Politecnico di Milano

School of Architecture, Urban Planning and Construction Engineering and School of Industrial and Information Engineering



Master Degree in Management of Built Environment

The relationship between Social Housing and urban regeneration.

A mapping of projects and experiences in the city of Milan

ADVISOR: Professoressa Angela Silvia Pavesi CO-ADVISOR: Dott.ssa Genny Cia STUDENT: Alessandro Morlacchi, matriculation number 968551 ACADEMIC YEAR: 2022/2023

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ABSTRACT

[ITA]

Questa tesi si pone l'obiettivo di indagare la relazione e l'impatto degli interventi di Housing Sociale nei progetti e nei programmi di rigenerazione urbana.

Il lavoro di ricerca ha previsto una prima parte di literature review sul tema dell'housing sociale in Europa e un approfondimento in contesto nazionale, circoscrivendo l'ambito definitorio, le caratteristiche, gli aspetti procedurali e dimensionali del settore. La ricerca riporta anche dati dimensionali rispetto alla domanda di alloggi sociali espressa dalla cosiddetta "fascia grigia".

La seconda parte della tesi si è concentrata sulla mappatura e sull'analisi di progetti di rigenerazione urbana, all'interno della città di Milano, nei quali fossero presenti interventi di housing sociale. La mappatura ha fatto riferimento all'atlante dei progetti di rigenerazione urbana realizzato dal Comune di Milano. L'analisi dei progetti ha previsto la definizione di una scheda *ad hoc* che oltre a contenere i dati identificativi del progetto (tra cui localizzazione, stato di avanzamento del progetto, promotore, finanziatori, importo dell'investimento, ecc.) ha evidenziato alcuni parametri caratterizzanti degli interventi come per esempio: il le funzioni insediate, i target di beneficiari, il partenariato pubblico-privato messo in campo.

Questa prima mappatura – sebbene nelle peculiarità dei progetti di rigenerazione urbana analizzati - ha evidenziato come l'inserimento di interventi di housing sociale contribuisca in maniera significativa all'organicità dell'intervento di rigenerazione, tra gli altri: il mix funzionale si arricchisce e si diversifica grazie all'inserimento di servizi pubblici e di pubblico interesse – diversificando l'offerta, a favore di un ampliamento del mix sociale che si apre e include fasce di popolazione - che nelle logiche di mercato - sarebbero escluse.

[ENG]

This thesis aims to investigate the relationship and impact of Social Housing interventions in urban regeneration projects and programs.

The research work included a first part of literature review on the theme of social housing in Europe and a deepening in the national context, circumscribing the scope, characteristics, procedural and dimensional aspects of the sector. The research also shows dimensional data regarding the demand for social housing expressed by the so-called "grey band".

The second part of the thesis focused on the mapping and analysis of urban regeneration projects, within the city of Milan, in which social housing interventions were present. The mapping referred to the atlas of urban regeneration projects carried out by the City of Milan. The analysis of the projects provided for the definition of an ad hoc card that, in addition to containing the identifying data of the project (including location, progress of the project, promoter, financiers, investment amount, etc.) highlighted a number of parameters characterizing the interventions, such as: the functions set up, the targets of beneficiaries, the public-private partnership implemented.

This first mapping - although in the peculiarities of the urban regeneration projects analyzed - highlighted how the inclusion of social housing interventions contributes significantly to the organicity of the regeneration intervention, among others: the functional mix is enriched and diversified thanks to the inclusion of public services and public interest - diversifying the offer, in favor of an expansion of the social mix that opens up and includes population groups - that in the logic of the market - would be excluded.

INTRODUCTION

The development of Social Housing hinges on the hypothesis that in the face of a progressive affirmation of a housing policy more diversified in terms of supply, accompanied by the promotion and management of public interventions or in public partnership-private initiatives are undertaken to meet the housing demand of all those who, also because of the particular economic crisis conditions in which our country are concerned, increasingly frequently exposed to housing risk but do not yet have the economic characteristics of "poverty" and "social vulnerability" to access public housing (Bronzini, 2014).

The Social Housing, in helping to give a response to the emergency home, provides new housing for rent calmierati, aimed at those intermediate social categories, the so-called "gray band", which is unable to meet their housing needs on the market, for economic reasons or the absence of an adequate offer, and at the same time, does not present the conditions for being able to benefit from public housing. If once the imperative of housing policies was to give a home to workers who moved to the city because of the economic boom, nowadays the needs are more complex and specific: the aforementioned "gray band" is that part of the population with difficulties, permanent or temporary, to access the private real estate market; the tool of social housing has been specifically designed for the latter housing need, or temporary type, which precisely because of its temporary nature is more difficult to intercept and combat. Social housing is aimed, in fact, at that intermediate population group that is located in the lower part of the so-called middle class, right on the border with the situations of economic hardship that affect the lower classes. Therefore, moving towards the "penultimate" of the social scale, the tool of social housing wants to counter the progressive and increasing worsening of living conditions that would increasingly increase the last segment of the population.

In the so-called grey belt fall population groups such as: young low-income couples, single-parent families, the elderly, students, off-site employees, immigrants.

This thesis is divided into four chapters.

The **first chapter** presents the theme of social housing at both European and Italian level, analyzing its definitions, characteristics, procedural and dimensional aspects, also reporting dimensional data with respect to the demand for social housing expressed by the so-called "grey band".

The **second chapter** introduces the theme of urban regeneration, describing its characteristics, the types of intervention related to it and the important link that this has with social housing, which makes the latter more than a simple housing solution, as a medium with a strong urban role to redevelop entire cities.

The **third chapter** introduces the work of mapping the thesis, outlining the methodology, criteria and tools used to complete it.

The **fourth chapter** is the focus of the thesis, containing the analysis of several case studies chosen to analyze the effect that social housing works have on the urban fabric. The choice of the case studies fell on Milan, a city in deep mutation and strongly attractive, also at international level, where the most concentrated interventions of new construction of Social Housing, last and most recent formalization of the so-called "public city", understood as valid elements of "virtuous densification" not only of volumes, but also of uses, meanings and sociospatial relations. Interesting from the point of view of the research carried out, it is above all the possibility that these new buildings can at the same time be interventions aimed at regenerating wider parts of cities with new impulses, through planning attentive to new criteria of quality and liveability, and that offer, in addition to housing, specific local services and collective spaces adapted to the needs of a changed and changing society, through an elaborate social project, as well as urban-architectural.

Finally, the **conclusions** that contain some reflections on the results of the thesis and its possible future developments that await it.

Chapter I – The urban role of Social Housing

1.1. THE DEFINITION OF SOCIAL HOUSING

The first step in the development of this thesis lies in tracing the scientific literature on the definition of Social Housing - umbrella term with multiple meanings - to its founding principles.

As will emerge from the discussion, at European level there is no single meaning for Social Housing. The term is generally used to refer to various types of housing provision that respond to administrative procedures rather than market mechanisms. Usually two processes have taken place in parallel in EU countries: the decentralisation of responsibility for housing policies, as well as the ownership of public real estate by municipalities, and the privatisation of securities to give away prices (Pittini, 2012).

Before going into the various steps of a social housing design, it is essential to clarify any doubts about the terminology and key concepts that will be used in the analysis. This clarity on terminology is not a negligible element because even today, especially in Italy, we see a terminological confusion regarding the issue of social housing that leads to a disorder even in actions (Pozzo, 2012).

The following is a summary of the European framework that uses Cecodhas¹ as a source, subsequently, the national context is deepened by referring to the Social Housing Manifesto of 2011 drawn up on the occasion of the first meeting of the tenth edition of UrbanPromo².

1.1.1. THE DEFINITION OF SOCIAL HOUSING IN EUROPE

To clarify what is meant in Europe by Social Housing the definition of Cecodhas is presented, trying to provide an explanation of the term that summarizes the traits common to all European countries with regard to Social Housing. In fact, Cecodhas, using an English term, has tried to incorporate in the definition all the different nuances that the European states give to Social Housing, understood as Social Residential Housing, the result of a ten-year history of national housing and social policies. Cecodhas (2007) defines Social Housing as:

¹ CECODHAS Housing Europe, founded in 1988, is the European Federation of public, cooperative and social housing, a network of 45 national and regional federations that bring together 41,400 suppliers of public, voluntary and cooperative housing in 19 countries. Together they manage more than 27 million homes, about 12% of existing homes in the EU.

² UrbanPromo is a conference organized by the Istituto Nazionale di Urbanistica (INU, National Urban Planning Institute), Urbit and promoted by the Compagnia di San Paolo, Ance, ANCI (Associazione Italiana Comuni Italiani, Italian Association of Italian Municipalities), Social Housing Foundation, Cassa Depositi e Prestiti Investimenti Sgr, From the Fondazione Cassa di Risparmio di Torino and the Fondazione Cassa di Risparmio di Cuneo, from Acri (Association of Foundations and Savings Banks) from Legacoop Abitanti and from Federcasa. During the editions of urbanpromo - held over the years - the theme of social housing was also addressed and addressed in its relationship with urban regeneration. For further details see http://www.urbanpromo.it.

«a set of housing and services, actions and tools for a user who is unable to meet their housing needs on the market, for economic reasons and for lack of an adequate supply; a set that promotes the formation of a dignified housing and social environment, in order to strengthen their housing and social status».³

The label of Social Housing thus becomes very broad and general, useful to include all the national specificities. The common elements at European level on Social Housing are the idea that it pursues a universal aim, that is to broaden the satisfaction of the right to housing, and that it addresses a target with specific socio-economic conditions and vulnerability. The nation states retain wide discretion in defining the legal status of the homeowner, the rental scheme, the financing methods, the access conditions of the beneficiary population and the service providers (Susanna, 2016).

The term Social Housing refers to a type of real estate and urban planning that consists in guaranteeing rental housing to individuals and households of the middle class whose income is not sufficient to purchase a property, but too high to access social housing solutions⁴. Social Housing is usually regulated by the government and managed by public agencies or non-profit organizations through the use of public and/or private funds⁵.

According to the Second Biennial Report on Social Services (European Commission, 2010), Social Housing means:

«The development, rental/sale and maintenance of affordable housing, as well as their allocation and management, which may also include the management of residential complexes and neighborhoods. The management of Social Housing complexes can involve several social aspects, such as the management of care services or debt management of low-income families».

Starting from this last definition it is possible to identify the constituent elements of Social Housing within the debate of the European Union (De Luca *et al*, 2009):

- the strong link with public policies at local level, either through direct supply from municipalities or from independent suppliers acting as partners of local housing and social policies;
- security of possession, unlike short-term lease contracts, which in some cases are typical of the private rental industry.
- the mission of social housing providers is to provide decent housing that meets ever higher quality standards;
- accessibility and rules for the allocation of housing.

³ Cecodhas (2007), *Housing Europe 2007: Review of social, co-operative and public housing in the 27 EU member states*, European Social Housing Observatory Pubblications, Brussels.

⁴ M. Bronzini (2014), Nuove forme dell'abitare. L'housing sociale in Italia, Carocci, Roma.

⁵ A. O. Oyebanji, Liyanage C., Akintoye A. (2017) "Critical Success Factors (CSFs) for achieving sustainable social housing (SSH)", *International Journal of Sustainable Built Environment*, Volume 6, Issue 1, pp. 216-227.

1.1.2. THE DEFINITION OF SOCIAL HOUSING IN ITALY

As regards, however, the use of the term in Italy, the situation is complicated by the absence of a clear definition of social housing. In fact, at the normative level, we never talk about social housing defining its main characteristics, while the term has become part of the urban and social lexicon for many years (De Luca *et al*, 2009).

