanks to partnerships with many players, ranging from the young people themselves (who applied to take part in the project and were selected based on their profile and the available places and types of accommodation) to the Administration (both local and national), the cooperative that helps drive the co-housing process (SuMisura) and the real estate company that has renovated the building (ACER).

Based on this initial experience, the City Council is continuing to work on expanding this model to the rest of the city. A change to the city's urban planning regulations to encourage collaborative housing has even been approved.



Authors: Fabio Mantovani



Involving tenants in the governance of rent agreements: the example of Germany

Finally, the third example of public-community partnerships is linked to the need to involve tenants in the governance of the terms applicable to their rental flats. This is as argued by organisations such as the International Union of Tenants (IUT), which operates in 47 countries worldwide.

Involvement in the governance of leases can be carried out mainly in two ways. One of them is through the involvement of cooperative housing tenants in the management of their buildings and in decisions about community life, as explained in the previous section.

And the other is consumer-centred, with tenants' associations taking part in the negotiation processes leading to the agreement of the terms and price of rental, together with the Administration and the lessors' representatives. These processes are similar to the collective bargaining processes under which workers' terms of employment and wages are set. The resulting agreements are binding. If owners do not comply with them, they could be compelled to do so by a court established for that purpose (United Nations and Housing Europe 2021). The German example is examined in further detail below.

Germany: tenants' associations also provide legal protection

In Germany, interested parties agree on a table of prices that sets rent limits based on the home's characteristics, location, etc. These price tables have been negotiated by all the parties involved since 1975.

The country's main tenants' association is the Deutscher Mieterbund (DMB), which includes 20 local tenants' associations in Germany and includes a team of 1,300 paid staff and 2,500 volunteers. Tenants pay a small fee to this association to represent and support them in relation to various matters relating to their leases.

Tenants' associations also advise tenants on the legal aspects of the terms governing their leases or on the public services available to them when looking for different types of assistance. Many tenants' associations provide legal protection insurance to cover legal costs in the event of litigation in connection with a lawsuit against an owner for breach of the terms applicable to a lease. In fact, in 1983 Germany's tenants' associations founded

their own insurance company: the *German Tenants' Association Legal Protection Insurance AG* (United Nations and Housing Europe 2021).

The long experience of tenants' associations in Germany has thus enabled them to increase the types of help and support they can give tenants beyond merely representing them in negotiations about maximum rent amounts. 🏡

Can tenants be involved in rent negotiation processes in Spain?

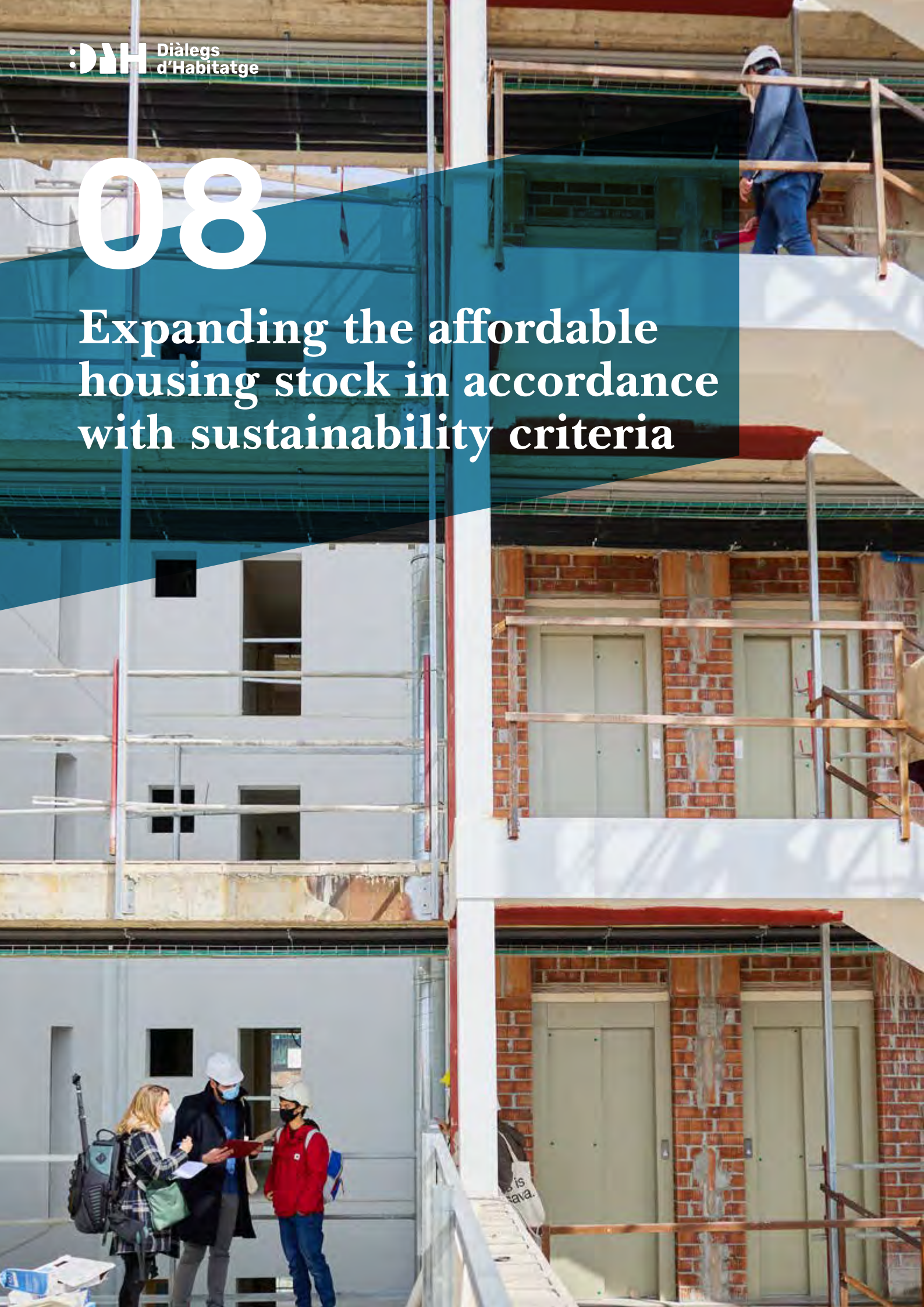
Alejandro Inurrieta, an economist, housing expert and former Chair of the Spanish Public Rental Company, supports the need to import a tripartite rent negotiation model into Spain. In his opinion, the tenant unions that have been created in recent years could represent tenants in such negotiations, but he warns of the difficulty of finding representatives among lessors: "The Spanish rental market is not sufficiently mature. Although there is an increasing number of professionals, there is still a very significant number of small owners who do not want to act as representatives because they do not declare their earnings to the tax authorities and would rather remain unknown".

In order to reverse this situation, Inurrieta believes that the entire housing supply should "come to light and become professional so that the location of all rented flats can be identified and there is a public official register of all rental agreements in Spain".



08

Expanding the affordable housing stock in accordance with sustainability criteria



In the context of the climate emergency, the aim of promoting affordable housing must necessarily go hand in hand with encouraging the sustainability of buildings. The urgency can be seen in the data: according to EU data from 2020, the construction industry is responsible for 40% of the EU's energy consumption and 36% of greenhouse gas emissions. In view of this, sustainable construction models are increasingly gaining momentum.

Making progress in this direction requires several steps to be taken. One of them is adapting and integrating each building into the conditions of its natural habitat, as advocated by the discipline of bioconstruction, which can help improve the building's natural lighting or ventilation or reduce its exposure to electromagnetic fields. According to the specialist architect Carmen Espinosa Rufat's blog *Arquitectura y Salud*, these conditions can also help reduce energy consumption in the home and have a positive impact on tenants' health and well-being.

A second factor that should be taken into account is the choice of construction materials. The structure of buildings can be built with sustainable resources, such as stone, clay bricks, earth blocks, straw bales and others. The insulation of buildings is also fundamental in bioconstruction, and materials such as cork, wood fibre, cellulose, hemp, flax, coconut fibre, straw or cotton can be used for this purpose.

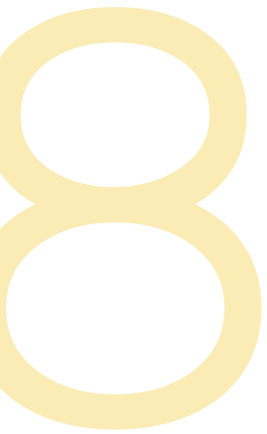
As to the construction process itself, care must be taken to minimise the waste generated and energy consumed in the construction work or to encourage the recycling of the resources used. Ways to recycle the

waste generated in the construction process – both from left-over construction materials (such as wood, bricks or metal) and any other waste generated by construction workers (such as plastic, paper or plaster) can be established.

The sustainability of the building also depends to a great extent on its design and energy sources. Good thermal insulation, suitable ventilation, a good use of natural light, the installation of energy-efficient appliances and other equipment and the use of renewable energies (such as solar thermal or photovoltaic systems), among others, should be encouraged (Ramírez-Zarzosa, 2012).

In the end, the sustainability criterion must pervade the entire construction process and the life cycle of the building. This model involves adapting housing developments, to the extent possible, to circular economy criteria, under which, when a product reaches the end of its useful life, it is kept within the economy whenever possible. You can square the circle by applying the principle of “the three Rs”: Recycling, Recovery and Reuse.





Industrialisation, a process that leads to more sustainable construction

Some construction techniques and processes can make construction more sustainable. One of them, still in its infancy but steadily growing in Spain, is industrialised construction. This essentially involves manufacturing the various parts or modules that make up a home in a controlled industrial environment and then taking them to the location of the property and assembling them there, after preparing the land and laying the foundations (AEC, 2013).

Industrialisation is thus somewhere between traditional construction and prefabricated housing. In the first case, almost the whole of the construction process is carried out on site, whereas in the second it is all carried out in an industrial building. In the case of industrialisation, however, the various parts or modules making up the home are produced in a factory and assembled on site, as explained on the website of the sustainable construction company Arrevol.

Industrialisation helps minimise waste, energy consumption and the environmental impact of the construction process

Industrialisation has several benefits over the traditional construction process in terms of encouraging sustainable construction. Manufacturing a home's various modules in an industrial environment leads to lower energy consumption, construction waste, dust, noise and pollution from the transport of materials. It is also worth noting that, as industrialised homes are made by putting modules together, once they have reached the end of their useful life they can be dismantled and their components used again.

Reduced construction times and greater safety and quality control

The industrialisation process presents many other benefits compared to the traditional method. One of these is reduced construction times – which also leads to lower costs – by enabling several tasks that under the traditional method would have to be consecutive to be carried out at the same time (for example, modules can be manufactured in the factory while the soil adaptation work is being carried out) (AEC, 2013).

Another benefit of industrialisation is that it makes it possible to ensure higher quality housing components, because making them in a controlled industrial environment makes it easier to oversee the process to ensure that it complies with certain construction standards as well as detect errors and correct them in a more immediate manner. Building homes in a controlled environment results in a much smaller margin of error than when working directly on site, outdoors, using the traditional method. In addition, the use of technology to digitalise a home's architectural design and carry out the subsequent control and monitoring of its execution in the factory makes the industrialisation process easier.

As to occupational risk prevention for construction workers, industrialisation provides more safety guarantees than for workers working on outdoor sites, where they are also exposed to the weather (AEC, 2013).

In view of all this, industrialisation processes are increasingly rousing interest among the players involved in housing construction (real estate companies, architects, the public administration and others). According to the Passivhaus building platform, this process is currently used for only 1% of homes built in Spain. However, it is hoped that, over time, Spain will be able to approach the industrialisation levels of other European countries: 9% in Germany, 50% in the Netherlands; and almost all production in Sweden.



Public housing construction site

The challenges facing the growth of industrialisation in Spain

A number of challenges must be overcome before the use of industrialisation in the Spanish construction sector can be increased. One of the most significant of these is the initial investment required. Although industrialisation processes help reduce construction times and costs once they have started, providing the technology, equipment and resources to do this in the first place requires

an initial investment that can discourage developers aiming to maximise short-term profit.

We therefore need various players in the sector who believe in the medium- and long-term benefits of using this method to pool their efforts to promote industrialisation. This will make it possible to gradually increase the amount of industrialised housing in Spain.

As to public developments, the Administration is also facing the challenge of implementing industrialised construction processes that can not only make construction more sustainable but also promote affordable housing at a faster rate, something that is desirable in view of the housing emergency. Some of the main obstacles, as explained below, relate to the difficulties of promoting industrialisation with traditional housing construction tenders, which are limited by the regulatory framework of the Public Sector Contracts Act.