This has led to a disconnection between the non updating of Italian legislation in this field and the spread of terminology linked to practices already present in the past. As is often the case in Italy, the legislative regulation of a phenomenon occurs after the development of the phenomenon itself. This leads to confusion and ambiguity that still today the term social housing is not used with full conviction, resulting in an under-use of practices in most of the Italian regions, while, on the contrary, it is routine for other regions. If we analyze the legislation, then, we must merge two decrees to get to define social housing according to the common meaning put into circulation by expert urban planners and social sector (Rivolta and Camerano, 2014).

The literal translation of Social Housing refers to the concept of "alloggio sociale", named in the legal text of the Decree of 22 April 2008 where it is defined (art.1): "social housing means a permanently leased housing unit which fulfils the function of general interest in safeguarding social cohesion and reducing the housing hardship of disadvantaged individuals and households, that are not able to access the rental of housing in the free market". This also includes housing made or recovered by public and private operators, with the use of public subsidies or facilities - such as tax exemptions, allocation of land or buildings, guarantee funds, urban planning facilities - intended for temporary lease for at least eight years and also for property (Chamber of Deputies Studies Service, 2014).

Social housing is an essential element of the Social Residential Housing system (Edilizia Residenziale Sociale, ERS) consisting of all the housing services aimed at satisfying primary needs (www.altalex.com, 26 June 2008).

The Social Housing Service is provided by public and private operators primarily through the offer of rented housing to which the prevalence of available resources must be allocated, as well as support for access to home ownership, by pursuing the integration of different social groups and contributing to the improvement of the living conditions of the recipients (Susanna, 2012).

Social Housing, as a service of general economic interest, is an additional urban standard to be ensured by the free disposal of areas or housing, on the basis and in the manner established by regional regulations. This definition contains the main elements of what since 2008 is meant by social housing in Italy. First, social housing is incorporated into the services of Social Residential Housing (ERS), not to be confused with Public Residential Housing (Edilizia Residenziale Pubblica, ERP), The European Commission's proposal for a Council Directive on the approximation of the laws of the Member States relating to the approximation of the laws of the Member States relating to the approximation of the laws of the Member States relating to the approximation of the free states relating to the free s

movement of persons. With the aim of reducing housing hardship, the recipients of the projects, therefore, are well defined by this decree that addresses an intermediate population group, which the ongoing economic crisis continues to increase (Poggi, 2013).

We are talking about a building unit, built from scratch or recovered thanks to the renovation of existing houses and managed by public and private operators. The increasingly sought-after openness to the private sector and the novelty that marks a break with the policies adopted so far. In fact, with the creation of a new demand, as specified above, which is located in an intermediate area between the private real estate market and ERP (Public Housing), it was necessary to further open the sector to different actors since the public, As a result of the continuous cuts it has undergone and is undergoing, it can no longer bear the costs of building new housing and of maintenance or restoration of existing ones (Poggi, 2013).

The term Social Housing has begun to circulate in the circles of the actors of this type of policy with the desire to create, starting from the introduction of a new terminology, a break with the previous approach of the policy area in question⁶. This break is determined by the will to respond with appropriate tools to a different housing demand that the economic, labor and social transformations that have affected our society, especially since the 2000s, have produced. In fact, if before the imperative of housing policies was to give a home to workers who because of the economic boom moved to the city, now the needs are more complex and specific.

There are currently two different types of housing need: the first "structural", within which that segment of the population fits, increasing due to the progressive dismantling of the Welfare State, with a permanent difficulty in accessing the private property market; the second "temporary" that includes those who for temporary reasons of precariousness are unable to find accommodation in the free market. The tool of social housing has been specifically designed for the latter housing need, that is, of a temporary type, which precisely because of its temporariness is more difficult to intercept and contrast. Social housing is aimed, in fact, at that intermediate population group that is located in the lower part of the so-called middle class, right on the border with the situations of economic hardship that affect the lower classes. Therefore, moving towards the "penultimate" of the social scale, the tool of social housing wants to counter the progressive and increasing worsening of living conditions that would increasingly increase the last segment of the population (Rizzini, 2013).

The contents of the tenth edition of UrbanPromo - which only since 2011 has also dealt with issues of social housing - have been fundamental to enter the current debate on the development of social housing in Italy. In 2011, during the workshops linked to this first meeting, thanks to the help of over 600 operators and experts in the field, we arrived at the so-called "Manifesto of Social Housing" The European Commission's Green Paper on the Environment, Public Health and Consumer Protection sets out a series of proposals for action in this field.

⁶ Plebani F. (2011), *Housing sociale, politiche abitative e fattore tempo. Spunti dal e per il territorio lombardo*, IRER, Milano.

It is considered important and useful to introduce the multidimensionality and multifunctionality of social housing projects in Italy, to present the "Manifesto of Social Housing" (2011). In this dense list there are all the aspects that a social housing project should respect in order to produce the quadruple sustainability: economic sustainability, environmental sustainability, urban sustainability and social sustainability.

Town planning. Use the urban plan as an infrastructure of urban policies and housing and, in this context, ensure the development of Social Housing along paths of environmental sustainability and protection of the territory, giving priority to the opportunities for the recovery and residential reuse of historic centres, abandoned production areas or, in any case, degraded building complexes.

Urban integration. Avoid the urban formation of residential "islands" characterized by excessive uniformity in the design, construction and use, and aim instead to create interventions characterized by a functional mix and integrated into the urban context in which they are located.

Housing needs and priorities. Define the priorities for action on the basis of an in-depth analysis of existing and projected housing needs, with particular attention to demand from the population groups with lower spending capacity, in order to use the available resources effectively and fairly and in line with the nature of the resources.

Supply adherence to demand. To ensure that the evolution of the characteristics of housing demand is matched by an offer able to grasp its complexity and to respond through a wide range of localization solutions, the regimes of use, the articulation of rents and prices, building types and social services related to housing.

Lease market. Focus supply policies in urban areas on the production and management of rented housing, especially for the weaker segments of demand, also expanding the rental market through the identification of new economic actors and operational tools.

Architectural quality. Design interventions with high levels of architectural, functional and technological quality, in the face of low costs of construction, maintenance and management, also through the spread of design competitions.

Social management and cohesion. Develop models of housing and settlement management (participation of inhabitants, social support, forms of cohabitation, urban security, services) aimed at promoting social integration and cohesion, the empowerment of inhabitants, the preservation of heritage quality.

Complementarity between operators. To encourage the creation of situations of complementarity and integration of skills between public, private and third sector operators, while in a competitive framework as regards the allocation of public real estate and financial resources.

Taxation. To use the tax lever: in favor of the House Companies, guaranteeing the partial restitution of the resources invested; in favor of the public and private operators and the users, adopting reduced rates of Vat for the social housing in phase of construction and for the rent; In contrast, it penalises those who maintain unused housing.

Ethical real estate funds. Enhance the system of ethical performance real estate funds to help respond to the growing housing problems of families through the enhancement of the types of offerings that are peculiar to this tool and the increase in the allocation of social housing, in particular of those leased.

Monitoring of outcomes: Monitoring the effectiveness of policies and programmes, implementation and management processes, spreading good practice.

In the "Social Housing Manifest" there are elements related to urban planning such as the importance of urban planning, which must make and find space for these projects, attention to urban integration between different territorial contexts of reference (centre/periphery, district/city) and the architectural quality of the buildings increasingly more technological and functional. There are also elements to understand the housing needs and priorities on the territory, the adherence of supply to demand, the use of the rental market and a revaluation and re-use of the existing public housing stock that meet the purpose of social housing projects to offer houses. There are elements that refer to the social component of these projects (social management and social cohesion); there are elements of an economic type, that indicate in the definition of a new taxation and in the creation of ethical real estate funds the way to follow. Finally, the actors involved are presented who come from both the public and the private sector and belong to different spheres of competence.

To summarize, Social Housing is therefore a type of intervention that aims to develop in an integrated manner various project dimensions involving many actors and making possible the implementation of redevelopment of the existing building or construction exnovo, new types of housing with the following characteristics:

- diversification according to user needs;
- flexibility of spaces;
- usability;
- presence of integrated services.

As already mentioned, Social Housing is aimed at different categories of users who generally have difficulty in finding accommodation in the free market of cities (students, immigrants, the elderly, young couples, at risk of exclusion)where the pressure of market prices tends to alienate above all social groups with medium-low income but still too high to access the Public Residential Housing (ERP). Unlike this, social housing maintains a more flexible and project-oriented approach, more extended than social targets, involved operators, applicable canons as well as service and community design⁷.

For this reason one of the characteristics that housing must have is flexibility and the ability to adapt to different needs. A second peculiarity is given by the equipment connected to the residences, such as the service spaces for condominium use. These spaces are intended for families living in the building, so they must be aimed at all condominiums, from children to the elderly, from families to singles. Even these spaces must adapt to the needs of different users, who have different needs due to different age

⁷ Micelli E., Picchioluto E. (2010), *Dalle Norme al rischio gestione: una bussola per orientarsi nel Sistema Fondi Immobiliari*, Dossier n. 19, Edilizia e Territorio

groups. These spaces, for example, may include, for example, a concierge service, a listening centre, a laundry or spaces for school support. Finally, a last category of services is represented by the service structures to the neighborhood and the city that relate the intervention of social housing with the context in which they are inserted. It is also fundamental to the relationship with associations and local realities that not only allows you to increase the chances of success of the services activated, but also to establish a positive relationship with the local population leading to find points of reference within the project.

This category of services includes extensive intervention possibilities, and can be further divided into subcategories. The first group includes personal and community services such as crèches, day care centres, reception centres for foreigners, polyclinics, but also sports facilities and leisure facilities. The second group instead provides all the functions compatible with the residence such as commercial spaces, restaurants, bars and public establishments. Finally, the last group includes residential care facilities such as minihousing for the elderly, for solidarity families or community housing ie collective residential facilities in which guests are able to manage with relative autonomy aimed at single mothers, mild disabled, community for the reception of minors⁸.

The integration between residence and other services aims to make the new residential settlements, not of places "dormitory", but of reception in which populations different in age, culture and social background find both housing response, It is a mutual integration. This multifunctionality, given by the integration between residence and services, allows you to live the new spaces with different activities and continuity during the day (ground floors, green spaces, spaces of relationships), creating active and vital "villages".

1.1.3. PUBLIC RESIDENTIAL HOUSING (ERP), SUBSIDIED HOUSING AND CONTRACT HOUSING

As previously specified, it is important not to confuse the Social Residential Housing (ERS) of which social housing services are part, with Public Residential Housing (ERP). In fact, the latter, also known as economic or social housing, was intended to build houses, leased or in property by public tender, to people in social, economic and family difficulties at social rent, That is, according to an economic criterion much lower than that established by the rules of the free market and proportional to income. It was one of the services that the State had to offer to its citizens for the full achievement of the function of welfare state (Welfare State).

Tracing a brief history of the ERP, we begin by presenting the Luzzati Law of 1903, which founded the Autonomous Social Housing Institutes (Istituti Autonomi Case Popolari, IACP, since 1938 on a provincial basis) to manage the demand for housing. The most important moment in the history of the ERP is certainly the second post-war period, the period of reconstruction, during which it becomes a priority for the Italian State to be able to offer housing to those who do not have it. In fact, it is from 1949 to 1963 that two

⁸ Susanna A.(2016). L'Housing sociale come opportunità di trasformazione urbana e sociale. Cdp Investimenti SGR.

INACasa Plans are implemented (the first most famous called Fanfani Plan from the name of its promoter minister) managed by the funds of a specially created organization, the INA-Casa Management, established at the National Insurance Institute (INA). From 1963 the management will pass to the Gescal funds (acronym of GEStione Case Lavoratori, Workers Housing Management), always created to continue to finance public housing projects thanks to the contributions of workers, companies and the State.

Since 1996, the Gescal funds have been abolished and with this disappearance, together with the transformation of the IACP into Companies or Agencies in the same year, It can be said that this type of housing policy and public financing based on the mass construction of entire neighborhoods of subsidized housing, strongly wanted and largely financed by the State has ended (De Stefano, 2017).

What remains of the ERP is certainly a massive building stock, but not enough to meet nowadays demands, other than poorly maintained, sometimes sold off and managed by the various companies or territorial agencies that define the regional access requirements. Since the 1990s, therefore, we have been witnessing in Italy a disinvestment of public financial resources in the building sector, with the consequent incentive to open up to private parties. This has resulted in the development of what is called conventioned buildings, That is, the building that, thanks to specific agreements implemented by the public for the benefit of various private parties, builds housing at moderate rent (Antonini, 2017).

Thanks to these agreements, in fact, the public sector is partly able to intervene economically by offering facilities to construction companies, owners who want to rent accommodation, tenants who are renting or those who want to buy a house. This is, therefore, that there is more and more housing at calmed rent, agreed, facilitated, agreement thanks to tools provided by the public to private parties. It is in this last phase of housing policies that, as you can already guess, the social housing services in Italy are inserted that since the beginning of the 2000s open a new road still too little beaten of experimentation around the theme of housing (Antonini, 2017).

1.2. THE DIMENSIONS OF THE SOCIAL HOUSING SECTOR

1.2.1. SOCIAL HOUSING IN EUROPE

As explained above, Cecodhas has provided a common definition to all European countries of Social Housing, while also investigating national specificities. Each country therefore has its own history, its practices and its actors involved with regard to the services of Social Housing.

For a macro differentiation of the intervention models, in Europe we can identify mainly three: (1) the "Nordic model", also called "universal" which has produced a large amount of assets under public control accessible to all with specific aid for the weaker classes and which plays a calming role on the private property market; (2) the "Central European model", also called "targeted-generalist" which has a share of assets reserved only for the most vulnerable population group and associated with specific aid for the most serious

situations; and finally, (3) the "Southern European model", also referred to as "targeted-residual", which was initially formed to provide housing for workers in the wake of the economic boom of the last century, but is now targeting certain categories of people and has created a reduced wealth integrated with policies to increase ownership⁹.

Analyzing the report Housing Europe Review (2012)¹⁰, published by his Observatory, and the paper of the Centre for the Analysis of Public Policies (2014), "Social Housing in Europe"¹¹, this European heterogeneity turns out to be very definite. In the case of Denmark, Germany, the Netherlands and the United Kingdom, the differences in national circumstances are evident.

In **Denmark**, Social Housing consists of rented housing built by non-profit housing associations and accounts for 20% of the total housing stock in the country. The fee is determined solely by the construction costs and the Municipality, in specific cases of particular economic difficulty, contributes to the payment of fees by special cheques given to tenants. This model is financed mainly by loans that are granted by banks to nonprofit housing cooperatives, by the municipality and, to a lesser extent, by the tenants themselves. In fact, tenants in this system play an active and central role both in management and organization. The Danish system is also characterised by its universalist character: it is aimed not at particular sections of the population but at all those aged 15 and over. Each cooperative then follows its own list according to the priority criteria it considers most important.

In **Germany**, Social Housing accounts for 6% of the total housing stock. Local authorities ensure the availability of housing through cooperation with public or private owners, while the federal state offers subsidies and facilities to cover the difference between the rent required from tenants and the real cost of the rent. The actors operating in this sector are municipalities, cooperatives, private investors and, increasingly, investment funds that, due to the serious financial crisis affecting the municipalities, are privatizing public assets by withdrawing them from social management.

Without a doubt, the country that owns the largest share of Social Housing is the **Netherlands**, where Social Housing makes up 32% of the total housing stock. The Dutch system is quite simple, but very efficient. The Woning Corporaties, or non-profit organizations tasked with providing housing to those with lower incomes, act independently from the State as regards their financial and management structure but are constantly supervised by the State. They deal not only with housing as such, but also with other services more related to residency. Of course there is a security system based on three levels: an independent public body, a private body and the State, to act in case of organizational and economic needs. The Dutch model, like the Danish model, is characterized by its universality, that is, its openness to all the various beneficiaries.

⁹ Pozzo in AA.VV. (2008), *Edilizia sociale in Europa. Premio Ugo Rivolta 2007*, Editrice Abitare Segesta Spa, Milano.

¹⁰ Cecodhas (2012), *Housing Europe Review 2012: the nuts and bolts of European social housing system*, European Social Housing Observatory Pubblications, Brussels.

¹¹ Baldini M., Federici M. (novembre 2008), "Il Social Housing in Europa" in *Paper n.49*, CAPP - Centro Analisi Politiche Pubbliche.

However, it should be remembered that it tends to give priority to certain groups of the most vulnerable population.

In the **United Kingdom** since 1988, when the Housing Act of 1980 came into force in its own right, there has been a radical change. In fact, before almost all the social housing was owned by the Municipalities, while now it has become the property of the tenants or the associations of the house, the Housing Associations regulated by the House Corporation, a government agency. The has have become the most important channel of access to Social Housing Housing managing 54 % of the assets of Social Housing. As for funding, the projects receive money from the funds of the aforementioned housing associations, from government and private loans. In addition, the State has provided discounts on the building area for public housing projects and, thanks to the action of local authorities, provides economic aid to tenants in difficulty.

From what emerges from the analysis of the situation of Social Housing in other European countries, we note a strong heterogeneity. The elements that can be identified as common for the European countries analyzed are the increasingly important presence of the private sector as investor, organizer and manager of Social Housing services; a progressive retreat of the role of the central State, especially in financial terms but also with regard to the autonomy of political competence, which is increasingly given to local authorities such as municipalities, regions, districts, as closer to the different needs of the territory; a situation of lack of housing supply caused by the effects of the global crisis that has impoverished larger segments of the population (Baldini and Federici, 2008).

1.2.1.1. Social Housing and immigrants

Regarding, instead, the policies aimed at immigrants in the specific field of Social Housing in these European countries¹², following the research of the International and European Forum of Immigration Research (Forum Internazionale ed Europeo di Ricerche sull'Immigrazione, FIERI) *"Immigrant integration policies and housing policies: the hidden links"*¹³, the situation is completely different. As in the Italian case, even in these countries immigrants struggle to enter the private real estate market and therefore turn to Social Housing. This sector, although more developed than Italy, has problematic aspects when it is accessed by foreigners. The main problems are of two different types: the first are practical, that is, for immigrants it is difficult to find information on the process for the allocation of housing, have strong linguistic difficulties, online procedures are not within the reach of those who do not have sufficient computer skills, applications are often not met because they are in demand in particular housing located in urban areas where there is a concentration of demand; the second type of problem is ideological-political because there is a reluctance on the part of the local political authorities to take

¹² We will only talk about the situation of Great Britain, Netherlands and Germany since Denmark is excluded from the reference analysis (where France is present instead)..

¹³ Ponzo I., curated by (2010), *Immigrant integration policies and housing policies: the hidden links*, FIERI, Torino.

an interest in the problem thus modifying the system created, which still presents many discriminatory aspects.

At the local level, however, there are many projects aimed at integrating the immigrant population into Social Housing. Mainly the actions undertaken are aimed at curbing the formation of ghetto districts in certain areas of the cities, to increase the active participation of future tenants also in the design phases to create spaces that respond to the needs of future residents and the creation of committees of residents to encourage synergy between Social Housing and the neighborhood of reference.

It is clear that more attention is being paid in these European countries to the link between integration and housing policies for immigrants and urban policies.

In fact, having become aware that the phenomenon of immigration is predominantly an urban phenomenon, urban policies have, as a result, as recipients more and more immigrants. In these European countries, the approach chosen until the 2000s to build integration and housing policies aimed specifically at the immigrant population, implementing ethnic-targeting practices, has therefore been exceeded.

The latter, defined as discriminatory because they exclude a part of the population, have been replaced by an approach that focuses on urban policies, implementing wide-ranging projects aimed at achieving a good level of social cohesion and urban regeneration.

This is the direction that Italy should also be able to take so as not to lag behind the main European countries.

1.2.2. SOCIAL HOUSING IN ITALY

In the public sector, the former IACP (Istituti Autonomi Case Popolari, Autonomous Social Housing Institutes), transformed by the Regions into a Public Building Company ("House Companies") currently manages the most important part of the Public Residential Housing Assets (ERP). In particular:

- 760.000 rented housing for low-income households;
- 25.000 Social Residential Housing (ERS) units with a reduced rent;
- 52.000 paid accomodations;
- 270.000 non-residential units for rent.

In total, about 900,000 homes are still managed¹⁴.

With these numbers, Italy is at the bottom of the European ranking for the percentage of social housing calculated on the total rent below 5% together with Spain, Portugal and Greece, against an average of about 25% of other countries.

On the front of housing needs Federcasa (Federazione Italiana per le Case Popolari, Italian Federation for Public Housing) counted in 2016 about 650 thousand unanswered questions in the ranking of municipalities, To which is added today an unquantified requirement of potential requests for Social Housing of people in need later, but have not

¹⁴ Federcasa 2020 data. Available at www.federcasa.it

yet been present in the ERP lists. A survey of the 2018 Manifesto showed that in Rome, the administration allocates 490 public housing units per year: at the current rate it would take about 35 years to dispose of the 16,000 families on the list that in the meantime will continue to increase exponentially (Bonadonna and Puccini, 2017).

Faced with this need, the supply of public housing is gradually decreasing due to the divestment process initiated by the Public Construction Companies in 1993, which led to the direct loss of more than 22% of the assets. Indeed, the financial flow from sales is not sufficient to ensure the renewal of the residential stock, as three/four houses are sold to rebuild one. Private intervention in this area of demand is not even conceivable because there is a lack of funds at both central and regional level to ensure the fair compensation of the service at current costs¹⁵.

1.3. CHARACTERISTICS OF DEMAND FOR SOCIAL HOUSING

1.3.1. THE DEFINITION OF POPULATION IN THE "GREY BAND"

As previously mentioned, Social Housing seeks to answer the housing demand of a target group of people who cannot access the home at the current prices of the real estate market. The socio-demographic forecasts of the coming years clearly show which population groups will need to be given more attention in housing policies (ANCI Foundation Research, 2010).

The first group consists of young families and workers who have been excluded from the central urban areas of cities, thus having to reside in suburban areas and thus determining a good percentage of commuting. In recent years the needs related to this type of group have changed a lot: in families the number of members has decreased, while young professionals are marked by a strong precariousness.

A second category of people are the elderly, who represent a substantial part of the Italian population and whose active and independent living conditions continue to improve. The forecasts are clear: from 2011 to 2051 the population aged 0-29 years will slowly shrink, the bands between 30 and 44 years and between 45 and 64 years will drop drastically while those over 65 will gradually increase maintaining a self-sufficient lifestyle. Even in this case, the type of housing needs more innovative and adequate forms, compared to current ones, to ensure as much as possible a complete autonomy to the elderly.

The third category is that of offsite university students, who play an increasingly decisive role in urban dynamics. Just think that more than 25% of all university students study far from home and, increasingly, are forced to resort to the private market of rentals in housing that do not always respect the conditions of health and liveability of the environment¹⁶.

¹⁵ ivi.

¹⁶ The statistical data are derived from a study prepared by ANCE in 2011.

1.3.1.1 Young households and the precariousness of young workers

At European level, Italy has a not very happy record, given that on 1 January 2022, 15.65% of the Italian population is aged between 20 and 34. It is estimated that this figure will fall further by 1.5 percentage points in 2030, although only in the Mezzogiorno. In the North, growth of 9.6% is expected due to the southern exodus, while in the Central regions there will be a growth of $3.8\%^{17}$.