Construction of the Cirerers cooperative housing project

8.1.1

Promotion of industrialisation by the public sector

Promoting industrialisation in the construction process requires collaborative work by the various parties involved in the development of housing (such as architects, developers and industrialists), but this collaborative relationship is seriously hampered by the traditional public tender model. According to Joan Carles Melero, Technical Services Director at IMHAB, this is why Barcelona City Council has started to promote and consider new public tender mechanisms within the framework of the Public Sector Contracts Act in order to facilitate industrialisation.

The disadvantages of traditional tender processes for the implementation of industrialisation

The traditional tender model starts with the award of the architectural design and the final project, which specifies exactly how the construction work will be carried out. Once there is a definitive final project, a public tender to find a construction company to carry out the works is held. This fragmentation into more than one tender of the stages involved in the development of public housing hinders the collaboration

JOAN CARLES MELERO, Technical Services Director at IMHAB:

the traditional tender model “gives the Administration almost no margin of confidence to negotiate unique situations”

between the parties involved that is required for industrialisation processes. Under the traditional tender model, the construction company and the drafting team only start their professional relationship when the construction works start. According to Melero, this is very late.

Melero also adds that, under the traditional tender model, the architectural design also needs to take into account the principle of maximum competition; i.e. it must provide for construction techniques and characteristics that can be carried out and met by many companies. He warns that “something that was originally intended to ensure the maximum possible competition can now prevent the most innovative construction techniques, including many related to industrialisation, from being considered in public tender processes.” For example, with this method, companies that promote innovative construction systems to make more compact homes or use recycled aluminium with quick

and easy assembly systems would be excluded from public developments.

Finally, he mentions as a third disadvantage of the traditional model that, "it gives the Administration almost no margin of confidence when negotiating unique situations," such as the one arising from the economic and financial crisis that started in 2008 following the burst of the real estate bubble. Due to the fall in the prices of construction materials resulting from the crisis, the IMHAB ended up reducing the amount paid to successful bidders of public housing developments by up to 30% from 2011. Compared to up to €980 per m² built in 2010, the amount offered fell to €695 between 2011 and 2016. Later, from 2017, the figure bounced back to around €1,000 per m².

The companies that were awarded contracts for the construction of public housing at the end of the economic crisis, for example in 2016, thus found themselves at a disadvantage when it came to completing their developments compared to those that were awarded contracts only a year later. Some of them even struggled to complete the public housing developments or gave up on them altogether. In this context, Melero asserts that "The Public Sector Contracts Act leaves no room for rebalancing the contract, regardless of whether or not the business owner is right: they are bound by a fixed budget."

Design and construction tenders, an initial alternative to traditional tender processes

In order to overcome the limitations of the traditional model, the IMHAB has tried to make changes to the tender system, although always in accordance with the Public Sector Contracts Act. The first formula that could be used, known as the design and construction tender, has already been put into practice, for example in the award of contracts for four industrialised housing developments of almost 150 flats in Sant Martí in August 2021.

Under this system, the architectural design and the execution of the construction are awarded in a single tender. "The collaboration between the author of the design and the contractor thus starts at the very beginning, because they have to make a joint bid," explains Melero.

Bidding companies must successfully pass a two-stage process in this competition. In the first stage, with a maximum score of 35 points, the architectural quality of the design is assessed by a panel

composed of a majority of independent professionals and a minority of IMHAB members. In the second stage (for the 65 remaining points), objective criteria related to the following issues are assessed: the reduction of the project's environmental impact (up to 25 points), the reduction of construction times (up to 25 points), the financial bid (up to 9 points) and the improvement of the after-sales guarantee (up to 6 points).

On the one hand, awarding 25% of the total score for the tender on the basis of environmental criteria gives companies that are promoting the use of more sustainable materials in construction and are innovating to achieve this goal a greater opportunity to bid in the tender. This is what happened in the tender carried out under this model for the development of affordable rental housing in Sant Martí, whose bidders include companies that use wood or solutions for the optimisation of steel or concrete structures.



“A change in construction materials, encouraging the use of wood, and a change in construction methods, promoting industrialisation, have been fostered”

Visit to the Cirerers housing development

In the tender, points are specifically awarded for the reduction of the environmental impact from the manufacture of the materials used for the structure and façade of the building based on criteria defined by the IMHAB together with the Institute of Construction Technology (ITEC). This goes beyond the current legal framework, which focuses on the reduction of CO₂ emissions and household energy expenditure (water, electricity, heating, etc.).

In addition, allocating 25 points to the reduction of construction times increases opportunities for companies that work with industrialisation, as this usually results in shorter housing construction times.

Furthermore, it is worth noting that the tender system itself (with a single tender for design and construction) leads to faster completion times than

the conventional model (involving two separate tenders for the design and execution of the works). Compared to the average length of 53 months for a public housing construction project under the traditional system, this second model takes only 35 months.

In Melero's opinion, this system represents “a very significant change for the dynamics of tenders” compared to what has been done until now. He summarises its added value compared to the traditional model as follows: “a change in construction materials, encouraging the use of wood, and a change in construction methods, promoting industrialisation, have been fostered, and these improvements have been achieved without higher costs.”

However, he also says that the tender system is yet to be perfected, because putting this second model into practice has also highlighted some limitations. One of the main obstacles is that, in spite of having successfully got contractors and architects to work together in the preparation of the architectural design and the execution of the works, the same cannot be said of their relationship with industrialists.

"We want a direct relationship with industrialists, and we haven't achieved it," admits Melero.

On the other hand, the IMHAB has found that this model still fails to give the right role to architects, who work under the contractor's direct orders in the project and should instead have greater autonomy. A third drawback is the difficulties that arise when trying to carry out this process within the framework of the Public Sector Contracts Act, according to which tenders of this type should only be carried out on an exceptional basis.

Towards a third tender system

In view of the above reasons, in late 2021 the IMHAB was already working on defining a third tender system, which at the time of writing had not yet been put into practice. Just like the second model, its aim is to encourage collaboration between the various players involved in public housing developments. However, unlike the second model, this one aims to preserve the autonomy of each player and redefine the architect's role.

It therefore goes back to a two-tender system (one for the design and one for the execution of the works). But, unlike the traditional system, the two tenders are part of an overall umbrella under which the various players involved can be coordinated. This is achieved by creating a subcontracting board to bring together the various players (architects, contractors, industrialists and the City Council) and a person in charge of managing the overall process (see graph 2).



Joan Carles Melero during his speech at the Barcelona Housing and Renovation Forum (FHAR).

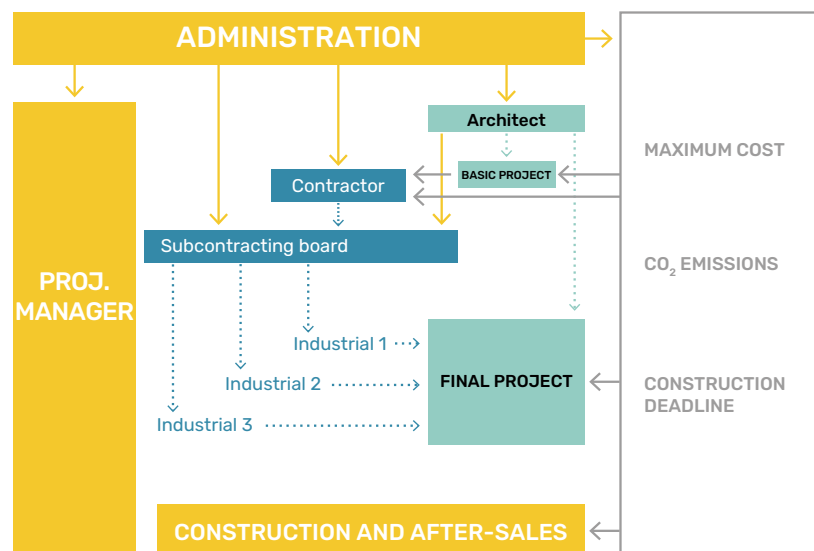
The subcontracting board would be formed after choosing the team of architects and the contractor in the respective two public tenders (the architectural design tender and the construction tender). The contractor would not be chosen based on a final project, which would be prepared collaboratively at a later stage by all the players involved, but based on the architectural criteria of the basic project, the features of the building and the construction prices.

Once chosen, the contractors would have to present to the subcontracting board the industrialists in charge of carrying out the works. The proposed construction systems submitted by the industrialists would have to be approved by both the IMHAB representative and the architect within the framework of the board. Afterwards, the "contractors and industrialists, together with the architect, would jointly draft the final project for the works," explains Melero.

GRAPH 2. DIAGRAM OF THE NEW PUBLIC TENDER MODEL FOR HOUSING PROPOSED BY IMHAB

The scoring criteria for the tenders would also take into account, as in the second model, the reduction in the housing developments' environmental impact and construction times. This would enable companies that use more sustainable materials and those that promote industrialisation processes to bid for construction developments. These matters should be taken into account, with evidence, in the various stages of the public housing development process from the preparation of the basic project until the completion of the works.

In short, the IMHAB hopes that this third model will enable it to work further on the relationships of trust and collaboration of the various parties involved in the development of public housing while preserving their autonomy, as well as help reduce the environmental impact of construction processes and foster their industrialisation.



Source: Original.



"The contractors and industrialists, together with the architect, would jointly draft the final project for the works"

8.1.2

The private sector's experience in the field of industrialised and sustainable construction

Although industrialisation processes are a very new practice in public housing developments, some private-sector companies already have some experience with this method, as well as with sustainable construction. Taking account of the experience of these pioneering companies is key when it comes to considering the use of this construction process in public developments.

The experience of Pich Architects: the Gonsi Sócrates building (Viladecans) as an example of the circular economy in construction

One of these companies is Pich Architects, a renowned firm of architects based in Barcelona but that carries out projects in various countries around the world, with over three decades of sustainable building model research and development experience. As part of its commitment to sustainable architecture, the firm is also committed to new construction processes, such as industrialisation.

Teresa Batlle, one of the partners at Pich Architects, explains that the industrialisation processes in the field of home construction and renovation have led them to put a circular economy model into practice. This model has been integrated into the various stages of the industrialisation process, leading to reduced energy expenditure and waste during construction, as well as better energy savings and energy ratings for the resulting buildings.

In order to illustrate how they have connected industrialisation to the circular economy, she uses the example of a building recently completed in



Viladecans, in this particular case not for housing but for restaurants, shops or offices. It is the Gonsi Sócrates project, a multipurpose mixed-use building in the Parc d'Activitats Viladecans neighbourhood, with shared spaces to encourage interaction between the different groups that use it.

"We see the building as a bank of materials: none of its structures or constructions are fixed and unmoveable. Instead, they can be dismantled and replaced, recycled or reused, or they can provide a biological nutrient that is fed back to nature." This is how the project is described on the Pich Architects website. As Batlle explains, out of all the company's projects so far, this is the one with the greatest use of the circular economy principles: "The circular economy has pervaded the building's entire construction process."

The architectural design was drawn up based on "biodiversity, health and energy impact minimisation criteria". It is also "versatile and flexible" and enables the result to be used for a combination of uses. It contains work and meeting spaces for the people who will use it for a variety of purposes. Starting from the initial design, this four-storey building in Viladecans can be adapted to its tenants' uses and activities based on a non-restrictive architectural model. The building has a roof garden that will be used as a relaxation area.

The construction has been carried out using sustainable materials, and care has been taken to reduce waste both from the manufacture of the construction components and directly from the construction work on site. "There was zero waste from the construction work, which meant we didn't have to pay the municipal waste fee. As to waste from manufacturing, everything



TERESA BATLLE (Pich Architects):

"What we need to do in order to promote the circular economy is reduce waste at every stage of the work"

ended up being reused,” explains Batlle. The Pich Architects partner places particular importance on reducing waste from the construction site, because this is already a more widespread practice in the material manufacturing process: “What we need to do in order to promote the circular economy is reduce waste at every stage of construction.”

She also highlights the coordination of all the players involved and the transparency of the process: information on the composition of the materials and resources used, the characteristics of the building and its energy efficiency rating is available to all parties to the project, as well to as any other interested parties. Batlle explains that “the building has its own passport” documenting everything that has been taken into account in the construction process.

She finishes by noting a challenge for the future: the ability to apply circular economy criteria after the construction process, offering the building's end users services that take this approach into account in its maintenance. “We don't merely design and build: the entire life cycle of the building must be taken into account,” concludes the Pich Architects partner.

Edetco: an expert in the comprehensive planning and management of construction projects, key to industrialisation processes

Another company with over 35 years' experience in comprehensive services and management for real estate projects that is also working with industrialisation is Edetco.

According to Francesc Monells, its Chief Executive Officer and Sales Director, housing industrialisation “is not an aim in itself but a means to achieve certain aims”. He also adds that there are “degrees of industrialisation” whose suitability depends on the number of homes you want to build.