Alongside the decrease in the total population, the figure that emerges is the reduction in the composition of households. The reasons are many and must be found in the global crisis of recent years, in the growing average life expectancy and in the increasingly widespread instability of relationships. Every year, 46,000 new families are formed in the big cities, but they derive from the increase in separations, the so-called single-parent families.

In 2013, one-person households were about 28%¹⁸ of the total, more than double the previous decade when they were 11.7% of the adult population. On the one hand the demand for housing increases because there are more and more families, but the affordability is reduced, which indicates the income ability to support housing costs.

Another factor to be considered in the housing issue is the job insecurity for young people and, consequently, the demand for temporary housing. Cities are becoming increasingly attractive for the labour market, especially among young people, who are moving en masse to large urbanised areas, causing an increasingly urgent housing demand. The real estate market today is very rigid and is positioned in sharp contrast to the needs of dynamism and flexibility typical of the youth population.

As always happens in Italy in the face of most emergencies, the most efficient social shock absorber intervenes, the family that, as often happens, replaces the state intervention. It is thanks to the family, in fact, that today young people have not yet fallen into a state of widespread housing poverty. A part of the juvenile population lives in a house owned by the inherited family or, in other cases, some young people derive autonomous living spaces within the same housing unit of the parents¹⁹.

¹⁷ ISTAT 2022 data, available at https://www.istat.it.

¹⁸ C. Rizzini (2013), *Il social housing e i nuovi bisogni abitativi*, in *Primo rapporto sul secondo welfare in Italia*, Centro di Ricerca e Documentazione Luigi Einaudi, Torino.

¹⁹ Censis (October 2016), I giovani e la casa. La generazione dei Millennials di fronte alla questione abitativa, p. 18.

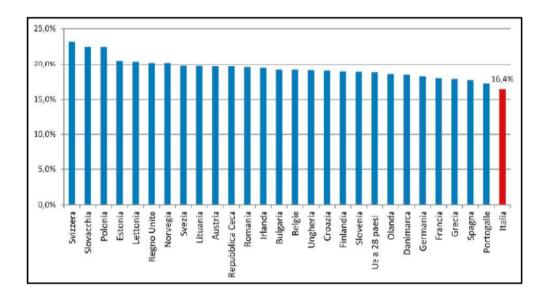


Chart n.1: Share of population between 20 and 34 years to 2015 in European countries (val%) – Censis elaboration on Eurostat data, 2016

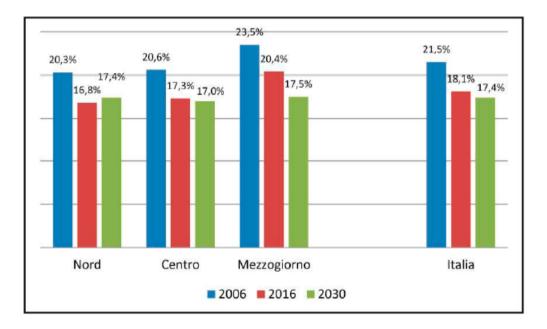


Chart n.2: Share of population between 20 and 34 years to 2015 in European countries (val%) – Censis elaboration on Eurostat data, 2016

1.3.1.2. Offsite university students

The theme of students away from home is always current, every year the numbers increase. Below are the latest data available from ISTAT, for the Academic Year 2014-2015, relating to the number of students outside the State universities with more than 40 thousand enrolled and polytechnics.

At the national level, students attending a university in a province or region other than their own are 47% of the total, or about 650,000 people.

To understand the scale of the problem, however, we must focus on the number of beds available at the national level, that is a total of 54 thousand²⁰ divided between public student halls of residence, private and religious colleges. So we talk about 1 bed every 12 students in the most rosy situations.

The question of housing for students away from home is therefore a major problem which, depending on the urban reality, has more or less serious characteristics. The effects are evident in the private rental market, with disproportionate prices in the central areas or close to the universities and a large number of irregular contracts. In recent years, several cities are trying to cope with this emergency also with several projects related to Social Housing; in addition, as part of the PNRR (Piano Nazionale di Ripresa e Resilienza, National Recovery and Resilience Plan) the decree of the Minister of Universities and Research No. 1046 of 26 August 2022 has been published, which allocates 300 million euros for access to co-financing of interventions aimed at acquiring the availability of beds for university students.

ATENEO	Percentuale di iscritti provenienti da oltre 250 km	Percentuale di iscritti con origine da fuori regione	Terzo quartile delle distanze origine- destinazione (in km)	Dimensione ellisse delle deviazioni standard (in km)	
				Semiasse delle X	Semiasse delle Y
Università degli Studi di TORINO	8,5	13,6	76	239	73
Università degli Studi di MILANO	8,5	16,5	61	220	65
Università degli Studi di PADOVA	6,3	17,1	69	160	7.
Università degli Studi di BOLOGNA	22,0	40,7	268	332	123
Università degli Studi di FIRENZE	11.4	17,0	94	188	70
Università di PISA	23,9	32,2	280	338	122
Università degli Studi di ROMA "La Sapienza"	14,0	25,9	231	186	86
Università degli Studi di NAPOLI "Federico II"	1,3	4,5	32	47	24
Università degli Studi di BARI ALDO MORO	1,4	7,9	66	70	3.
Università degli Studi di PALERMO	0.7	0.7	84	57	43
Università degli Studi di CATANIA	0,7	1,0	66	61	45

ATENEO	Percentuale di iscritti provenienti da oltre 250 km	con origine da fuori	Terzo quartile delle distanze origine- destinazione (in km)	Dimensione ellisse delle deviazioni standard (in km)	
				Semiasse delle X	Semiasse delle Y
Politecnico di TORINO	35,2	40,6	872	552	164
Politecnico di MILANO	15,2	28,9	142	290	90
Politecnico di BARI	0,6	4,6	69	64	24

Chart n.3: Mobility measures for polytechnics (A.Y. 2014-2015) - ISTAT, Students and university basins, 2016

²⁰ DEXIA CREDIOP SPA, CENSIS e FEDERCASA (2008), Social Housing e agenzia pubblica per la casa, p.24.

Regione	Studenti fuori sede	% sul totale degli studenti delle università della regione	Posti letto in residenze universitarie pubbliche e private	Rapporto studenti fuor sede / posti letto
Abruzzo	32.474	68,9	334	97,2
Basilicata	2.103	34,9	160	13,1
Calabria	15.894	37,0	5.761	2,8
Campania	40.502	30,2	728	55.6
Emilia Romagna	80.979	66,6	5.890	13,7
Friuli V.Giulia	17.038	59,5	1.900	9,0
Lazio	74.973	40,8	4.446	16,9
Liguria	11.033	36,9	806	13,7
Lombardia	94.951	48,1	9.739	9,7
Marche	25.002	61,5	3.566	7,0
Molise	4.133	51,4	0	n.d.
Piemonte	27.762	37,6	3.428	8,1
Puglia	18.564	24,5	1.469	12.6
Sardegna	15.735	43,3	1.270	12,4
Sicilia	45.667	38,9	2.484	18,4
Toscana	63.577	67,4	4.253	14,9
Trentino Alto Adige	6.515	42,9	1.654	3,9
Umbria	13.505	49,6	1.491	9,1
Valle d'Aosta	166	17,0	0	n.d.
Veneto	59.103	63,2	5.030	11,8
Totali	649.676	47,3	54.409	11.9

Chart n.4: University students and beds, regional distribution A.A. 2007-2008 - Elaboration of Censis on Miur data, 2008

1.3.1.3. Elderly population

Another population group that does not find an adequate response to its needs in terms of living space is the elderly population. Interest in this target group is growing as statistics, year after year, confirm the age of the population. This does not coincide with a drastic decrease in the physical and cognitive abilities of the population, as even in the post-retirement period people maintain a lifestyle in line with that typical of working age.

The number of people over 65 is expected to increase by about 45% between 2008 and 2030 and, at the threshold of 2060, almost a third of the world's population will be represented by this segment of the population²¹. At the same time, the number of "great elders", the over 80, will increase from 5% to 12% of the total population. It may be interesting to cross-reference the growth of the elderly population with that of the population in urban areas, as is also highlighted in the report "*Global Age-friendly Cities:*

²¹ S. Pericu (settembre 2013), *Gli scenari della longevità. Design for ageing people*, Università di Genova, Teoria e pratica professionale, p. 51.

A Guide^{"22}. Only in Europe will people in cities increase by about 7% between 2005 and 2030. 2007 was an emblematic year in this regard; in fact, the residents of the cities have surpassed for the first time in history the residents of rural areas.

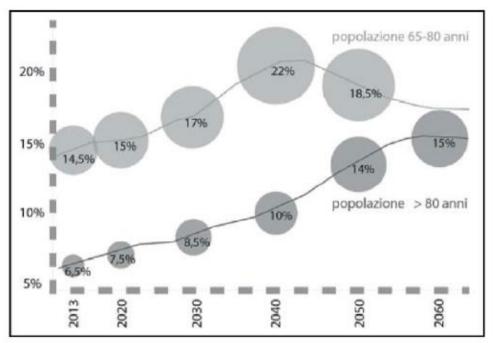


Chart n.5: Projections by age group (2011-2065) - ISTAT data, 2016

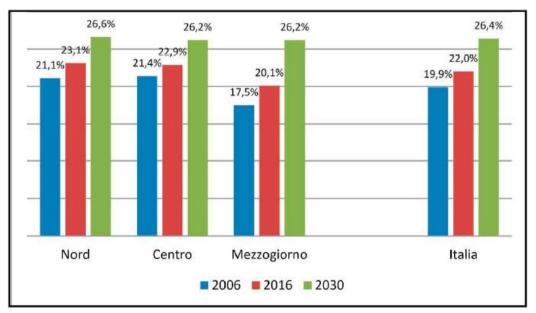


Chart n.6: Share of the 65-years and over age group in the total population in 2006, 2016 and estimated at 2030 (val%) - Censis elaboration on Eurostat data, 2016

²²World Health Organization (2007), *Global Age-friendly Cities: A Giude*, France.

1.3.2. THE FORMS OF HOUSING HARDSHIP

When we talk about housing hardship, we immediately tend to relate this term to situations of lack of quality of accommodation that is manifested in a lack of services and/ or adequate spaces responsible for the condition of discomfort by those who use that space. In reality this is only one aspect of the unease, which can be found in wider paths that sometimes force individuals or families to turn to an inadequate type of housing offer.

Over the last two decades, the rise in rental prices and real estate sales has further aggravated the economic hardship of many households, not only without income but also with low-to-medium income, including commuters, singles, seniors and students away from home, falling into the "gray band" of recipients of most of the interventions provided by the dynamics of Social Housing.

Contemporary housing hardship arises from the intersection of different phenomena such as:

- problems of overcrowding of housing and the consequent inadequacy of housing space: in Italy they affect 28.3% of the population, while in Europe this value drops to 15.6%;
- the presence of housing without basic equipment and therefore not suitable to be inhabited: it concerns 25.6% of the Italian population and 21.6% of the European population;
- the loss of housing following evictions: in Italy, in 2019, 48,543 eviction orders were issued (87% of which for arrears), 100,595 requests for execution and 25,930 evictions were executed;
- the difficulty or impossibility to access the private real estate market due to the lack of adequate economic resources: In Italy, 8.7% of the population lives in households where the total costs of housing represent more than 40% of disposable income, and in this percentage of population the most present age group is from 24 to 35 years (11.2%);
- the possible presence in the nucleus of social fragility and vulnerability 23 .

The joint action of these factors leads to the unease and unsatisfactory number of housing available in relation to housing demand. It is a multidimensional phenomenon that links the socio-economic condition of individuals and families to housing.

There is, in fact, a strong link between human poverty and housing poverty, a link in which situations of housing deprivation are also a manifestation of progressive dynamics of occupational or relational insecurity and processes of transformation of family and social structures.