In fact, Edetco's services focus precisely on the strategic planning of construction projects in order

to find the procedures, materials

and methods that are best suited to each customer's needs, based on previous studies. It is precisely at the planning stage that one must consider whether using industrialisation in the construction process would be appropriate in that case. This will depend, among other factors, on the size and type of the residential building to be developed or the configuration of the plot where it is to be built.

As well as planning services, Edetco provides other comprehensive project management and consulting services involving overseeing costs and construction times and managing and minimising risks, direct management of the works, and drafting architectural, engineering and urban planning projects.

FRANCESC MONELLS (Edetco):

“Housing industrialisation is not an aim in itself but a means to achieve certain aims”



Francesc Monells (Edetco) and José Manuel Villanueva (011h), during their speech at the Barcelona Housing and Renovation Forum (FHAR)

According to Monells, one of the main aims of industrialisation is to reduce construction times and costs, as well as achieving more and better features. He also mentions as a positive aspect that the aims of time and cost reduction have already been achieved in the first public housing developments carried out with this method in Barcelona, citing the local accommodation made out of recycled containers under the APROP project as an example.

However, he also notes that the public management systems still face many challenges when it comes to developing housing, particularly where there is a wish to innovate and use industrialisation processes. In Monells' opinion, we must "increase the level of trust between players, bring manufacturers of materials closer to industrialists at the project's preparation stage and ensure that the aims of quality, cost and time are really achieved as a team and in a positive atmosphere". This goal must be combined with the preservation of each player's margin of autonomy, without forgetting that they must each make a profit from the project.

He therefore considers that the new public tender systems proposed by Barcelona City Council, which go beyond the traditional model, are in line with this aim and "open up opportunities" for companies operating in the industrialisation of housing to start working with the Administration.

011h, a company expert in the digitalisation and industrialisation of construction processes

Another factor that can help boost industrialisation processes in accordance with environmental sustainability criteria in housing developments is the use of Information and Communication Technologies (ICT). This is as explained by José Manuel Villanueva, co-founder of the sustainable construction company 011h, a recently created company founded in late 2020. This Catalan *start-up* has around twenty employees, the vast majority of them with digital profiles, who use their knowledge of ICT for sustainable and industrialised construction.

The collaborative work between all the parties involved in the construction or renovation of homes, which is key to industrialisation processes, fits in well

with the network communication models enabled by ICT. As Villanueva explains: "One of the possible reasons why industrialisation is struggling to take hold is because of a lack of digital capacity to ensure interaction and relations between many different players in the production process. We believe that digitalisation is essential if we want to evolve from a construction sector to a construction industry."

In accordance with this approach, the company 011h uses digital technologies to monitor and coordinate industrialisation processes in the development of housing, both at the site itself and outside it (e.g. in the factory and offices). The company uses the BIM technology system, one of the most commonly used systems for the control of industrialisation processes based on a digitalised prototype of the home to be built.

As explained by Villanueva, when they carry out a project, they use their own "internal *software* so that all the *partners* know what to do and how to do it and can keep the other parties informed of what they are doing in *real time* on the joint platform". It makes it possible to link together all the stages of the construction process and the various people involved, ranging from architects, engineers, construction workers, those involved in the manufacture of components and so on. Another technological tool used by them is the artificial intelligence bot *Ophelia*, which can help workmen identify mistakes and correct them immediately.

Villanueva adds that, in addition to the support provided by ICT in the generation of this "ecosystem", the various *partners* in the project must be integrated with each other both "culturally" – meaning that they

JOSE MANUEL VILLANUEVA (011h):

"We believe that digitalisation is essential if we want to evolve from a construction sector to a construction industry"

must share the same aims and criteria for the development of sustainable housing that guarantees people's health and well-being – and "contractually", with collaborative "trust-based" agreements.

The company considers that sustainable buildings are those that emit between 80% and 90% less CO₂ over their total life cycle than buildings of the same characteristics built with more traditional techniques. In addition, Villanueva notes that, on average, industrialisation processes have helped the company reduce construction times by 40%.

As well as reducing the environmental impact and construction times, the networking model, which also includes the suppliers of materials (such as wood and bathrooms) helps source these resources at more competitive prices. This results in a reduction in the homes' final price, something that, according to Villanueva, is key: "End buyers can't pay more for sustainability and industrialisation. We must industrialise sustainably at market prices".

The first block of flats made with industrialised methods by 011h in partnership with Renta Corporación is on Carrer de Joan Maragall, in l'Hospitalet de Llobregat. It is mainly made of wood and has been named *Life Habitat*. During 2022, the company is planning to start on two new blocks of flats in Barcelona's Raval neighbourhood and in Arenys de Mar. It plans to build a total of 1,300 flats using the industrialised construction process by 2024.

The developer Culmia wants to promote industrialisation in large buildings

The use of industrialisation to build housing is also being promoted by the real estate developer Culmia. Its professional team, including its Head of Innovation Anna Guanter, were already working towards this goal at Solvia, the real estate company that was bought from Banco Sabadell by the investment fund Oaktree in 2019. After the acquisition, the real estate development company changed its name to Culmia.

As Guanter explains, the team she leads started to become interested in industrialisation in 2015, when they were looking for “new ways to control buildings: controlling cost, quality, completion times and so on” within the framework of its commitment to innovation and sustainability. The developer has set itself the goal of ensuring that all its homes have the best energy rating (A).

Satisfied with their first forays into industrialisation, they decided to keep moving forwards towards more collaborative working models in order to further enhance this construction process. In late 2021, Culmia, which boasts over a hundred employees, already formed part of a working group with other companies to analyse how to design collaborative contracts to build homes under which the construction company was part of the team from the very start of the project.

ANNA GUANTER, Head of Innovation at Culmia:

“there aren't any large companies that can industrialise large buildings for us”

However, Guanter notes some of the problems it is encountering in its quest to industrialise the building of homes. On the one hand, there are funding issues. When they were part of Banco Sabadell, this bank provided the necessary credit to cover the costs of housing developments. But, since their acquisition by the Oaktree fund, this funding is not guaranteed from the start, so they have to try to find funding under standard financial market conditions. According to Guanter, a recurring issue is that they are unable to secure loans for this purpose “unless they have already sold a certain percentage of the homes forming part of the project”.

In addition, they have on occasion also found that, due to their own ignorance about the basic characteristics of the industrialisation process, some financial institutions are unwilling to grant loans to build housing developments in a place other than their final location.



Anna Gualter at the Barcelona
Housing and Renovation Forum (FHAR)

According to Guanter, “another major problem is that there aren't any large companies that can industrialise large buildings for us” in Spain, where this is a new practice.

Despite all these difficulties, Culmia is already starting to carry out industrialisation processes in the development of large numbers of homes. For example, in 2021 it was awarded a contract for the construction of 1,763 public homes in five municipalities in Madrid autonomous region under the third lot of the *Plan Vive* tender, which will be built with the industrialised method. In order to build the homes, Culmia has partnered with Avintia, a company that specialises in industrialisation, and the two companies submitted a joint bid to the public tender.

Examples such as this show that, in spite of still being in its infancy in Spain, industrialisation is gradually making a place for itself in the Spanish real estate sector and in the field of public housing development.

Sustainability and industrialisation of public housing: the example of Navarre

In Navarre, the Navarra Social Housing (NSH) plan, the regional government's main commitment to the promotion of affordable rental housing in this autonomous region, has been under way since 2017.

The implementation of the plan, under which up to 1,200 homes are to be developed by 2024, is being carried out by Nasuvinsa: the Navarre regional government's public housing and urban planning company. It has an initial budget of €80 million provided by the regional government and Nasuvinsa and co-funded at 50% by the European Investment Bank (EIB).

Alberto Bayona, Managing Director of Nasuvinsa, explains that the construction of 200 out of the 1,200 homes envisaged under the NSH plan “include industrialisation aspects”, mainly the manufacture of wooden modules, which are then assembled on site. “It is a system that is starting to become industrialised but is not yet fully so,” explains Bayona, highlighting Nasuvinsa's wish to continue to move forward in this regard.

According to Bayona, the digitalisation of the construction process is “the first step towards working with industrialisation”. In order to develop a building, the company starts from a virtual design model to which the various parties involved in the development of the homes can make contributions. “This virtual model is then used for the construction, as well as to monitor and maintain the building once it is completed,” he explains.

In order to continue applying technological innovations to the development of affordable housing, a year ago the Navarre regional government unveiled plans to promote a construction automation and industrial research centre in partnership with Zurich Polytechnic University. This is a leading facility in the field of construction sustainability and industrialisation.

The regional government wants to continue searching for solutions to help reduce construction times and costs, which will result in more affordable prices for citizens while achieving high levels of environmental sustainability and energy efficiency. "We also want to hold training courses for master's degrees, vocational training and so on, and apply the findings of research to specific projects in partnership with private companies," says Bayona.

According to the Managing Director of Nasuvinsa, working together with the private sector is key to the promotion of industrialisation in the construction process. He explains that this is why they want to encourage the creation of an association for the promotion of industrialisation that involves private sector companies that are already using this method to build homes or intend to do so in the near future.

"We are hopeful that the national research centre and the industrialisation association we are promoting in Navarre, together with the demand being driven by Nasuvinsa in accordance with the industrialisation and sustainability criteria that get high scores in public tenders will encourage the private sector to take action to implement it," summarises Bayona.

ALBERTO BAYONA (Nasuvinsa):

we have reached industrialisation "as part of a natural process" due to the previous interest in the sustainability of public housing

All developments under the Navarre Social Housing plan are carried out in accordance with European Nearly Zero-Emission Building (nZEB) standards. In the case of Navarre, the previous interest in the sustainability of construction has led to the implementation of industrialised construction "as part of a natural process". Bayona explains that the Navarra Social Housing plan was designed to build homes in accordance with passive standards and minimal energy expenditure right from the start. "The next step was to consider making positive energy buildings; i.e. buildings that produce more energy than they need; and this was followed by construction in accordance with the circular economy. The final destination of this process is industrialisation, because it facilitates everything else," he concludes.

8.2

Fostering renovation-based sustainability

The renovation of homes can help achieve many aims (improving sustainability and energy efficiency, accessibility, health conditions, well-being and comfort, the functionality of spaces in the home, and many more). In addition, it can provide an opportunity to increase the affordable housing stock, for example by using vacant flats for this purpose and refurbishing them for use as public rental properties (CTESC, 2021).

The European Green Deal, Europe's roadmap map to climate neutrality by 2050

In the face of the climate emergency and rising energy prices, it becomes particularly important for renovation processes to comply with sustainability and energy efficiency criteria. In late 2019, the EU launched the *European Green Deal*, which sets out a roadmap for Europe to reach climate neutrality by 2050; i.e. to reach a situation in which the amount of greenhouse gas emissions into the atmosphere is equal to the amount avoided, making the overall balance zero. Achieving this aim requires the various social and economic sectors, particularly those with the greatest environmental impact, such as the construction sector, to get involved in the energy transition process (Nasarre-Aznar *et al.*, 2021).

The *Renovation Wave* sets itself the goal of renovating up to 35 million buildings in the EU by 2030

Specifically in relation to the building sector, the EU has launched the *Renovation Wave* strategy under the umbrella of the European Green Deal. This was presented in late 2020 to foster the energy renovation of the real estate stock. The *Renovation Wave* has set itself the goal of renovating up to 35 million buildings in the EU's various member states by 2030, which should have the added benefit of creating 130,000 new jobs.

The *Renovation Wave* is composed of three strategic focus areas: the decarbonisation of home heating and cooling systems, tackling energy poverty – which is made worse by the energy inefficiency of homes – and renovating public buildings (administrative buildings, healthcare facilities, schools, etc.). In order to carry out these lines of action, it intends to tighten the European legislation on the energy performance of buildings (Housing Europe, 2021).

Funding is an essential aspect when it comes to deploying the *Renovation Wave* and all the actions envisaged in the European Green Deal in general. In late 2019 the European Commission agreed to mobilise up to €1 billion of public and private funds over 10 years to carry out the Green New Deal through a number of EU subsidies and programmes and financial instruments to encourage investment by the private sector.

The Next Generation funds, an historic opportunity to foster energy renovation

Later, in July 2020, the European Council agreed to launch the Next Generation funds to promote the member states' socio-economic recovery in view of the impact of Covid-19. These funds also aim to build post-Covid Europe with sustainability, digitalisation and resilience as its core pillars. The EU has endowed these funds with almost €750,000 million in total, to be distributed between the various member states and channelled mainly through the EU's Recovery and Resilience Facility. The facility provides a framework for member states to design their own recovery plan in accordance with each region's specific needs. Member states wishing to qualify for Next Generation funds must have this document.