This dynamic reading of the phenomenon, which links the economic dimension to that more strictly human, extends the area of need or discomfort by relating it to processes of impoverishment and social vulnerability and leads to the appearance of new figures

²³ Nomisma (june 2021), *Report Next Housing*.

bearers of such housing need. In fact, it is important to understand what the home does in people's life paths, its role in delineating the spiral of exclusion or inclusion and the way it interacts with other possible forms of discomfort. That is, attention to processes and not just situations. An immediate consequence of this reading is the impossibility of reducing the problem of home only to a problem of access to the house as this is only one aspect of a wider problem that obliges us to diversify the nature of the discomfort and to deepen its various and possible manifestations. There is widespread awareness that the economic dimension is no longer the only component that allows us to define a condition of life that includes all those situations, different in intensity and type, that move away from a "normal housing"²⁴.

Nomisma²⁵ carried out a sample survey representative of the Italian population, which highlighted three different types of weaknesses: ranging from "economic weakness", that is, the difficulty in supporting housing-related expenses to "housing weakness", characterized by deficiencies in the characteristics of the property and a number of aspects related to the context in which you live. In addition to these two weaknesses there is a third one, the "social" one, characterized by issues related to health, such as the presence of people who are not self-sufficient, work (unemployment or precariousness) and the relational system (absence of a family or friend support network)²⁶.

Overall, housing hardship affects just under 1.470 million families, or 5.7% of Italian families. Of these 1.150 million live in rent and the remaining 320,000 in property. The decline in the purchasing power of incomes resulting from the economic crisis has led to an increase in the burden of housing expenditure in family budgets, aggravating the problem of affordability, that is, the sustainability of housing expenditure. On the one hand, if the decline in income leads to increasing housing deprivation, On the other hand, the excessive weight of housing costs translates into a reduction in disposable family income and a consequent squeeze on consumption or savings. The territories that express greater discomfort for the high incidence of the rent paid on the income of the tenant are, with reference to the territorial divisions, the North-West and, to follow, the South and the Islands while, by size, the most populous municipalities together with the least populous (over 200,000 inhabitants and less than 20,000 inhabitants respectively).

The housing hardship of households leased out of the ERP seems to present a certain rigidity with respect to the variation of the rent, if you simulate an average rent, alternative to the one currently supported (which varies in a range between 380-450 euros per month), equal to 110 euros per month (the average fee in Italy in the ERP is 110 euros/month - source: 2° *Osservatorio ERP di Federcasa*, 2019). In fact, the scenario that assumes as average monthly expenditure for rent the amount of 200 euros, generates a significant reduction in the size of housing problems that passes from the current million households to the hypothetical 363,000 households. If, however, the fee is lowered to 110 euros, 288,000 families remain in distress, with a reduction in the size of the phenomenon

²⁴ Graziani A. (2005), *Disagio abitativo e nuove povertà*, Alinea, Firenze.

²⁵ Nomisma SpA is a consulting company operating in the fields of applied economics, founded in 1981 in Bologna by a group of economists, including Romano Prodi.

²⁶ Ivi.

much more contained. This simulation shows how the phenomenon of housing discomfort can find a response within the ERP system only if action is taken to expand the housing stock and make sustainable management of the same in the face of an impoverishment of the population in condition of housing difficulties. Overall, the response to housing distress can only come from a renewed and renewed public policy of the house. To understand the strategic value of "housing welfare" for social cohesion and inclusion policies, it is sufficient to reflect on the dimensions assumed by poverty in our country. In 2019 in Italy there are 1.674 million citizens living in conditions of absolute poverty. In 15 years their incidence has doubled from 3.6% to 6.4% on all Italian families. Before the pandemic due to the spread of Covid-19 led to a resurgence of widespread poverty even in areas of the country in the past less affected by the phenomenon, in Italy there was a decrease in absolute poverty (148 thousand families less than in 2018). But, behind this decline, there are some elements of break from the past:

- the increase in absolute poverty in the North-East of the Country due in part to the worsening economic situation of the families of foreign people and regular residents in our Country, mainly concentrated in the Center-North (83%), which have encountered greater difficulties in re-entering the labour market since the crisis;
- the increase in the intensity of absolute poverty, meaning "how poor are the poor" (percentage of average spending below the poverty line), in particular in the North-West of the country.

The dimensions of poverty are many (inadequate access to basic services such as health, housing and education, exclusion from the labour market and poor quality work) and for this it is necessary to intervene with an "integrated welfare", within which the fight against housing poverty seems to be the starting point for supporting and encouraging access to education, training and "good" employment. The traditional measures, among which the ERP system, intervene more and more on the serious poverty band putting at risk the sustainability of the management activity in the hands of the local House Companies²⁷.

Many districts with a prevalence of public housing were built in the 1980s to provide an immediate response to substantial housing needs; currently these settlements present with serious problems of both social marginalization, urban and building degradation, showing several problems related to their peripheral location, the shortage and poor quality of open spaces, collective equipment, the insufficient number of services available to the inhabitants.

Moreover, the housing need has a strong social impact, with repercussions on the coexistence of communities and their balance.

Another important fact to consider in order to reconstruct the foundations of housing distress is the increase in the fragmentation of the traditional family unit, increasingly

²⁷ Nomisma, Federcasa (may 2020), Dimensione del disagio abitativo pre e post emergenza Covid-19. Numeri e riflessioni per una politica di settore.

characterized by individual processes as single-parent families or singles, activating different dynamics both in terms of housing and social.

This complex unease requires a plurality of actions, in order to intervene with an adequate multi-level strategy, aimed at:

- define the right regulatory and fiscal tools to facilitate the rental of real estate;
- strengthen financial support for economically disadvantaged families;
- facilitate access to the rental market for families of the so-called gray band, able to pay a moderate rent through the Social Housing $tool^{28}$.

AND 1.4.2. **REQUIREMENTS ELIGIBILITY CRITERIA** FOR **BENEFICIARIES**

Drawing an organic picture of housing policy is not easy and, all the more so, it is not immediate to be able to identify an Italian declination, shared and suitable in every corner of the country, of a relatively recent form of intervention such as social housing. In addition to the concept of Social Housing and national legislation, in fact, there is a wide range of regional experiences that do not always allow the identification of common traits. The most common way to define eligibility for the allocation of a social housing is the use of:

- income ceilings: supply, therefore, is as fragmented as demand, especially when referring to experiences that combine the environmental sustainability component, with that of destination of the lodgings to subjects with incomes advanced regarding those demanded in order to use of the programs of Residential Building Public and inferior to those necessary in order to feed the effective question on the free residential market. From the practical point of view, in fact, the lower and upper limits regarding the reference incomes are different between the Regions, as are the canons of the various types of buildings that make up the social mix required for housing solutions of social housing. Considering, as an example, the maximum thresholds of annual gross income to access the most advantageous band of subsidized-conventionally owned buildings applied in five regions, we can see that there are also deviations of 12.7 points compared to the average²⁹;
- criteria of necessity: the subjects interested by the services of Social Housing belong to a vast intermediate area that although not in conditions of serious precariousness, is not able to access a home at market conditions. For this category, in fact, housing is a constraint (in the independence of young people, in the transfer for reasons of study or work, in the construction of a new household) or a significant risk factor (in the case of eviction, separation, termination of cohabitation)³⁰;

²⁸ Saccomanno A. (2012), Thesis: La questione abitativa: dalla casa popolare all'alloggio sociale, Università degli studi di Palermo.

²⁹ Cassa Depositi e Prestiti S.p.A., AA.VV. (2014), Social Housing - Il Mercato Immobiliare in Italia: Focus sull'Edilizia Sociale. Report Monografico, p. 54

³⁰ Ivi, p.43.

- criteria relating to beneficiaries and target groups (elderly or disabled, families with many children, mentally disabled, employees of certain companies, etc.): to date, the housing problem does not only affect the weakest sections of the population, but it concerns a larger basin of people. These are often single-income families, precarious workers, single-parent families, young people, the elderly and foreigners: typologies characterized by extremely different needs, resources and expectations, but united by the difficulty or impossibility of maintaining the house in which they live, whether it is an apartment for rent or property³¹.

1.4. THE FINANCIAL MODEL

Since 2008, a strong emphasis has been placed on public, private and social private cooperation³². To date, the Integrated Fund System³³ is being tested nationally, a form of Public Private Partnership (profit, non-profit and limited profit) that has managed to trigger a synergistic privatisation process (through off-balance-sheet investments by the public sector), financialisation (through ethical real estate funds) and socialisation (through social management) in the domestic sector (CDP Immobiliare Sgr, 2022).

In its three dimensions (Public, Private and Private Social) it can be said that this process is functional to overcome market imperfections due to the lack of sufficient public resources and the difficulty for individuals to invest profitably (Rizzini, 2013).

Today, almost a decade later, the aforementioned model for the supply not only of housing, but also of services aimed at strengthening social cohesion, in its declination of local funds, is exploring all the possibilities that lead to the maximization of the functions pursued by public, private and social sector operators (cooperatives of inhabitants and social), exploiting their complementarity³⁴.

The combination of the process of privatization, financialization and socialization today represents, compared to the traditional one, an alternative way capable of producing added value according to different dimensions: the economic one, in terms of material wealth; economic and financial, in terms of greater and better housing supply; and social, in terms of production of relational goods aimed at strengthening the sense of belonging to the community and creating social value (interpresonal relationships, personal care

³¹ Ivi, p.46.

³² DPCM 16 July 2009, approval of the national housing plan, the House Plan. expressly provides, as a first line of action, for the establishment of an integrated system of national and local real estate funds for the acquisition and construction of buildings for social housing or the promotion of innovative real estate financial instruments, with the participation of public and private entities for the enhancement and growth of the rented housing offer (Article 1).

³³ The Housing Investment Fund (FIA) was established by CDPI Sgr ("Cassa Depositi e Prestiti Investimenti Sgr") on 16 October 2009. The management regulation was approved by the Bank of Italy with Resolution no. 167 of 11 March 2010.

³⁴ It is thanks to this complementarity that, allowing to reduce economic asymmetries (Costs > Revenues, Net Present Value, etc.), financial (time lag between sources and negative Cash Flow) and social (risk of late payments, risk of social exclusion)through compensatory measures implemented by the parties involved, all social housing interventions initiated by investors willing to accept combinations of low returns compared to the market and yet less risky in a market compromised by the real estate crisis.

services, networks, etc.) and cultural through the dissemination of collaborative community values, equity, tolerance, conflict management, solidarity and mutuality. The balance of the three components is of fundamental importance for the effective production of social value, since Social Housing is presented as a mode of intervention in which the real estate aspects must be studied according to the social contents, in support of public welfare and with the twofold objective of promoting housing policies and extending the right to live in safe contexts and inclusive communities to wider and wider segments of the population³⁵.

In the delicate processes of financialisation of services of general interest (such as social housing, education and health - areas which are fully covered by the definition of "social infrastructure") great attention must be paid to the question of the responsibility³⁶ of entities that are in various ways appointed for the production and provision of services: in the long term and in the absence of systems for social impact assessment, control and economic responsibility over operating results may take precedence over formal control guidelines, with the risk not only of turning a "charter" a service provided through public funds, but also of ignoring the expectations of the established communities.

That is why the most guaranteed partnership formulas are those that provide for the management of the local authority and the joint management of real estate and social aspects by independent individuals, private, but with a mission of public interest or philanthropic (Rizzini, 2013).

These entities, which generally assume a non-profit or limited profit legal form (typically Inhabitants' or social cooperatives), are based for their operation on solid participatory foundations, in the sense that the inhabitants are adequately represented within them and participate, where possible, also in the creation and management of services. The social entrepreneurship and the capacity building of this type of operator, called "social manager", represent one of the most qualifying contents of the Social Housing model and projects in Italy (Picciotti, 2013).