In fact, Spain submitted its own Recovery, Transformation and Resilience Plan in April 2021. Spain has applied for up to €70,000 million of Next Generation funds, of which it received €10,000 million in late 2021. Sustainable mobility is the main priority of the Spanish recovery plan, followed by housing renovation and urban regeneration.

Over half of Spain's housing stock is more than 40 years old

The ageing residential stock makes it particularly important to promote the renovation of housing in both Catalonia and the rest of Spain. According to a 2021 study by the real estate portal Idealista, over half of Spain's housing stock was built over 40 years ago, a percentage that is even higher (59.8%) for Catalonia (65.5% for the province of Barcelona and as high as 84.5% for

Barcelona city). This helps explain the low energy efficiency of Catalonia's residential stock, most of which is E-rated, one of the lowest ratings. It is worth noting that, before 1980, there were no construction regulations on buildings' temperature or energy conditions.

Renovation, an unresolved issue in Catalonia and Spain

Despite the special renovation needs of our local residential stock, this is a significant unresolved issue for Spain as a whole. According to a 2021 report of the College of Surveyors of Barcelona, the annual renovation rate on Spain's built surface area is 0.8%, compared to 1.82% in Austria or 1.49% in Germany. In the case of Catalonia, it is worth noting that the Housing Act of 2007 authorised city councils to declare conservation and renovation areas (ACRs) within their municipal areas in order to accelerate renovation processes in areas with particularly deteriorated properties. However, very few town councils have used this so far (those that have used this power include, among others, Santa Coloma de Gramenet and Barcelona).

MARTA MORERA, Director of the Catalan Energy Institute (ICAEN):

“renovation must be encouraged not just to save energy but also for financial reasons”

To overcome these shortcomings, Marta Morera, Director of the Catalan Energy Institute (ICAEN), believes in revitalising energy renovation and overcoming the obstacles that have so far hindered this in Spain as a whole. Of these, she mentions in particular the predominance of buildings under the horizontal property system, “where management and reaching agreements are more complicated” than when it comes to deciding to undertake renovation processes in single-owner buildings (vertical ownership). She also mentions



climate-related reasons: “In other European countries, the harsher climate makes energy renovation more important in order to achieve a level of comfort and reduce the time of return on investments”. However, she thinks that energy renovation presents a challenge both for our own country and for Europe as a whole: “We are all still far from achieving the goal of renovating 3% of the housing stock each year set in the European Directive on the energy performance of buildings (*Directive 2018/844*)”.

According to Morera, “renovation must be encouraged not just to save energy but also for financial reasons”. This statement is supported by the rise in energy poverty – which already affected over 10% of households in Catalonia in 2021 and is growing worse due to rising energy prices.

The Director of ICAEN considers that renovation must be supplemented by other measures, such as optimising households’ electricity contracts or increasing renewable energies, as well as the models for the self-generation of energy from renewable funds, such as

local energy communities (communities that produce all the energy they use).

ICAEN works together with the Catalan Housing Agency (AHC), among other bodies and departments of the Generalitat, to promote energy renovation. The AHC has had various grants and subsidies available for this purpose, covering part of the cost of home remodelling works up to a maximum limit, for years.

However, the budget for financial aid for carrying out renovation works in Catalonia, including not just the AHC’s but also those of the Barcelona Housing Consortium and the Metropolitan Housing Consortium, was slashed by more than half between 2015 and 2020. According to the latest report published by the AHC, relating to 2020, the financial aid awarded fell from €50 million to €23.2 million in that period.

This downward trend leading to 2020 is seeing an uptick since the advent of the Next Generation funds. Under the Generalitat’s budget for 2022, €387 million is to be allocated to the deployment of the Urban Regeneration and Renovation Plan. This falls under the recovery and resilience mechanism designed by the Generalitat within the framework provided by the Spanish Government and the EU for the receipt of these funds.

“The Next Generation funds for energy renovation are unprecedented” and “make it clear that, in order to recover from the economic crisis triggered by Covid-19, we clearly need to promote the energy transition,” states the Director of ICAEN. This year, the said body is putting out calls for grants totalling €165 million, in addition to those of the Catalan Housing Agency, for the energy renovation of buildings.



ICAEN manages various grant facilities to foster renovation investment under the PREE (Programme for the Energy Renovation of Buildings) and PREE 5000 programmes, specifically targeted at towns of up to 5,000 inhabitants. These are Spanish Government programmes run by the regional governments. The Catalan Energy Institute similarly manages grants for self-consumption from renewable energies.

In addition to the grants awarded by ICAEN and the Catalan Housing Agency, the Catalan Institute of Finance (ICF) grants various types of loans to encourage energy renovation. An example of these is its 15-year loan for residents' associations at 2%.

Energy renovation can also be fostered through tax incentives. According to the Director of ICAEN, the personal income tax deductions that came into force for this purpose in October 2021 are

are required to reduce their demand for heating and cooling in their main home by at least 7%, it will only apply to significant energy renovations”.

Morera states that, so far, funding has been one of the main “barriers” to the promotion of energy renovation. However, she firmly believes in taking advantage of the “window of opportunity” provided by the European Next Generation funds to promote investments in this regard, although with the warning that it involves “a significant management challenge for all the players involved (the Administration, professionals and the public). In her opinion, there is currently “a medley of calls for grants,” because the general European funds are being managed by various different bodies, and something must be done to “avoid confusion”. From her point of view, “calls must be decentralised and funds must be made region-specific to make them more effective and in accordance with reality”.

The Director of ICAEN also supports making private capital available for use in renovation: “applications for funding to carry out a building renovation should be subject to similar financial conditions as when applying for a mortgage, and this should be achieved in the short term”. She also urges specialist energy service

The personal income tax deduction “will only apply to significant energy renovations”

“an expected measure” as well as a “positive” one, but she also warns that “The critical issue is that, as beneficiaries

“Applications for funding to carry out a building renovation should be subject to similar financial conditions as when applying for a mortgage, and this should be achieved in the short term”

companies to get involved in the funding of complex renovations: “for buildings in which a very significant reduction in energy consumption can be achieved, the possibility of entrusting the energy renovation to a specialist energy service company should be considered. In such cases, the company could even advance the necessary amounts and recover the investment from the financial savings guaranteed and achieved.”

According to Morera, there are currently several factors that can make private funds available for this purpose. In the face of the very high and fluctuating energy prices, “energy renovations are an increasingly appealing investment, with shorter return periods”. “This is even more attractive if you add possible subsidised to the investment,” i.e. when the funding parties are advancing funds that will later be paid out of public funds. It is worth considering in this regard, as noted by the Association of Quantity Surveyors, Technical Architects and Building Engineers of Barcelona that, for every €1 of public funds allocated to renovation, €3

of private capital is made available. Another factor to be taken into account is the fact that investments in this field usually “increase the value of the building by more than the amount invested,” notes Morera.

The improvement in funding must be accompanied by greater social awareness of the need to improve the energy efficiency of buildings. Using infographics, videos, specific webinars and ICT, among other methods, ICAEN's website provides information about this, as well as about the financial aid that is available to do so. It includes a [simulator](#) of energy renovation measures for buildings, an application that, based on the building's characteristics entered by the user (such as type of building, age or climate zone), provides an estimate of the available renovation options, the investment required and the resulting energy and economic savings. This tool is aimed at architects and engineers, as well as owners considering renovating their home.

The local area, key to energy renovation

Another approach being taken by the Catalan Energy Institute is the provision of technical support at local level. In fact, among other actions, it has issued a call for grants to create regional energy transition promotion offices. Furthermore, ICAEN advises city councils about the increasing opportunities to apply for various renovation grants using Next Generation funds.

In the case of Barcelona, around €20 million per year of public resources has been allocated to housing renovation in recent years. However, this rose to €36.97 million in the latest call for grants of the Barcelona Housing Consortium (composed of the City Council and the Generalitat) in October 2021. Up to 30% of this could come out of European Next Generation funds. This will also make it possible to increase the number of renovated homes to 15,000 per year in 2022 from approximately 10,000 per year until 2020.

In addition, the Metropolitan Building Renovation Plan (PMRH) for 2020-2030 was approved by the Metropolitan Housing Consortium in late 2020. The Plan envisages the renovation of 51,800 homes in other towns within the metropolitan area – but not Barcelona city, because it already has its own consortium – by making available a public-private investment of over €600 million.

In addition, ICAEN wants to provide support at local level to help it promote local energy communities, particularly in view of the possibility of the European directive in this field being transposed into Spanish law, which would facilitate the conditions for their establishment. “The renewable self-generation of energy directly addresses the current rising and fluctuating energy price situation. In addition, it is not just an economic improvement but also a way of empowering consumers to participate in the energy market by generating energy and being flexible with its demand.”

By late 2021, there were already over 21,000 self-consumption installations throughout Catalonia, with a total power of over 171 MW, and more than 8,000 of these were built last year. This is according to ICAEN's Catalonia Self-Consumption Observatory. This option is gradually making headway in Catalonia.

“Renewable energy self-generation (...) is not just an economic improvement but also a way of empowering consumers”



A comprehensive look at sustainability:

social, environmental and health criteria in construction and urban planning

Accessibility, air and indoor environment quality, ventilation, lighting, healthy conditions, adaptation of the homes to residents' needs and to the many types of family and shared-living models... Beyond reducing energy consumption and the environmental impact of buildings, many other aspects affecting people's health and well-being must be taken into account when building or renovating homes.

Setting the highest-priority goals for each renovation process requires "a very open mind and a careful diagnosis of each building to establish exactly what needs have to be covered," states Sònia Hernández-Montaña Bou, an architect specialising in bioconstruction and healthy architecture.

The architect, who also coordinates the Work and Health Group of the Architects' Association of Catalonia

(COAC), notes that the conditions of homes or their surroundings also affect people's health: the socio-economic factors other than the healthcare system that affect people's health. "Urban planning and building, and architecture in general, must be a public health tool," she asserts, noting that this is not a new concept. The hygienist movement that spread throughout Europe between the late 19th and early 20th centuries already started to take this into account in architecture and urban planning to improve the living conditions of city residents, particularly the most impoverished social groups.

In the current situation, the expert warns that relevant issues relating to the factors that can affect health, such as damp, have been identified in Catalonia's housing stock. According to the report "Emergència habitacional, pobresa energètica i salut" ["Housing emergency, energy poverty and health"] (2020) of the Platform for People Affected by Mortgages (PAH), Engineers Without Borders, the Alliance against Energy Poverty (APE) and the DESC Observatory – based on a survey of 415 people involved in the PAH and APE – 45% suffer from damp or leaks in their homes. "This can affect not just the respiratory tract, but also the immune system," warns the expert.

SÒNIA HERNÁNDEZ-MONTAÑO
BOU, architect: **"Urban
planning and building,
and architecture in
general, must be a public
health tool"**



According to the WHO, 30% of buildings suffer from sick building syndrome

The impact of buildings on people's health, which is not restricted to residential buildings and also affects properties used for other purposes (such as offices and company headquarters), has led the World Health Organization (WHO) to coin the term "sick building syndrome". This is defined as the set of diseases caused or exacerbated by factors such as air pollution in enclosed spaces, poor ventilation, ionic or electromagnetic charges, bioaerosols, gases, vapours, low humidity, static electricity from carpets, or magnetic fields from Wi-Fi networks and electronic devices, among others.

Although these problems tend to go unnoticed compared to others – such as a building's energy inefficiency – it has a significant impact on the real estate stock. According to the WHO, 30% of buildings in the world are affected by sick building syndrome. This affects mainly offices, but also residential properties.

A few cases have appeared in Barcelona too, such as in Torre Agbar or the Gas Natural building, in the Barceloneta neighbourhood, where cases of semicircular lipoatrophy were found among office staff. This condition, known in some places as "sick office syndrome", causes a reduction in subcutaneous fat that presents mainly as 2-3 cm grooves on the thighs. In fact,

the identification of cases of this disease in users of such buildings has led to action being taken to rectify the initial problems. Other possible symptoms for users of sick buildings include, among others, "pharyngitis, cramp, itchy eyes, hairs standing on end," explains Hernández-Montaño Bou, who is also a member of the Architecture and Sustainability Group (AUS), has written several publications and teaches in this field.

In order to address sick building syndrome and generally improve the health factors of buildings, the architect explains that the AUS now includes a new working group with the aim, among others, of making "proposals to improve buildings' indoor air quality so they can be taken into account in the next review of the technical building code due to be carried out in 2024". She denounces in relation to this that the last reform of the technical building code

resulted in "buildings becoming more airtight than before, which can have negative consequences on people's health".

This reform, which was carried out in late 2019, provides for more stringent conditions, particularly with regard to buildings' energy efficiency and safety but, in Hernández-Montaño Bou's opinion, it fails to sufficiently address these other health-related matters.

The architect also believes that now, after the Covid-19 pandemic, is a good time to rethink certain aspects of urban planning to take greater account of sustainability and ensure this is properly included in the building process. "When talking about urban planning and public spaces, we often do so thinking from the inside out. We need much more interaction between buildings' outside walls and the city. We have a mental barrier between construction and urban planning, which, in a way, we should start to break down."

The Architecture and Sustainability Group (AUS) will make proposals to improve the indoor air quality of buildings so they can be taken into account in the next review of the Technical Building Code due to be carried out in 2024

In the post-Covid context, the expert believes that the lines of action that started with what is known as tactical urban planning, applied by some cities such as Barcelona to change the uses of public spaces quickly and in an agile way (such as traffic-calming measures or measures to encourage cycling), particularly during the pandemic, cannot be allowed to become mere temporary measures. According to

"We have a mental barrier between construction and urban planning which, in a way, we should start to break down"



“Tactical urban planning is a tool for speeding up processes, but they must then be consolidated”

Hernández-Montaña: “Tactical urban planning is a tool for speeding up processes, but they must then be consolidated”.

In relation to this, Barcelona City Council has expressed the wish to consolidate the pedestrian areas established through one of the most visible examples of tactical urban planning in Barcelona: superblocs. This project has resulted in more pedestrian areas in neighbourhoods such as Sant Antoni or Poble Nou, implemented by means of paint markings, street furniture or large planters.

Permeable paving floors can help alleviate the heat island effect

The healthy architecture expert adds other aspects in addition to the need for traffic-calming measures that should be taken into account by urban planning, particularly in order to take account of biodiversity criteria. One of her proposals is the current asphalt paving used. As the current type is waterproof, all rainwater ends up in the sewers. Permeable or porous paving, on the other hand, can hold water. The architect provides an analogy with the forest to explain the positive impact this would have on the city: “When it rains in the forest, the water stays in the soil, and this moisture significantly helps minimise the heat island effect.” Permeable paving acts as a thermal buffer, providing several benefits for the city's water regulation and the reduction of temperatures. Another proposal is to put trees or bushes directly in the tree spaces on the ground rather than in their current pots.



Eco-neighbourhoods, a benchmark model

In addition to specific actions, the architect believes in a paradigm shift towards the eco-neighbourhood model. In this model, “each neighbourhood is seen as a system in which both energy production, social engagement, the care of public spaces, the emphasis on bioclimatism and the introduction of biodiversity, among others, are aligned with each other. All the variables are included in the designs not just of streets and public spaces but also of buildings”. The healthy architecture expert provides two examples of benchmark eco-neighbourhoods in Europe: Vauban on the outskirts of Freiburg (Germany), and EVA-Lanxmeer in Culemborg (the Netherlands).

Vauban, the EU's first eco-neighbourhood

(FREIBURG, GERMANY)

Vauban, on the outskirts of Freiburg (Germany) is the EU's first eco-neighbourhood. Construction started in 1993 and was completed in 2008. It includes around 5,300 homes and takes up about 38 hectares, which were bought by the federal government to carry out this project.

Sustainability criteria permeate both the neighbourhood's urban planning and the design of its buildings. Its floors are permeable to rainwater, and there are large green and leisure areas for residents, combined with residential uses, shops and facilities. The whole neighbourhood is designed to prioritise walking or cycling. 40% of residents do not own a car, and those who do must leave it in car parks on the outskirts of the neighbourhood. It also has waste management and recycling systems.

The neighbourhood's energy production relies on a biofuel-fed energy cogeneration plant located centrally in the neighbourhood. Furthermore, all its homes can enjoy renewable energies as a result of the solar thermal and photovoltaic panels on the buildings, which comply with stringent energy efficiency standards. The EU's first eco-neighbourhood is located precisely in the sunniest part of Germany, in the south-west of the country, bordering France. In fact, Freiburg is a world leader in the installation of photovoltaic solar panels (Usón, 2012).

The neighbourhood's buildings are built by groups of owners in the form of cooperatives, funded by contributions from residents' associations. The eco-neighbourhood of Vauban thus combines social and environmental sustainability.

EVA-Lanxmeer: 250 eco-homes in Culemborg

(THE NETHERLANDS)

A second example is the neighbourhood of EVA-Lanxmeer, in Culemborg (the Netherlands). Up to 250 eco-homes were built with sustainable materials in this neighbourhood between 1994 and 2009 on a 24-hectare former water abstraction zone. One of the main pillars on which this eco-neighbourhood is built is precisely the comprehensive rainwater and wastewater management and treatment system.

As to energy, passive standards and renewable energy use are encouraged, and most homes have solar and photovoltaic panels on their roofs. As with the Vauvan neighbourhood in Germany, there are no cars in EVA-Lanxmeer, and public and sustainable transport are encouraged. Healthy and sustainable food is also encouraged, and organic agriculture is promoted.

Another pillar of the project is social participation. In fact, workshops were held as early as the design stage to listen to future inhabitants' proposals regarding its planning. The result is a neighbourhood with varied and balanced uses and functions of the land (urban land, green areas, areas for leisure, work or education, etc.) that meets the needs of the community.

In these two European benchmark eco-neighbourhoods, both urban planning and construction follow a socially and environmentally sustainable model. This also includes promoting sustainable mobility, another aspect that needs to be implemented closer to home, particularly in more densely populated areas with more travel, such as Barcelona and its metropolitan area.

**“In order to remove cars,
we must either reduce
the need for them or
provide alternative
solutions”**

The architect notes that, beyond merely encouraging the use of public transport, it is “important to ensure that the city is walkable,” among other reasons to ensure that people do the amount of physical exercise they need for a healthy life, particularly considering that most people do less than the recommended amount. However, she also warns that “In order to remove cars, we must either reduce the need for them or provide alternative solutions”.

Decentralising workplaces to reduce the need for travel

The keys are to improve public transport and create city models in which basic services can be found close to home, reducing the need for motorised travel. The contributions of the “fifteen-minute city” theory can be taken as a reference in relation to this. This promotes an urban model in which services and facilities are available all over the various urban areas and can be reached from anywhere in the city within no more than 15 minutes cycling or on foot (Mardones Fernández de Valderrama *et al.*, 2020). The contributions of feminist urban planning can also be taken into account. These basically advocate that cities should be designed placing life at the centre, against the patriarchal models that have given priority to their productive and economic use. This must be done through mobility conditions and location of facilities and services that make it easier to balance people's various tasks, ranging from care and reproduction tasks to paid employment, and including citizen and political participation (Col·lectiu Punt 6, 2019).

“The pandemic involved a problem in relation to which everyone became aware and understood that their individual behaviour had an impact on everyone else”

As to Barcelona and its metropolitan area, the sustainable architecture expert asserts that “In general, there is quite a mix of uses in Barcelona. There is local neighbourhood life in general, people going to school, primary healthcare centres, the supermarket... in every neighbourhood in the city. But there is still something that is not well distributed: the city's active and productive part. There are still areas that are for work, business, companies... resulting in large amounts of traffic and travel to get there, as well as areas that are still dormitory neighbourhoods”. She believes that a greater effort should be made to decentralise and redistribute workplaces.

In both cases, both as regards the decentralisation of workplaces and the improvement of public transport, in the architect's opinion, it is essential that we take “a metropolitan approach”. She also thinks that we must continue working on public awareness. As to people's resistance to stop travelling by car, she draws the following parallel: “The pandemic involved a problem in relation to which everyone became aware and understood that their individual behaviour had an impact on everyone else. This could be extrapolated to many other areas of our lives, such as mobility”.

She also considers, based on the same perspective, that the private sector should get involved in the construction of more sustainable cities, a challenge that goes beyond the Administration's capabilities and involves society as a whole. 🏡

09

Data and knowledge,
keys to improving
public housing policies



The importance of data when it comes to planning housing policies

Planning public policies based on an analysis of data on the population's true needs is fundamental in any area, but even more so if they require large investments by the administrations, as in the case of policies for the promotion of access to affordable housing.

"We must strive to ensure the effectiveness and efficiency of public resources based on our knowledge of data." This is as expressed by Jordi Bosch, Head of the Generalitat de Catalunya's Housing Services and Technical Director of the Barcelona Metropolitan Housing Observatory (O-HB). The Administration has access to significantly more data than it did at the start of the 21st century, something that has gone hand in hand with an increase in the number of research centres, experts and articles and publications in this field.

However, Bosch also warns that, due to a variety of reasons, the potential of public data on housing "is not being taken used to its full potential". "Not all processes are automated" in public administrations so that data can be exploited and analysed. Another added problem is that, despite having made legislative progress in matters of data and transparency in recent years, data cannot always be published for

JORDI BOSCH, Head of the Generalitat's Housing Services:

"Any properly anonymised information on housing or any related public activity should be open to everyone"

open access. Bosch highlights the resulting paradox: "Despite much of the data having been generated by institutions using public money, not all of this is in the public domain".

In order to find the right balance between transparency and privacy, he proposes automating processes so that properly anonymised data can be published and made available for public consultation without breaching data protection rights. "Any properly anonymised information on housing or any related public activity should be open to everyone."

According to the Head of the Generalitat's Housing Services, this issue has not yet been fully addressed in Catalonia, where there are still "delays in make information available in order to comply with transparency while avoiding any breaches of privacy rights". In order



to rectify this situation, he suggests designing protocols that already consider how to respect both transparency and privacy from the start of any administrative procedure.

According to Bosch, we must also further cross-reference the data that can be useful for planning public housing policies in relation to various matters: the socio-economic and demographic profile of the population, the economic aspects linked to the real estate market, and the more physical elements relating to the territory and the characteristics of the properties (quality of maintenance, energy efficiency, etc.). "It would be a phenomenal leap for making diagnoses, enabling us to anticipate the volatility of the market," he explains.

A greater cross-referencing of data would help to better define the general framework under which Catalonia's housing policies are planned. This framework is currently made up of several city councils' local housing plans. The other piece of the

system, which must provide the foundation for Catalonia's general framework, is the territorial sectoral housing plan. The territorial sectoral housing plan was already due to be drawn up under the Housing Act of Catalonia of 2007, under which it was to be approved within a year. However, for a variety of political reasons related to the impact of the economic and financial crisis, this approval has been postponed. In fact, it has recently been given the green light by the Generalitat.

The potential of the Internet and ICT can be used to cross-reference the data, although Bosch warns that "ICT are not the answer to everything. You can't put technology above knowledge."

"Sometimes we have macro data but, when we go down to the local level, we don't really know what's going on"

Another challenge is how to continue feeding housing statistics with quality and territory-specific data.

"Sometimes we have macro data but, when we go down to the local level, we don't really know what's going on," admits Bosch. Furthermore, he adds that quantitative analyses could be supplemented with qualitative studies, which "bring added value to research" and are generally not very widely used, particularly in Catalonia.

In short, he insists on continuing to make progress with the management of public data, not just in order to plan housing policies but also to monitor their implementation, and especially in order to assess them. It is at this last stage that the use of data is less common in Catalonia, in spite of the importance of assessing the outcome of a policy to establish its effectiveness.

One of the Spanish benchmarks in the management of public data on housing and the use of such data to improve policies in this field is the Basque Housing

ELENA SÁNCHEZ, Head of Innovation at the Basque Housing Observatory:

We need to strike the balance that allows us to use the data for public policies while being transparent and respecting the right to privacy

Observatory, which is affiliated to the Basque Government's Department of Territorial Planning, Housing and Transport. Elena Sánchez, Head of Innovation at the Observatory, explains that they have always based their work on the wish to strike a balance between the need to publish data transparently and apply such data to the improvement of public policies based on a *data-driven* approach (or a data-based decision-making approach) and the need to guarantee the right to privacy.

She admits that the path to this balance is "not an easy one". Although the large volume of data currently managed by the Administration creates many opportunities, it is not without risks. One of the most obvious of these is political leaders' "temptation" to use such data for their own benefit – for example in order to gain voters.

A glance at the already common practices of the private sector is enough to become aware of the risk and responsibility entailed in handling such significant volumes of data. Many private companies are "monetising" such data. In other words, they are taking advantage of their actual or prospective customers' data – accessible online – to perfect their sales and advertising strategies and increase their profit margin.

In the face of rising data monetisation in many different sectors, Sánchez insists on warning against such practices by the Administration: "Something that is valuable for a company – leading to a good characterisation of its customers – may be less valuable to the Administration, because there is a clash between data and people's right to privacy."