Investment costs for financing the development of Social Housing can be reduced by using different financial sources:

- subsidies;
- public loans by special public credit institutions;
- interest rate rebates (in the case of private loans);
- warranties guaranteed by the State (in the case of private loans);
- land supplied at a reduced price (for example through agreements with local authorities such as municipalities);
- tax privileges (such as income and investment deductions, depreciation, reduced sales and property taxes, capital gains tax exemptions and reduced VAT rate).

³⁵ Sen, Amartya Kumar, Santiniketan 1933. Nobel Prize for the Economy in 1998.

³⁶ Administrators using public financial resources shall be responsible for reporting on their use both in relation to the regularity of accounts and the effectiveness of management.

The responsibility for providing public funding for the development of social housing can be exercised at different levels, often combined: the central state, the regions and the municipalities.

Interestingly, it is common to establish a minimum percentage of Social Housing in new urban developments as a condition for obtaining building permits for private developers. The other main source of funding for new social housing projects is the private market. In many European countries, the traditional form of financial debt was either through the public sector, which allows financing at risk-free interest rates, or by means of interest subsidies for independent social owners, allowing investments to be undertaken at lower costs (Picciotti, 2013).

Over the past twenty years, with the deregulation of financial markets and the increase in lending opportunities, There have also been moves to privatise the existing stock and thus use equity as collateral for further lending either for housing or to reduce public debt elsewhere (Picciotti, 2013).

So far only the subsidies on the supply side have been mentioned, those aimed directly at reducing the costs of new developments. However, there are also demand-side subsidy mainly in the form of housing allowances to low-income tenants to help them with paying rent. The concentration of public expenditure on subsidies on the demand side makes it possible to better orient households in difficulty and adapt them quickly to respond to changes in socio-economic conditions (Rizzini, 2013).

They do not have a direct impact on the housing supply, which in some cases is strongly needed, and if they are also available to tenants in the private rental market they may end up increasing the rent level (Caudo and Sebastianelli, 2008).

It is important to emphasise that housing allowances are complementary to the financing of the provision of social housing. They represent a key source of indirect funding for the social housing sector as they help to ensure that rents are actually paid.

1.5. SOCIAL HOUSING UNTIL TODAY

The first experiences of Social Housing were initiated in the early twentieth century by the private sector, philanthropic entrepreneurs interested in the living conditions of workers in their factories, as a response to industrialization and urbanization. Subsequently, to meet the pressing housing needs of the post-World War II period, many nation states across Europe took these private initiatives with the aim of generalizing them on a wider scale.

In the second half of the nineteenth century, the unification of Italy stimulated industrial development and rapid urbanization, leading to the migration of farmers from rural areas to large cities and thus increasing the need for affordable rental housing. Until the beginning of the twentieth century, the country had no national housing policy, therefore,

the answer to housing problems had to come from philanthropic societies³⁷. The first policy of social housing, which aimed to address the growing shortage of housing for the poorest sections of the population, was based on the Luzzatti Act of 1903 and the Single Act on Social and Economic Housing of 1908. The programme did not focus directly on satisfying social needs, but rather on providing financial aid, encouraging public and private bodies (such as cooperatives, charities and mutual aid) financed by banks, insurance companies, etc. to act.

The role of the State in the provision of social housing was first recognized during the socalled "Giolitti Period" (1901-1914), when the institute for social housing (ICAP: Istituti Autonomi Case Popolari, Autonomous Institutes for Social Housing) was founded. Later, during the Fascist Twenties (1923-1943), however, emphasis was placed on satisfying the housing needs of the middle class and civil servants at the expense of the poorer social segments. This, together with the frequent bombings, the inadequacy of the way in which the fascist regime faced the housing shortage and the decrease in construction activity due to economic policies that focused more on the growth of other sectors of industry. It led Italy to face a huge housing problem in the post-war economic recovery period (1943-1960). After World War II, the INA-Casa seven-year plan (Fanfani Act, 1949), the largest social housing program ever undertaken in the country, was launched. In this period, 350,000 housing units were built using an innovative financing system: funds were raised by both employers and employees. This system, which was initially supposed to remain in force for only seven years, then remained in use for fifty years³⁸. The following years saw the first strike in Italy: in 1968, the population protested against the State for the way it handled the housing problem, stressing that it should intervene in the provision of housing and in the management of demand effectively, checking prices and rents. As a result, the ten-year Gescal (Worker Housing Management) plan was put in place to ensure that workers and their families were guaranteed housing with green spaces, spiritual, recreational and social facilities.

However, after a period of prosperity and strong economic growth, Italy faced a new debt crisis in the early 1980s, during which the government had to cut public spending and reduce inflation, reducing public investment³⁹. The pace of change in housing policies, which had already begun in the 1970s with the transfer of power from the state to the regions, accelerated between 1980 and 1990, period in which responsibility for the provision of social housing was devolved to regional or local administrations. Public funds for housing were also reduced and policies were adopted that allowed the privatization of public housing.

³⁷ Zamagni, S. (2005), *Dalla filantropia d'impresa all'imprenditorialità sociale*, Aiccon - cooperazione non profit, available at www.aiccon.it.

³⁸ Ciagà G.L. (2005), "L'attuazione del Piano INA-Casa (1949-1963)", in *La casa popolare 1903-2003*, Raffaele Pugliese (ed), Unicopli, Milano.

³⁹ Priemus, H.; Kleinman, M.; Maclennan, D.; Turner, B. (1993), *European monetary, economic and political Union: consequences for national housing policies, Housing and urban policy studies, No.6*, Delft University Press.

Over the past decade, Community Foundations⁴⁰ and Inhabitants' Cooperatives⁴¹ have played a key role in the sustainable development of new Social Housing communities, implementing innovative and sometimes experimental collaborations for the promotion and development of social housing interventions. In Italy, in fact, the model of social housing (the so-called Public Residential Housing - ERP) has been suffering for some time from limited public resources and the inability to support investments in the maintenance of the building stock and the construction of new areas (Saccomanno, 2012).

Since the first decade of the new century, the need to rethink Italian housing policies has emerged, noting a substantially heterogeneous housing demand to be met with targeted and non-standard interventions. A question that highlights the most diverse forms and paths of social vulnerability and, moreover, the need for affordable housing in economic terms also pays particular attention to the characteristics of sociality, civic sense and territorial belonging.

This last meaning underlines those practices of citizenship empowerment aimed at discouraging the formation of environments of marginalization and stigmatization and promoting upward social mobility paths. Housing Practices and policies are more than ever fully among the tools of urban planning in the broad sense and the answer to the demand for "affordable housing" is represented by the evolution of a type of centralized welfare model, generated by a regulatory framework that, since 2008, has triggered a profound change in the social housing sector, bringing together the resources of private economic entities to provide a service of general interest⁴².

⁴⁰ The Community Foundations are non-profit organizations with legal personality, private and autonomous that are born and developed also on the initiative of institutional, economic and third sector of a given territory. Their aim is to improve the quality of life of the community in which they arise. They act as a crossroads between the social partners present in a specific geographical area, working with them on emerging needs and on the implementation of culture and gift giving and solidarity. Unlike other non-profit organizations, these organizations do not have as their objective the accumulation of resources for the pursuit of a specific cause, identified by the organization itself according to the needs of the territory, but rather aim to support the philanthropic activity of the community's active actors, be they citizens, businesses, public bodies or third sector organizations. Community foundations aim to promote the culture of donation and aim to stimulate grants and contributions for projects of social utility, eliminating all cultural activities, tax, legal and administrative obstacles which normally prevent the members of a community from contributing to the development of the common good. In Italy the Social Housing Foundation is part of this category and is a consultant of the "Fondo Investimenti per l'Abitare" (FIA, Investment Fund for Housing) promoted by Cassa Depositi e Prestiti Investimenti Sgr.

⁴¹ Inhabitants' Cooperatives are mutualistic organizations of housing needs with democratic governance. The members, who need housing, enter into, or found, a new cooperative entrusting to it their savings that make possible the realization of the project. Once the construction is completed, the housing is allocated at prices much lower than the market average because they correspond to the pure allocation of costs. Cooperatives are enterprises of people and not of capital: they do not aim to make profit but to respond to housing needs. Two types of Inhabitants' Cooperatives can be distinguished: those with "undivided properties", in which cooperatives remain owners of the properties while the houses are granted to their shareholders at very low and advantageous rents, and those with "divided ownership"In which the partners become owners of the apartments they follow all the urban planning process, often lasting many years. (Ferri G., Rossana Z., Pavesi S. A., 2018, Cambia l'abitare cooperando, Mondadori-Pearson, Milano).

⁴² Services of general interest are services which the public authorities of the EU Member States classify as being of general interest and are therefore subject to specific public service obligations. They can be provided by the state or private sector. Examples of services of general interest include: public transport,

The so-called "Social Housing"⁴³ has entered the real estate market and has taken on the connotation of a financial and real estate product that offers affordable housing and services on the market for the so-called "grey band" (Delle Monache, 2018).

It is possible to observe how the housing problem in Italy has been treated differently according to the different economic and political contexts within which it occurred. Various public and private institutions have been involved in efforts to reduce the housing shortage faced by vulnerable social groups. At first, the public sector, which was almost absent in the field of social housing, was replaced with philanthropic organizations. Subsequently, the role of the public sector became increasingly important and reached its peak during the post-war reconstruction period. The public sector then gradually reduced its housing intervention efforts and thus inspired the private sector and the third sector to act (Delle Monache, 2018).

1.5.1. THE ACTORS OF SOCIAL HOUSING

It is known as the Italian social housing system, but not only, is characterized by the autonomous work of different actors: public (for the most part), private, non-profit and low-profit. Among these, a decisive role is played by the promoters of the initiatives. "Essentially these are interventions in which a private subject, usually not for profit, in partnership with a public entity, is the promoter of the construction of residences intended mainly for the calmed and, in order to return quickly from the investment made, partly also to the sale and, in smaller shares, to the social rent"⁴⁴.

The tasks of the Regions may be to indicate housing needs and the objectives of local public policies, allocate contributions and coordinate the process of formation of initiatives and the implementation phase. It is up to the Regions to define the requirements for access to and permanence in social housing and rent, it must take into account the economic capacity, the composition of the household and the characteristics of housing. The tasks of the Municipalities are to make available cost-controlled building areas or grant economic benefits to the actuators, participate as investors in local funds, participate in the process of planning and implementation of interventions including through the adaptation of urban planning tools, define the criteria for identifying the recipients of housing (CDP Investment SGR, 2010).

postal services and health care (European Commission definition of Services of general interest, available on: https://ec.europa.eu/info/topics/single-market/services-general-interest_en).

⁴³ The possibility of activating social housing programs was introduced by the Italian State in 2007 with the Budget Law 2008 (Law 224 of 24.12.07), followed by the DM of 22 April 2008 which provides for the general definition of "social housing" the objectives and methods of implementation. "Social housing is defined as the building unit used for the permanent residential lease which serves a function of general interest, in the maintenance of social cohesion, to reduce the housing hardship of disadvantaged individuals and families, who are unable to access rental accommodation in the free market. Social housing is an essential element of the social housing system consisting of a set of housing services designed to meet basic needs" (see Article 1.2).

⁴⁴ Delera A. (2012), "Housing Sociale per una nuova morfologia della città", in *Techne - Journal of Technology for Architecture and Environment* 4, 74, p.75.

The promoters of the initiatives can be Foundations of banking origin⁴⁵, private or local institutional investors: these parties participate in the promotion, structuring and assembly of initiatives, and co-invest in funds.

Finally, other private operators, Cooperatives and Casa Companies, can participate in the selection procedures for the actuators, participate in the investment in funds, propose own real estate interventions and also directly manage the real estate services and the services to the dwelling. The management of interventions is another aspect of primary importance and takes on an innovative character, as it includes various aspects of the intervention, including "social" ones (CDP Investimenti SGR, 2010).

1.5.1.1. The figure of the social manager

Given the need to combine several aspects in the management of Social Housing projects, a new figure has been introduced, that of the social manager. The term "social management" means "the set of activities related to the administration of real estate and the management of relations between the people living there" (Pavesi *et al*, 2012). The social manager is therefore an operator that deals with all aspects of management, from the more traditional ones, which correspond to consolidated operating models and standardized procedures, to the less conventional social ones: precisely because of the introduction of the latter, This new figure is called "social manager" instead of "property manager" (Pavesi *et al*, 2012).

The social manager is generally an expert in the field of social housing: "can therefore be a cooperative of inhabitants, an association, a foundation or, in some cases, a public entity showing interest in experimenting with a new organizational model of housing management" (Pavesi *et al*, 2012, p. 113). The operator can also be made up of several organisations with synergistic and complementary profiles (CDPI, 2011).

"The main objectives of the Social Manager are the provision of high quality services, including the monitoring and evaluation of these services, and the integration of the economic and social dimensions, aiming at the activation of relational and supportive networks based on the sharing of values, participation and sense of belonging" (Ferri, 2011).

The manager must be able to promote activities to accompany and empower tenants in the management of buildings and the neighborhood and be able to perform interlocution functions, Social and cultural mediation aimed at preventing conflicts and tensions within communities (vademecum, 2011).

The social manager is usually accompanied by representative bodies of the tenants and the same inhabitants participate, where possible, in the management of services (Del Gatto, Ferri, Pavesi, 2012).

⁴⁵ Private and autonomous not-for-profit entities, born in the 90s of the twentieth century from the separation of credit activity from the philanthropic activity of some credit institutions..

In conclusion, the activities of the social manager can be summarized as follows:

- asset management: management of leases and sales, administrative management (contractual, accounting, cadastral, tax), management of the phase of disposal of property/ housing;
- technical-maintenance management and real estate services: ordinary and extraordinary maintenance, management of services (prompt intervention, cleaning, surveillance, etc.);
- social management: user management (selection, assignment, accompaniment, monitoring, etc.), management of living and social services (for example, kindergartens or even neighbourhood animation), management of participatory processes and representation of inhabitants in the management and management of real estate, management of communication to and from the community of inhabitants (CDPI, 2011)⁴⁶.

⁴⁶ The subject of the Social Manager is dealt with in more detail in Chapter 2.

1.6. SOCIAL HOUSING BETWEEN SOCIAL DESIGN AND INTEGRATED SUSTAINABILITY

1.6.1. THE CONCEPT OF SUSTAINABLE DEVELOPMENT

"In the environmental and economic sciences, a condition of development able to ensure the satisfaction of the needs of the present generation without compromising the possibilities of future generations to realize their own. [...]"⁴⁷

The first definition of sustainable development is contained in the Brundtland report of 1987⁴⁸ and then taken up by the World Commission on Environment and Development (WCED). This definition covers all forms of development, from the economic to the urban to the community. The objective is to maintain economic development compatible with ecosystems, thus operating in an environmentally balanced manner.

The problem is therefore how to make economic needs compatible with the reasons of the environment throughout the planet. The reflections around this node have arisen from the awareness, emerged since the early 70s, of a clear contradiction between the continuous growth of the gross product of different countries and the limited resources available, and the inability of the environment to absorb waste and polluting emissions.

Sustainable development represents a global and integrated vision of the concept of development, a strategy that is articulated on different levels: it can be defined as a form of development not only economic but also social, where economic growth takes place within the limits of the ecological possibilities of environmental ecosystems and their ability to meet the needs of future generations.

The Brundtland report also shows that the environmental problem is closely linked to a social and political problem and an economic problem. Thus, the three declinations of sustainability are introduced:

ENVIRONMENTAL SUSTAINABILITY: means the ability to preserve over time the three functions of the environment: a supplier of resources, a receiver of waste and a direct source of utility, while ensuring the protection and renewal of natural resources and heritage.

SOCIAL SUSTAINABILITY: means the ability to guarantee the conditions of human well-being (safety, health, education) equally distributed by class and gender and also the ability of the subjects to intervene together, The European Commission is currently

⁴⁷ Enciclopedia Treccani, www.treccani.it/enciclopedia/sostenibilita

⁴⁸ In 1987, Gro Harlem Brundtland, president of the World Commission on Environment and Development (WCED), established in 1983, presented the report Our common future (The future of us all)The European Commission is currently preparing a guide for sustainable development. The Brundtland report noted that the critical points and global problems of the environment are essentially due to the great poverty of the south and the unsustainable production and consumption patterns of the north. The report therefore highlighted the need to implement a strategy that would integrate the needs of development and the environment. This strategy has been defined in English with the term sustainable development, currently widely used, and later translated with "sustainable development".

working on a proposal for a Council Directive on the approximation of the laws of the Member States relating to the approximation of the laws of the Member States relating to the approximation of the laws of the Member States.

ECONOMIC SUSTAINABILITY: means the ability of an economic system to generate sustainable growth of economic indicators: in particular, the ability to generate income and work for the livelihood of populations, and also the ability to produce and maintain within the territory the maximum added value by effectively combining resources, in order to enhance the specificity of products and services⁴⁹.



Picture n.1: Diagram of the three types of sustainability - SOGESID S.p.A., 2018

These dimensions are closely interrelated and, therefore, should not be considered as independent elements, but should be analysed in a systemic vision, as elements that together contribute to the achievement of a common goal. This means that any planning intervention must take into account the mutual interrelationships. If planning choices favour only one or two of its dimensions, sustainable development does not occur.

With the affirmation of the principle of sustainable development, environmental policies go beyond a strictly defensive and opposing vision of development without limitations, to launch a process of proactive policies aimed at activating instruments for the integration of the environment, economic development and social context. This process

⁴⁹ http://www.sogesid.it/sviluppo_sostenibile.html, SOGESID S.p.A.

is regulated according to the rule of the three "Es": EQUITY, ECONOMY AND ECOLOGY. ⁵⁰

EQUITY: Sustainable development requires social structures and organizations that provide communities with the tools to manage and control resources rationally. Social sustainability is based on a high degree of equity and social justice, cultural identity and social cohesion, participation in the choices by all social categories according to their own abilities and to the assumption of individual and collective responsibilities;

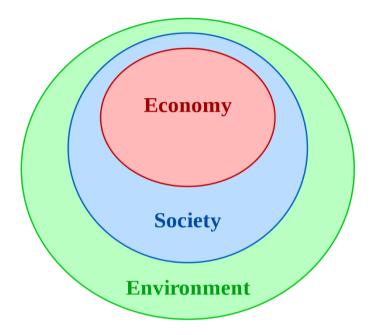
ECONOMY: A definition of income would argue that it indicates how much a person can consume in a given period of time without reducing his starting capital. This, if applied to the whole of the planet's resources understood as natural capital, could represent an important definition of sustainability. However, the approach of highly industrialized societies is very different, because of the little consideration, until a few decades ago, which enjoyed the hypothesis that natural resources could run out relatively quickly, nor was it thought that the scale of the changes brought about by human actions could have the magnitude today of climate change. Moreover, the economy has always valued capital in monetary value, but the ecological functions (those carried out by natural capital, which allow human communities to live on Earth) have a market price that is only now being attempted to quantify;

ECOLOGY: sustainable development means maintaining the load capacity of ecological systems, regulating the collection of natural resources and the emission of waste by the economic system, In order to maintain the productivity and functionality of ecological systems. In essence, this results in the use of natural resources so that their natural regeneration is guaranteed, maintaining the overall balance of ecosystems and the use of non-renewable resources to a minimum and necessary level for the development of renewable alternative sources⁵¹.

It is also clear at this point that it is possible and appropriate to represent the sustainability of development through three concentric circles, highlighting how the economy exists within a society, which in turn must be included in the environment.

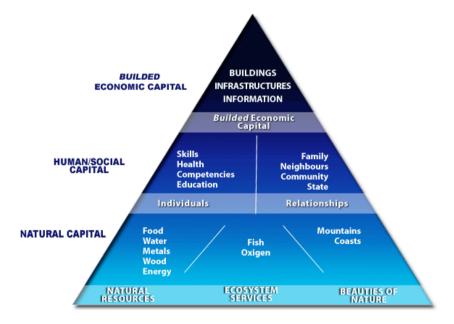
⁵⁰ The Report, published by the OECD on 13 September 2011, declines the modalities of the sustainable development model and monitors the progress made in the field of productive resources, The G8 Environment Ministers at their conference in Kobe in May 2008. On that same occasion the adoption of the c.d. 3R Action Plan was approved.

⁵¹ http://www.ambienteinliguria.it/eco3/ep/liguriasostenibile/documenti/rapporto_bruntland.pdf



Picture n.2: Concentric diagram of the three sustainability systems - Adaptation from Lewett, 1998

It is therefore possible to build a pyramid of sustainability (Sustainable Pyramid) based precisely on the environmental dimension that, through the provision of natural resources, ecosystem services and welfare to society, that plays a fundamental role in supporting both the economic and social dimensions.



Picture n.3: Pyramid scheme of sustainability - Marco Guido Salvi (mgsalvi.it), 2013

Precisely because of its threefold environmental, social and economic dimension, sustainable development requires substantial changes in the individual behaviour and choices of decision-makers operating at different levels of political and administrative government.

1.6.2. THE CHALLENGES OF THE EUROPEAN UNION

The problem of climate change, and its consequences, has long been considered one of the phenomena with a long-term impact, requires coherent action by the European Union, both internally and internationally. It provides the Member States with a long-term framework on the question of the sustainability and effects of phenomena which cannot be managed solely at national level. With regard to this need, an initiative called "*A resource-efficient Europe*" ⁵² has been presented as part of the Europe 2020 strategy, proposing a series of long-term strategic plans in the transport sectors, energy and climate change.

The above strategy includes five main points that define the objectives that the European Union aimed to achieve by 2020. Among these, the commitments within the climate and energy theme stand out: Member States have committed to reduce greenhouse gas emissions by 20% (compared to 1990 levels), to bring to 20% the share of energy derived from renewable sources in the European energy mix and achieve an increase of 20 energy efficiency.

Moreover, in February 2011, the European Council reconfirmed the European Union's goal of reducing greenhouse gas emissions by 80-95% compared to 1990, by 2050 in order to contain global warming produced by climate change by 2°C. Some Member States have already taken steps in this direction, or are about to do so, by setting reduction targets for 2050, without the use of compensation in the carbon market.

The analysis of various scenarios reveals that, in economic terms, the best option to achieve the targets set by 2050 would be to achieve internal emission reductions of 40% and 60% compared to 1990 in 2030 and 2040 respectively. It follows that all sectors must be able to contribute to the transformation into a low-carbon economy, with a share of reduction depending on the economic and technological potential of the i-th sector.