"Something that is valuable for a company – leading to a good characterisation of its customers – may be less valuable to the Administration, because there is a clash between data and people's right to privacy"

At the same time, the need to protect the privacy of the public cannot be used as an excuse to avoid guaranteeing the transparency of public data. "In the Administration, the dilemma often ends up with data protection winning over the right to information, because it's easier," he laments. According to Sánchez, administrations must carry out a necessary "balancing" exercise in relation to the various rights and needs related to the recording and processing of public data and choose the solutions that best fulfil both the needs of transparency and those of privacy in each case.

The Basque Housing Observatory's team members have been thinking

"In the Administration, the dilemma often ends up with data protection winning over the right to information, because it's easier"

Elena Sánchez emphasises that, thanks to the analysis of technical building inspection information based on *big data*, they can now be better prepared for the opportunity provided by the Next Generation funds

about this for quite some time now, leading to a data analysis and processing solution that is already being used for public policies. Elena Sánchez highlights that the most recent Basque Housing Master Plan (2021-2023) is “tailor-made” to people’s needs, as it is based on a diagnosis of hundreds of indicators, huge surveys, over 2,400 citizen proposals and the involvement of over 700 organisations.

Another reason leading the Basque Country to use the *data-driven* approach in housing policies is the legal framework itself. Under the Statute of the Basque Country, housing is a subjective right, which means that members of the public can go to court over violations of it. This is very different from the Spanish or Catalan legal frameworks, where the constitutional or statutory right to housing as such cannot be enforced directly in court but instead requires an implementing law before a claim for breach can be made.

The statutory recognition of the right to housing in the Basque Country has resulted in greater pressure on the public housing protection system. “We have courts that can hold that citizens have a subjective right and that we are in breach of that right,” explains Sánchez. In fact, the Basque Housing Observatory has carried out a *big data* project to predict how many people could exercise this subjective right and claim it before the courts over the next decade in order to anticipate this and design public policies that are able to meet these needs. This *big data* system cross-references data on families’ socio-economic status, housing market supply and demand trends, the register of social housing and more.



Elena Sánchez at the Barcelona Housing and Renovation Forum (FHAR)

The Observatory has also designed a *big data* system for Technical Housing Inspections (ITE) that collects and processes the data generated by ITEs in relation to the quality of homes and their renovation needs (e.g. in terms of façades, roofs, ventilation, lifts, energy efficiency and saving, etc.). Elena Sánchez emphasises that, thanks to the analysis of this information based on *big data*, they can now be better prepared for the historic opportunity provided by the European Next Generation funds: “We come armed with this information, knowing exactly what our housing stock’s renovation needs are.”

In order to continue moving forwards in the management of public data, Elena Sánchez wonders if institutions might be “more proactive” in terms of ensuring that grants are available to people who do not apply for them even though the Administration knows they are eligible.

Elena Sánchez notes another huge challenge when it comes to ensuring that information is transparent and accessible: “We must share housing issues with the general public in a simpler and digestible way that is not just for expert members of the public.” In order to achieve this aim, a few years ago the Basque Housing Observatory launched a blog with journalistic articles about the Observatory’s own reports and positions. This is supplemented by the publication of short information clips on specific topics on social media. These new channels, used with a more journalistic approach, have helped increase the Observatory’s media coverage. “We’ve had to leave the Observatory itself and create a website to enable people to access it in a less academic way,” he concludes.

“We must share housing issues with the general public in a simpler and digestible way that is not just for expert members of the public.”

Geohive, Ireland's digital housing data hub platform

Focusing on Europe, some countries, such as the Republic of Ireland, have developed cutting-edge digital tools to link and cross-reference housing data for use in public housing policy planning.

Ordnance Survey Ireland has developed an interactive geospatial platform called Geohive (airomaps.geohive.ie/dho) that links together various housing data records and uses mapping and geolocation systems to make them available to view by territory way (e.g. by zone or neighbourhood). This information includes demographic, census and

socio-economic data on the population, as well as information on housing policy planning and housing market trends. In addition, the data can not only be viewed but can also be processed. For example, users can extract tables or maps from the data they are interested in.

Dáithí Downey, Head of Housing Policy, Research and Development at Dublin City Council and Principal Investigator at the Dublin Housing Observatory, notes that the Geohive platform combines the need for transparency with the right to privacy. “All the information shared on the website is for open access and in compliance with the data protection legislation.”



The Dublin Housing Observatory has supported the development of this platform with tools and channels for the dissemination of this topic, including various information podcasts by people linked to the world of housing in different ways (such as the Administration, architects or social groups).

DÁITHÍ DOWNEY, Councillor
for Housing, Dublin:

“All the information shared on the website is for open access and in compliance with the data protection legislation”

The need for housing policy planning, an incentive to improve data management

Dublin City Council's decision to improve its data management through a cutting-edge platform such as this is the result of a prior reflection about the need to provide a common framework for the public planning of housing policies. In other words, a framework that lends consistency and helps develop the multilevel plans and strategies adopted by each of the various institutions (international, national, regional and local) with an impact on the city. Having and analysing data is a key factor when it comes to assessing how the guidelines for each plan can be adapted to each local setting.

Gaps between plans and regulations arise not just between strategies from institutions at different territorial levels but also between plans designed from the municipality itself. As Downey explains, three strategic plans with an impact on housing policy have been in place at the same time in Dublin alone (the Dublin City Local Economic & Community Plan 2016 – 2021, the Dublin City Development Plan 2022-2028 and the Dublin City Council Climate Action Plan 2019 – 2024). The City Council is using the Sustainable Development Goals (SDG) as a unifying element to make all their contents fit under a single umbrella.

As well as local plans, Ireland has the national *Housing For All* strategy, the country's first sustainable housing plan, with the capital, Dublin, as a key piece in its development. This strategy boasts a multi-year investment programme for 2022-2030 under which €4,000 million per year will be allocated to housing policies. The aim is to use this investment to create 300,000 affordable homes.

Dublin's case thus shows how digital technology-assisted data analysis helps plan public housing policies.

The Barcelona Chair in Housing Studies, the first inter-university programme of its type in Spain

The mere availability of data is not enough in itself to ensure that such data will be used to improve public housing policies. The data must be analysed and studied in order to draw useful conclusions to guide public managers in this area.

This is one of the needs that the new Barcelona Chair in Housing Studies aims to meet. It is a cutting-edge study programme to encourage training and research on public housing policies, as well as their dissemination and assessment, with an interdisciplinary approach. Its aim is to help improve and innovate in housing policies, bringing together into a single programme all the administrations with responsibilities in this area in Barcelona and Catalonia's four public universities.

The participants in this initiative are Barcelona City Council, the Generalitat de Catalunya, the Spanish Government, the Polytechnic University of Catalonia (UPC), the Autonomous University of Barcelona (UAB), the University of Barcelona (UB) and Pompeu Fabra University (UPF). The four universities, Barcelona City Council and the Generalitat de Catalunya, through the Catalan Housing Agency, have been involved in the programme since the

design stage, starting in late 2019, and the Ministry of Transport, Mobility and Urban Agenda joined later.

The agreement between all the parties involved was signed in November 2021, and its general aims were announced at the Barcelona Housing and Renovation Forum that same month. This was followed, on 28 February 2022, by an official presentation at the UPF's Ciutadella campus.

Josep Maria Montaner, professor of Theory of Architecture at the UPC and co-director of the chair, explains the aim of the initiative is "to promote interdisciplinary and applied research in the field of housing", coordinate existing research groups and provide spaces for the exchange of knowledge already held as a result of previous studies in this area. The study programme will get involved in both national and international research projects.

JOSEP MARIA MONTANER,
co-director of the chair:

"Its aim is to promote interdisciplinary and applied research in the field of housing"

It also aims to help provide training on various matters relating to housing from different perspectives and from the point of view of different disciplines. The plan is to create Spain's first official master's degree in housing, as well as offer postgraduate degrees, courses and workshops or academic conferences, among others.

Other core lines of action include advising public administrations on housing policies or sharing knowledge about this area with the public through more informative publications.

The chair aims to integrate the various areas of knowledge with implications on the conditions that affect access to housing (e.g. law, economics, architecture and urban planning, geography, sociology, communication, etc.). "The programme has a huge amount of potential thanks to its combination of interdisciplinary knowledge and the experience of the administrations that carry out housing policies. The ability to put theory and practice together gives it a very valuable potential," explains Judith Gifreu, Professor of Administrative Law at the UAB and joint director of the programme.

In Gifreu's opinion, the creation of this chair in Catalonia is the result of a housing policy and legislation innovation process whose origins date back to the 2008 financial crisis and the need for new ways to address the housing emergency. An example of this is the various laws approved by the Catalan Parliament at the initiative of social movements. These include, among others, Act 24/2015 against the housing emergency and energy poverty – or those that have followed it to maintain or increase large owners' social rental obligations (Act 4/2016, Decree 17/2019 or Act 1/2022, among others) – or the Act on the regulation of rental prices (11/2020), which was held to be unconstitutional in March 2022.

According to Gifreu, the new programme's aim is precisely to give new impetus to this innovation process by "identifying aspects to help promote in Catalonia practices that are already very widespread in other countries, such as temporary or shared ownership, *co-living*, industrialised development, new public-private

JUDITH GIFREU, co-director of the chair:

"The programme has a huge amount of potential thanks to its combination of interdisciplinary knowledge and the experience of administrations that carry out housing policies"

MONTANER:

"An agreement of this type had never been concluded before: there had been agreements between universities and the private sector or an institution, but an agreement with so many parties had never been done before"

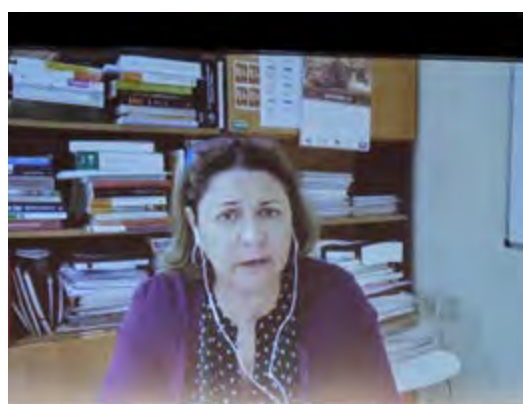
collaboration formulas to guarantee affordable housing or promote the circular economy, the use of sustainable materials in the construction of housing, and others".

Managing a study programme spanning several universities and areas of knowledge, as well as the public administration, has required over two years of work, starting in late 2019 and culminating on November 2021 with the signing of the agreement by all the parties involved. The process has had to overcome several hurdles: the difficulty in coordinating parties and reaching consensus, the interruptions caused by the pandemic, the changes of dean at the universities concerned and, in particular, the fact that an agreement to create an inter-university chair has never been concluded before in Catalonia. As Josep Maria Montaner, co-director of the Study Programme, explains: "An agreement of this type had never been concluded before: there had been agreements between universities and the private sector or an institution, but an agreement with so many parties had never been done before. The legal and economic departments have worked hard



for many months to agree on a model agreement”.

According to the agreement signed in November 2021 following a preliminary protocol signed the previous June, the chair is co-directed by the directors of all the universities involved in the project. Its co-directors are thus Judith Gifreu, Professor of Administrative Law at the Autonomous University of Barcelona (UAB); Josep Ferrer, Professor of Civil Law at Pompeu Fabra University (UPF); Josep Maria Montaner, Professor of Architectural Theory at the Polytechnic University of Catalonia (UPC); and Montserrat Pareja-Eastaway, Professor at the Department of Economics at the University of Barcelona (UB), and Juli Ponce, Professor of Administrative Law at the same institution. The Chair has its headquarters at all four universities, and its reference centre is the Barcelona Higher Technical School of Architecture (ETSAB), which is part of the UPC. The programme is coordinated by a joint committee which will be composed of the four universities' co-directors and representatives of the administrations involved.



The European Network for Housing Research Annual Conference is held in Barcelona

One of the most immediate challenges facing the new chair is the need to analyse the state of this issue, identifying existing research groups and the research studies already carried out, and to get involved in the major international housing research event that will be held in Barcelona in 2022. Barcelona is the city chosen by the *European Network for Housing Research* (ENHR) to host its Annual Conference between 30 August and 2 September. 🏡

“In Europe, there is a clear direct relationship between the existence of observatories and research spaces on the one hand, and the effective implementation of the right to housing on the other”

MIRELA FIORI AND XAVIER ANZANO (Official Master's Degree in Cities and Urbanism of the Open University of Catalonia (UOC))

Initiatives have started to emerge in Spain in recent years, particularly in Catalonia, to carry out further research and investigation into housing matters. The first steps are thus being taken to rectify our traditional shortage, which also applies to the amount of research carried out in this area and is closely linked to the general lag in public housing policies in Spain compared to the rest of Europe.

“In Europe, there is a clear direct relationship between the existence of observatories and research spaces on the one hand, and the effective implementation of the right to housing on the other,” explain Mirela Fiori, director of the UOC's official Master's Degree in Cities and Urbanism, and Xavier Anzano, an external lecturer in this programme. The master's degree, which provides cross-disciplinary education on housing and a comprehensive approach to the factors that affect this right all over the region, is particularly targeted at the administrations' technical and political staff. It was created at the UOC in 2006 and is the successor of the previous programme created on urban planner Jordi Borja's initiative in 1999 at the University of Barcelona.

The director and the external lecturer of this master's degree consider that good progress to promote housing training and research in Catalonia has been made in recent years in an attempt to catch up with European levels: “We have made a lot of progress in a short time:



5-10 years ago there was nothing but projects". They add that, compared to all the other autonomous regions, "Catalonia is the region whose Administration has had these research and statistical work spaces and bodies for some time".

To support this claim, they cite the Metropolitan Housing Observatory (O-HB) as an example that pre-dates the Barcelona Chair in Housing Studies. The O-HB was created in 2017 with support from Barcelona Metropolitan Area, Barcelona Provincial Council and the Generalitat de Catalunya. It is a supra-municipal observatory engaged in the study and analysis of housing data from the metropolitan area's various municipalities and the creation of a common system of indicators in this field. It also provides tools for the assessment and design of public policies in this field.

In Spain, social and urban planning statistical mapping tools that use the potential of digital technologies to cross-reference data affecting housing access conditions have been in place for only a few years, and "the Metropolitan Housing Observatory's presentations of such data are an example of this," highlight the director and the professor of the UOC's master's degree.

In their view, the innovation process to start creating housing research and analysis spaces

was triggered by the Catalan Right to Housing Act of 2007, under which bodies were to be created for this purpose in order to help plan policies in this field. However, they also attribute Catalonia's more advanced position than other parts of Spain in this regard to "the significant citizen movement for the right to housing originating in Catalonia," as shown by the PAH and the Tenants' Union, among others. Social movements, operating particularly through the DESC Observatory, which promotes research and publications on Economic, Social and Cultural Rights – including housing – have encouraged the conduct of studies in this field to supplement and compensate for data shortages in the official statistics.

All this preliminary work has contributed to the establishment of the Barcelona Chair in Housing Studies, which Fiori and Anzano believe will give "added value" to all the initiatives already being carried out to promote research in this area as a "setting for careful and high-quality discussion on, and development of, the right to housing".

Examples of other research centres and training programmes in the field of housing

IN CATALONIA

- .. Barcelona Metropolitan Housing Observatory (O-HB): www.ohb.cat
- .. Barcelona Provincial Council Local Housing Observatory: www.diba.cat/es/web/observatori-local-habitatge
- .. DESC Observatory: observatoridesc.org/es
- .. UNESCO Chair in Housing at Rovira i Virgili University (URV): housing.urv.cat
- .. Chair in Dignified and Sustainable Housing at the UPF Barcelona School of Management: www.bsm.upf.edu/es/catedra-vivienda-digna-sostenible
- .. Postgraduate Course in Housing Policies at Rovira i Virgili University (URV): housing.urv.cat/portada/docencia/postgrau-en-politiques-dhabitatge
- .. Metròpoli Master's Degree in Urban and Metropolitan Studies at the Barcelona Institute of Regional and Metropolitan Studies (IERMB): iermb.uab.cat/es/mastermetropoli-es/
- .. Official Master's Degree in Cities and Urbanism of the Open University of Catalonia (UOC): estudis.uoc.edu/ca/masters-universitaris/ciutat-urbanisme/professorat

IN THE REST OF SPAIN

- .. Housing and Land Observatory of the Ministry of Transport, Mobility and Urban Agenda: www.mitma.gob.es/arquitectura-vivienda-y-suelo/urbanismo-y-politica-de-suelo/estudios-y-publicaciones/observatorio-de-vivienda-y-suelo
- .. Basque Housing Observatory: www.etxebide.euskadi.eus/x39-ovhome
- .. Galicia Housing Observatory: www.observatoriodavivenda.gal
- .. Cantabria Housing and Land Observatory: www.observatoriovivienda.cantabria.es
- .. Zaragoza de Vivienda Chair at the University of Zaragoza: catedrazaragozavivienda.wordpress.com/acerca-de
- .. EMVISESA Housing Chair at the University of Seville: sevillabuenasnoticias.com/la-hispalense-crea-la-catedra-vivienda-emvisesa
- .. Housing Innovation Chair at the Polytechnic University of Valencia (UPV): calab.es/catedra-habitatge
- .. Chair of Housing and the Right to the City at the University of Valencia: catedrahabitatge.es/la-catedra
- .. Master's Degree in Public Housing at the University of the Basque Country: www.masterviviendapublica.com
- .. Master's Degree in Architecture in Collective Housing at the Polytechnic University of Madrid and the Swiss Federal Institute of Technology (ETH) in Zurich: www.mchmaster.com

IN EUROPE AND INTERNATIONALLY

- International Housing Observatory:
int.housing-observatory.com/about.html
- International Observatory on Social Housing:
internationalsocialhousing.org
- Housing Europe Observatory:
www.housingeurope.eu/page-91/housing-europe-observatory
- United Kingdom Housing Observatory:
uk.housing-observatory.com
- Dublin Housing Observatory:
www.housingmodeldublin.ie/about/dublin-housing-observatory
- Vienna's Housing Research Division: socialhousing.wien/tools/housing-research
- Housing Evolutions Hub:
www.housingevolutions.eu
- Housing Solutions Platform:
www.housing-solutions-platform.org/housing-solutions-platform
- European Observatory on Homelessness:
www.feantsaresearch.org
- London School of Economics (LSE) Cities:
www.lse.ac.uk/cities
- Lincoln Institute of Land Policy: www.lincolninst.edu/es/sobre-el-instituto-lincoln
- Institute for Housing and Urban Development Studies (IHS) at Erasmus University Rotterdam: www.ihs.nl

Conclusions



There are many possible solutions to guarantee the right to housing and its affordability, as well as many possible types of partnerships between the public sector and other social and economic agents to carry them out (such as public-private partnerships, public-community partnerships and others). Furthermore, the processes for the promotion not just of affordable housing but also of the improvement of the urban environment in which they are located must comply with the United Nations' Sustainable Development Goals (SDGs) for 2030 as regards environmental and energy sustainability, social inclusion and the improvement of people's health and well-being.

As we did at the start of this publication we set out the various challenges involved in increasing the amount of affordable housing, and below is a summary of our conclusions on how to address each of those challenges.



Possible ways to use data to plan housing policies

- .. Automating administrative processes to optimise the use of the large amounts of data held by the public sector to plan, implement and assess housing policies in each local setting. Information and Communication Technologies (ICT), and even AI bots, can also be used to process and analyse housing data, something that is already being done at the Basque Housing Observatory.
- .. Establishing administrative protocols to define how to combine the need for the transparency of public information with people's right to privacy from the start of institutions' data processing processes.
- .. Making progress in the breakdown of data by territory so that the situation of specific areas can be analysed in greater detail and more accurate local action plans can be designed.
- .. Cross-referencing more public data on socio-economic and demographic factors, the affordable housing stock or real estate market supply and prices by territory, among others, in order to draw conclusions that can be useful when it comes to planning public policies. The internet's potential can also be used for this purpose, creating online platforms that make it easier to cross-reference data. The Republic of Ireland's Geohive platform is a benchmark to be followed.
- .. Encouraging interdisciplinary research and investigation on housing and helping it improve public policies in this field. Spain still has few initiatives in this regard compared to other European countries, but their number is growing, particularly in Catalonia. Two great examples of this are the recently created Barcelona Chair in Housing Studies, which is the first inter-university chair in Spain that also involves the local, regional and national administrations, and the Barcelona Metropolitan Housing Observatory, which has been in operation since 2017.
- .. Informative and journalistic information on the various matters affecting the right to housing must be provided to the public at large. Housing involves all citizens, not just the expert members of the public.



Possible ways to make housing policies that cater not just to the most disadvantaged groups but to all citizens

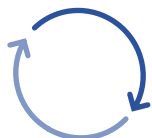
As well as putting in place emergency measures for the groups with the most socio-economic difficulties (such as help paying rent, information about social rental flats, etc.), public authorities must take action to expand the affordable housing stock for people who, in spite of being in more stable situations, are also struggling to access housing due to the gap between real estate market prices and wages. Such measures include:

- .. Renovating public buildings previously used for other things (such as industrial buildings or former hospitals or schools) so they can be used as affordable housing.
- .. Exercising the right of pre-emption, under which the Administration has a right of first refusal for any homes put up for sale, in order to use them as public rental properties.
- .. Carrying out real estate purchase programmes, in central and more gentrified urban areas where possible, in order to use the purchased real estate as affordable rental properties. This can help reverse Spain's traditional trend of putting social housing on the outskirts.
- .. Making buildings currently being used for other things (such as offices or tourism) available for use as affordable rental properties.
- .. Checking for misused properties (such as empty flats that could be made available as affordable rental properties, social housing that is being illegally sublet, etc.).
- .. In certain cases, considering whether there are reasons of public interest justifying the expropriation of homes from large owners and real estate companies, with the appropriate compensation, in accordance with the applicable legal framework in each case. The people's consultation held in Berlin on 26 September 2021 with the slogan "Deutsche Wohnen enteignen!" goes in this direction. In the consultation, 56% of voters voted to expropriate over 200,000 flats, 10% of the city's stock, from over 3,000 private housing companies so that they could be put to use as social housing. An expert committee is now studying how to carry out the people's wishes.
- .. Developing new affordable housing developments for the general population. Public developments can be combined with developments carried out under public-private or public-community partnerships (see Sections 4 and 5).



Possible ways to obtain enough affordable rental properties from the private market too

- .. One way to do this could be to enact laws and regulations on renting governing the rent control system such as those already in place in several European cities (including, among others, Paris, Berlin, Copenhagen and Barcelona). There can be many different systems, with many different combinations. The most common solutions involve maximum rent prices based on the rents charged for comparable homes on the market, or preventing owners from raising rent beyond inflation when re-letting a flat that was previously being rented out. Laws and regulations must also specify the types of owners they apply to – whether only large owners or also small ones – and define the threshold between them (in terms of number of properties owned).
- .. Another possibility is to use tax incentives to encourage owners to rent out their flats at affordable prices, something that generally works better for small owners.
- .. For holiday lets (short-term rentals), setting a limit on the amount of accommodation that can be provided by such properties in a city, particularly in its most central and gentrified areas; ensuring that flats used for this purpose are licensed to do so; and issuing sanctions for breaches. A good example of this is Paris, whose Court of Justice ordered an €8 million fine against Airbnb in July 2021 for failing to register with the municipal register tourist lets in the city listed on its website.
- .. Decentralising housing policy powers to make regional governments and city councils better able to address the impact of gentrification and rising housing prices locally. Some recent court judgments in both Spain and Germany show that the current legal framework and its interpretation by the two countries' constitutional courts (in the case of Germany, the Federal Court) makes it difficult for cities, regions and regional governments to put in place rent control measures. The Spanish Constitutional Court held the rent control legislation in place in Catalonia to be unconstitutional in March 2022. The German Federal Court did the same to the freezing of the rent threshold in Berlin in April 2021. In both decisions, the Court argued that the legislation encroached on the central Government's powers.
- .. Gradually increasing the amount of public and cooperative housing to the point that it has sufficient weight within the residential stock to counterbalance market prices. This is the case of Vienna, where half the residential stock belongs to these two types.



Possible ways to get the public and private sectors to work together to increase the affordable rental housing stock

In order to encourage partnerships between the Administration and companies to go in the direction of promoting affordable housing, we must change their traditional relationship in Spain, which falls under the “parasitic” model. This model leads to a transfer of public resources from the State to the private sector, as became clear during the real estate boom (1997-2007). An example of this is social housing being declassified and going into the free market. What we need to do now is transform this type of relationship into a symbiotic model in which the public and private sectors work together to achieve an aim that is in the public interest. This requires them to establish dialogue and networking processes to help overcome the mistrust and reservations that can also be found between the public and private sectors due to their differing interests and corporate cultures, which must be reconciled in order to enable them to work together on common projects. The following measures, among others, can help achieve this change of model:

- .. Starting plural dialogue processes between the Administration, the private sector, social promoters and the community that lead to minimum agreements laying down a common and stable framework for the affordable housing expansion goals.
- .. Forging alliances between the public and private sectors in the form of partnerships for the promotion of affordable housing. The joint venture solution exemplified by Habitatge Metròpolis Barcelona, which is owned by the public and private sectors at 50% each, can be exported to other large and medium-sized Spanish cities.
- .. Establishing a general legal and tax framework that helps establish partnerships and replicate public-private joint ventures for the promotion of affordable housing in other territories and other facets of housing policies (such as renovation or the management of the affordable rental housing stock).
- .. Encouraging companies to take part in public-private partnerships for the promotion of affordable housing, particularly those with an institutional investor profile, which are the most likely to go into this type of collaboration, as they seek low risk, have a long-term view, are not looking for immediate profit and can settle for more limited returns.
- .. Transfers of public land by administrations for the development of affordable housing through public-private partnerships.
- .. Making private capital and public resources available for such joint developments.



Possible ways to promote public-community partnerships to increase affordable housing

Public-community partnerships can be established between the Administration and social promoters (mainly housing foundations and cooperatives) or with other groups in the community, whether or not they are a formal organisation.

Barcelona has become the spearhead of public-cooperative partnerships for the promotion of affordable housing in Spain, and an agreement between the City Council and social promoters (ESAL agreement) has been concluded for this purpose. However, this practice is still in its infancy both in Catalonia and in Spain as a whole. Below are some measures to consolidate and scale up the model so it can one day account for a significant part of the housing stock.

- .. Including public-cooperative partnerships in administrations' strategic plans, as has already been done in the Barcelona Local Housing Plan 2016-2025.
- .. Facilitating shared governance and governability models between the Administration and social promoters to facilitate synergies and networking.
- .. Fostering partnerships with the various social promoters: assigned-for-use housing cooperatives, co-housing aimed at specific groups (such as the elderly, inter-generational housing, young people, women in difficult situations, single-mother households, etc.), "urban masoveries", housing foundations that promote social rent, and others).
- .. Transferring public land with building leases to housing foundations and cooperatives. In such arrangements, the Administration transfers land for long periods (in Barcelona this is currently 99 years), but always retaining ownership in order to prevent the medium-to-long-term loss of public assets.
- .. Making "dotacional" land available for cooperative housing, as is already being done with public developments.
- .. Making private land available for social promoter to create housing.
- .. Establishing local and supralocal legal and political frameworks regulating and facilitating public-cooperative partnerships.
- .. Establishing new metrics for public services that measure the social values provided by cooperative housing projects (quantifying their benefits in terms of creating new shared living models, reducing environmental impact due to the sustainability criteria taken into account in such developments, etc.).
- .. Increasing public and private funding, in the form of loans or non-repayable grants/subsidies, to carry out such developments.
- .. Encouraging more and more professionals from the various sectors that need to be involved in the development of housing (such as architects and engineers) to get involved in the projects resulting from public-community partnerships.
- .. Creating large social promoters that are able to substantially increase the amount of housing in this type of development. This is a long-term challenge for the ESAL agreement.

As to public-community partnerships with social groups other than housing foundations and cooperatives, there are still few experiences in our country. However, we can look at the practices of other countries to analyse whether we too could put them into practice in the future. The different types of public-community partnerships include:

- .. *Community Land Trusts (CLT)*: This is where a group of residents get together to collectively purchase a plot of land and build a block of flats on it. Each flat will then belong to the people living in that flat. CLTs were first conceived in the United States and have now spread to some European cities such as London or Brussels.
- .. Promoting participatory processes with the public to design public housing policies while remaining open to proposals from civil society.
- .. Fostering collaborative housing, particularly based on the renovation of old buildings that are no longer in use. This can involve housing cooperatives that bring their expertise to the renovation process. However, the key is to design participatory processes with the social groups that are to live in the resulting housing, so that their

contributions are an essential part of their design and of the rules that will govern their shared community living. For example, Bologna's Porto 15 initiative to convert a building in the city's historic centre into a collaborative accommodation complex for under-35s has been carried out with the involvement of the project's beneficiaries themselves.

- .. Involving the organisations that act on behalf of tenants in rent establishment and regulation processes, together with the Administration and the lessors' representatives, through so-called tripartite agreements, a model that is already in operation in the Netherlands, Sweden and Germany, among others. However, in order for this system to be implemented in Spain, more complete data on lessors must be obtained in advance. The Spanish rental market is still mainly made up of non-professionals, in a country with a traditionally strong ownership culture, and many small lessors remain hidden. This sector needs to become professional, and the lessors' representatives with whom a system of tripartite agreements could be negotiated must be clearly identifiable.



Possible ways to obtain funding for the promotion of affordable housing

- .. Making private capital available for the development of cooperative housing and social housing foundations, not just from ethical finance institutions – which are already granting loans in Catalonia for this purpose – but also from conventional banks like in other countries (such as the Netherlands or Switzerland). We must also make private capital available for renovation and industrialisation processes that help increase the affordable and sustainable housing stock, whether this comes from banks, real estate companies or companies providing specialist energy services, among others.
- .. Increasing public funding for this purpose through various channels, such as loans or non-repayable grants and subsidies.
- .. In order to help social developers develop housing, the Administration can provide guarantees to help them secure private loans. Part of the funding for such developments can be provided in the form of land transfers, tax allowances or exemptions from certain fees or rates until the private loans secured to carry out the developments have been paid back.
- .. Land can be used to obtain funding too. According to the economist and housing expert Alejandro Inurrieta, a tax on land in Spain could raise an extra €100 billion, which could be used for housing policies. The UK or Denmark have tax rules to help achieve this goal.
- .. In addition to public and private resources, self-funding initiatives can be promoted by housing foundations and cooperatives and communities themselves. For example, housing cooperatives in the Netherlands have designed a system of guarantees that helps them secure bank loans for their developments. In Switzerland, housing cooperatives have developed shared financial tools to help them obtain guarantees so they can obtain bank loans.



Possible ways to increase the amount of affordable housing using the city's existing buildings

- .. Promoting the renovation of public and private buildings so they can be used for affordable housing, applying environmental, energy and social sustainability criteria and to foster the health and well-being of the people who are to live there. The European Next Generation funds and other funds from the *Renovation Wave*, another EU initiative in line with the aims of the European Green Deal, as well as the European Investment Bank (EIB), can help accelerate energy renovation processes.
- .. Identifying available land for affordable housing in areas in which urban regeneration processes are being promoted (setting a minimum percentage of land that must be earmarked for this purpose).
- .. Converting industrial land – land located in former industrial areas – into land for affordable housing.
- .. Establishing specific land classifications to guarantee the allocation of a significant percentage of new residential developments to affordable housing. Vienna established a new land classification for this purpose in 2019. At least two thirds of homes built on land with this classification must be allocated to public and social housing.
- .. Ensuring that a minimum percentage of homes in new developments or large housing renovations on vested urban land are used for social housing. This is the measure put in place in Barcelona (with a minimum percentage of 30%) in late 2018 as a result of the work of social movements.
- .. Placing limits on the rent chargeable for rental homes built on public land.
- .. Establishing public banks of land for affordable housing.
- .. Adding new storeys to existing buildings to provide additional homes.



Possible ways to promote and renovate affordable housing while minimising environmental impact

Below is a list of some of the steps that can be taken to minimise the environmental impact of newly built housing:

- .. Adapting the building to, and integrating it with, the conditions of its natural habitat in accordance with bioconstruction criteria.
- .. Choosing sustainable building materials such as stone, clay bricks, earth blocks and straw bales, among others.
- .. Minimising waste and promoting the recycling of any waste resulting from the construction work. We must promote a circular economy model in accordance with “the three Rs” (Recycling, Recovery and Reuse).
- .. Taking account of the need for good thermal insulation, adequate natural ventilation and a good use of natural light in the design of buildings.
- .. Taking care to ensure that homes have renewable energy sources (such as solar thermal and photovoltaic energy) and equipment and household appliances that make it possible, and fostering decarbonisation.
- .. Promoting the industrialisation of construction processes so that the various modules making up a building can be made in a factory and then assembled on site. This reduces energy consumption and the amount of waste on site, as well as construction times, because processes that have to be carried out consecutively under the traditional system can be carried out at the same time. Making the modules in a controlled industrial

environment makes it possible to guarantee a better quality of construction. Technology can make these processes easier, as a digital prototype of the home can be developed and used to guide the process in the factory. It also makes it easier for the various players involved in the process (such as contractors, architects and industrialists) to coordinate their work. One of the main challenges when it comes to scaling up industrialisation, a practice that is still in its infancy in Spain, is the need for more investment and a more flexible model for housing contract tenders than the traditional one that can be used for public developments. Designing public tender processes that facilitate collaboration between contractors, architects and industrialists to a greater extent and take greater account of environmental and social sustainability criteria and reduced construction times when rating bids – rather than taking only financial matters into account – can help achieve this.

As for the renovation processes, these are crucial when it comes to improving buildings' sustainability and energy efficiency. The main characteristic of Spain's residential stock is its age (over half of the homes in the country are over 40 years old), which results in poor energy efficiency. Remodelling the housing stock therefore provides an opportunity to rectify this and make these homes comply with the sustainability criteria mentioned above in relation to new homes.



Possible ways to promote and renovate homes that meet social needs and guarantee people's health

The pandemic, particularly with each lockdown, has shown the importance of ensuring that homes and their environment fulfil a set of conditions that ensure people's health and well-being. In a post-Covid setting, we must use what we have learnt to take greater account of public health in architecture and urban planning. The following lines of action can be carried out as regards buildings:

- .. Taking account of the many factors that affect people's health and well-being and contribute to homes' social and environmental sustainability in construction and renovation processes. In addition to the energy efficiency and savings mentioned in the previous section, we must take into account factors such as humidity levels, ventilation and lighting conditions, whether conditions are healthy, the availability of outdoor spaces (such as balconies and terraces), accessibility, whether spaces are suitable for the type and number of people living in each home and the different types of family, etc.
- .. Avoiding and addressing "sick building syndrome", the set of diseases that can result from factors relating to the way buildings are designed (such as electromagnetic charges, static electricity, low humidity or poor ventilation, among others).
- .. In the case of renovation processes, the ideal option would be to analyse the specific situation of each building in advance and then apply and prioritise the necessary steps in each case.
- .. Working to ensure that future amendments of the Technical Building Code increasingly include a comprehensive perspective regarding the conditions to be met by buildings to ensure social and environmental sustainability and the health of their users or residents.



Possible ways to promote healthy and sustainable urban models

In addition to improving living conditions in people's homes, in a post-pandemic world we must move decisively towards healthy and sustainable urban models. The barrier between urban planning and construction must come down, and residential buildings and their surroundings must be planned together to ensure that the resulting whole achieves the goals of social and environmental sustainability and health. The practice known as *"tactical urbanism"*, which has been carried out in particular following the pandemic in Barcelona and other European cities, has served to start processes with this aim, particularly to reduce traffic in streets, but in the form of provisional measures that must now be extended and made permanent. This requires core lines of action such as the following:

- .. Continuing to add traffic-calming measures in public spaces with structural urban planning solutions to guarantee more space for pedestrians and cyclists.
- .. Improving public transport and reducing the need for private motorised travel, promoting a city model with a mix of uses. Access to the various services and establishments that people need in their daily lives must be guaranteed in every part or neighbourhood of the city. Although an advanced mix of uses has been achieved in Barcelona and its metropolitan area, economic activity is still mainly located in certain areas, resulting in people travelling in private motor vehicles. We must therefore work on decentralising economic activity in our area.
- .. Improving other aspects to do with the environmental and social sustainability of urban spaces, moving towards the eco-neighbourhood model. In eco-neighbourhoods, construction and urban planning are seen as part of a single system

that must overall meet certain environmental, energy, social and health sustainability levels. Two leading examples of eco-neighbourhoods in Europe are Vauban on the outskirts of Freiburg (Germany); and EVA-Lanxmeer in Culemborg (the Netherlands).

- .. Involving citizens, the social fabric and the private sector in the shared challenge of promoting healthier and more sustainable urban habitats, as this cannot be done by the public sector alone. This requires greater awareness of this aim by the public and all the social and economic players.

In short, our conclusion is that there is no single solution to the need to increase the amount of affordable housing. Specific solutions must be decided on when designing each local action plan, in accordance with the needs and context of each area and based on a previous diagnosis based on the available data. Using as our model the good practices seen in various European countries (such as Austria, the Netherlands, Switzerland and Germany), which are decades ahead of us in this field, can help us drive innovation in housing policies in our local area (with public-private and public-community collaborations, regulating the rental market, funding, energy renovation, sustainable and industrialised construction, etc.). Barcelona city is working on this, driving change in housing policies all over Catalonia. However, we must continue to persevere. Due to the use of housing as a commodity in global markets, compounded by Spain's historical deficits, we must get public, private, social and community players to pool their efforts to enhance existing housing policies and explore new possible actions. We hope that the ideas set out in this publication will contribute to the debate on the path to be followed from now on.

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