⁵² COM (2011) 21: http//ec.europa.eu/resource-efficient-europe

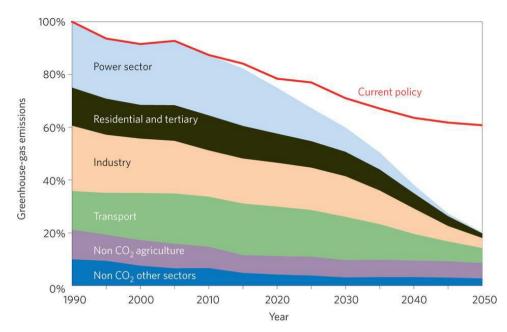


Chart n.7: Greenhouse gas emissions in the EU – towards an internal reduction of 80% (100%=1990) – www.consilium.europa.eu/it/policies/climate-change/, 2019

SECTORS	2005	2030	2050
Electricity production (CO ₂)	-7 %	-54/-8 %	-93/-9 %
Industries (CO ₂)	-20%	-34/-0 %	-83/-7 %
International airplane transports (CO ₂)	+30 %	+20/-9%	-54/-7 %
Residential and services (CO ₂)	-12 %	-37/-3 %	-88/-1%
Agricolture (non-CO ₂ emissions)	-20%	-36/-7 %	-42/-9 %
Other non-CO ₂ emissions	-30 %	-72/-3 %	-70/-8 %
TOTAL	-7 %	-40/-4 %	-79/-2 %

Table n.1: Forecast of sectoral reductions in greenhouse gas emissions compared with 1990 – www.consilium.europa.eu/it/policies/climate-change/, 2019

It is clear that the energy sector has the greatest potential for reduction by 2050, eliminating almost all carbon dioxide emissions. The protagonist of this potential is electricity, which can partially replace the use of fossil fuels in the heating and transport sectors, coming from renewable sources such as wind, solar, water and biomass.

Biofuels, together with innovations in the field of hybrid and electric vehicles, could reduce emissions in the transport sector by more than 60%. Emissions from homes and offices can be completely extinguished through the use of passive building technology in new buildings and the renovation of old buildings with measures to improve energy

efficiency and reduce consumption during their nominal life. In the industrial sector, the technologies used will become increasingly energy efficient, reducing emissions by more than 80% by 2050, while the decrease in the use of fertilizers and fertilizers would lead to a slight inflection of emissions in agriculture.

1.6.3. WEAK SUSTAINABILITY AND STRONG SUSTAINABILITY

In 1991, economist Hermann Daly coined a definition that has within it a concept of necessary balance between man and ecosystem, which leads sustainable development to three general conditions regarding the use of natural resources by man. These conditions are as follows:

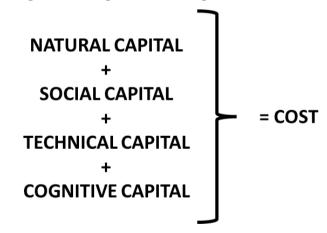
- the rate of utilisation of renewable resources must not exceed their regeneration rate;
- the release of pollutants and slag into the environment must not exceed its carrying capacity;
- the stock of non-renewable resources must remain constant over time.

There are two identifiable strategies that respect the three conditions of equilibrium: weak sustainability and strong sustainability.

1.6.3.1. Weak sustainability

The weak sustainability believes that artificial capital can eventually replace natural capital thanks to technological innovations, so the focus is on maintaining a stock of total capital (natural and artificial). It is therefore a question of keeping the sum of all contributions constant.

According to this theory, the uncontrolled exploitation of natural capital would be acceptable if the total produced capital were of equivalent value.



Picture n.4: Scheme of weak sustainability - Adaptation from: Bianchi A., 2009

Future generations would however enjoy a derived wealth and even in the event of irreversible damage (destruction of forests or extinction of living species); sustainability would also be achieved because the capital produced would produce proportionate wealth. Some comments:

- it is a strategy that can only be used in the short term;
- economic and technological capital are products of human activity based on the transformation of the natural capital that supplies the raw material;
- without the contribution of natural capital it is not possible to obtain economic capital or technological capital;
- it is therefore clear that there is no interchangeability between the different types of capital.

1.6.3.2. Strong sustainability

Strong sustainability recognises the need to keep the natural capital stock constant over time, which is considered not substitutable with artificial capital; provides for a relationship of complementarity and not substitutability between natural capital and that produced by man, since natural resources cannot be replaced even by the increase of other values such as social or economic ones. This theory considers it lawful to consume resources until the ability to restore them is exceeded.

NATURAL CAPITAL = COST

SOCIAL CAPITAL = COST

TECHNICAL CAPITAL = COST

COGNITIVE CAPITAL = COST

Picture n.5: Scheme of strong sustainability – Adaptation from: Bianchi A., 2009

Some considerations:

- it is the only long-term strategy that can ensure that human and economic activities can continue to exist;
- if taken to its extreme, it can cause immobility in order to avoid any impact on the environment and thus slow down technological innovation.

1.6.3.3. Intermediate positions

It should be noted that there is also the theory of who, like Arrow⁵³, believes that while accepting the substitutability between natural resources and reproducible capital, it can determine an inefficiency (non-optimal) of the path of sustainable development.

The recognition of the existence of an intrinsic value of environmental resources stands in between the concepts of weak sustainability and strong sustainability; the existence, that is, of rights proper to environmental goods independent of their current or potential

⁵³ Kenneth Arrow, Nobel prize for the economy in 1972.

use (ability to provide services) by mankind. Every component of the ecosystem (fauna, flora, etc.) thus has a right that must be protected in economic development.

When an activity increases the threat to human health or the environment, precautionary measures must be taken, even if some cause-effect reports are not fully scientifically substantiated. This type of approach is called the precautionary principle.

It is particularly suitable for long-term activities in respect of which there cannot simply be a attribution of responsibility to those who have carried them out, because the time is too long for a verification. The construction industry is one of them.

1.6.4. SOCIAL SUSTAINABILITY IN THE 2030 AGENDA

In September 2015, at the United Nations General Assembly, countries around the world signed the 2030 Agenda for Sustainable Development by signing its 17 Goals (SDGs) and agreeing on a concrete "List of things to do for people and the planet".

The SDGs together with the Paris Agreement on Climate Change represent the international reference framework for sustainable development from an economic, social and environmental point of view.

The key words of the 2030 Agenda are to think about a future without poverty, with ample access to decent work, health and education for all, while preserving the environment in which we live. The 17 development objectives are divided into four blocks: 1) the social pillar, 2) the economic pillar, 3) the environmental pillar, 4) the governance of the system (sustainable development, in fact, cannot be implemented without adequate multi-level governance).

Sustainable development policies have traditionally been focused on the environment. Over time the concept of sustainability has gradually expanded to include environmental and social challenges in the reflections inherent in our development model, as a condition for achieving a model of economic growth that is both socially inclusive and ecologically sustainable.

While the first two pillars of sustainability, environmental and economic, have been extensively studied and elaborated over the years, social sustainability has only recently entered into the reflection as a fundamental support of the general infrastructure of sustainability: the 2030 Agenda has defined the "universal, ambitious, global, indivisible and interconnected objectives aimed at eradicating poverty, combating growing inequalities and discrimination, promoting prosperity, sustainability, environmental responsibility, social inclusion, gender equality and respect for human rights, ensuring economic, social and territorial cohesion and strengthening peace and security".

There is now a clear awareness that without social cohesion it will be difficult to achieve the Sustainable Development Goals - with particular reference to the key objective expressed in the 2030 Agenda of leaving no one behind and greater welfare for all. It is in this context that the achievement of decent working conditions, gender equality, equal, equitable and decent pay and the eradication of discrimination and poverty must be implemented on an equal footing with economic growth in a smarter and greener economy, which is based on the dissemination and adaptation of skills and education.

In recent years, Europe has faced a number of challenges with a clear social impact, requiring a global response to local, national, European and global political action:

- the growing inequality between generations requires a stronger focus on the planet that will be delivered to young people who will find themselves living in a context of diminishing social, health, economic and environmental opportunities and resources;
- climate change, dwindling resources and food insecurity in the least developed countries increase forced migration to the more developed countries, which are facing a huge demographic imbalance on their side, and a growing shortage of manpower and professionalism not only in industry but also, and above all, in the field of personal care and services;
- working conditions, economic growth, Equality and the fight against poverty are closely interlinked issues within the objectives of the 2030 Agenda and can only be addressed in the framework of a common platform capable of combining economic development policies (increasingly green) capable of producing decent work, on a level of gender equality and equality between workers from wherever they come from;
- territorial disparities not only between regions and areas in each country, but also between different European countries and between European countries and the rest of the world put at risk the future development of many territories. Access to basic services, opportunities and infrastructure (transport, broadband, health, schools, etc.) is unevenly distributed among the population with remote, rural and disadvantaged regions that are lagging behind and lack services;
- the eradication of poverty and discrimination are basic social conditions necessary to achieve the objectives of sustainable development and cannot be achieved in a context where discrimination against migrants prevails, vulnerable people, women, ethnic or religious minorities, LGBTI.
- these are just some of the many complex interconnected challenges that require an integrated response, which the 2030 Agenda for Sustainable Development has the potential to offer, if implemented with a strong focus on the pillar of social sustainability.⁵⁴

1.6.4.1. The definition of social sustainability

When talking about societies, one must consider various political, environmental and economic factors; indeed, in order to describe a society, one must also assess the conditions within which it lives, the place where it moves and develops and how it tends to do so. We can start from the concept of society by analyzing its definition: *"coexistence of intellectual and moral beings who tend to implement a purpose allows their nature"*⁵⁵. This shared aim must be evaluated according to the characteristics mentioned above, but it is understandable how the search for well-being leading to development is the common objective of society.

⁵⁴ https://welforum.it/la-sostenibilita-sociale-nellagenda-2030/

⁵⁵ M. e G. Niccoli, *Dizionario enciclopedico universale*, Editrice Sansoni, Firenze, 1966

Social sustainability is the set of actions aimed at achieving equity in society. To this end, social sustainability implies a diversity of actions that have a legal, economic and cultural impact. In general, social sustainability is achieved through the elimination of poverty and the realization of basic conditions of dignity for the life of every person. It implies the elimination of the inequality of benefits between the social classes of a country and between the different populations of the world.

In particular, social sustainability concerns the right of a human being to be able to live in an environmental and socio-economic context that allows him to express his individuality. This benefit is not only limited to the legitimate interest of every person, but is generally linked to the broader objective of building a better society for the whole community. As a result, this sustainability objective is also implemented by strengthening social cohesion and allowing all citizens to act in political decision-making processes. Moreover, social sustainability is also achieved by the protection of minorities, especially in terms of rights and the expressive guarantee of their traditions and beliefs, within the limits of established laws⁵⁶.

Social issues are closely linked to economic and environmental issues. Just think of some current issues of social sustainability and how they relate to economic and environmental imbalances. For example, in so-called developing countries, the effects of climate change imply problems of survival for populations due to food insecurity or rising seas that eliminate livable territory. Dramatic situations that push individuals belonging to these populations to forced migration. In different ways, in so-called developed countries, issues of social sustainability are linked to increasing inequality between generations and the fight against poverty or racial and gender discrimination⁵⁷.

As the Cambridge Institute for Sustainability Leadership⁵⁸ states, "addressing sustainability requires changes at the system level rather than action on individual elements". Such systems must therefore consider not only the development of an entire business area, or the protection of an ecosystem as a whole, but the balance of the same relationships between humans. It means, for example, that social sustainability implies that collective economic growth can be pursued without seriously sacrificing the quality of life of individuals. Guaranteeing conditions of well-being, understood as conditions of human well-being, is in fact a social responsibility that implies concrete actions that affect macroeconomic systems and the relationship with planetary natural resources. For this reason, social sustainability actions are an indispensable foundation for the effective implementation of environmental and economic sustainability.

⁵⁶ E. Tiezzi, *Che cos'è lo sviluppo sostenibile*, Donzelli Editore, Roma, 1999

⁵⁷ G Casoni e P. Polidori, *Economia dell'ambiente e metodi di valutazione*, Carocci, Roma, 2002

⁵⁸ The University of Cambridge Institute for Sustainability Leadership (CISL) is a globally influential institution that develops leadership and solutions for a sustainable economy.

1.6.5. ENVIRONMENTAL SUSTAINABILITY AND ENERGY EFFICIENCY

1.6.5.1. Sustainability in the building sector

The actions to limit the processes of transformation and therefore the impact on the environment in the building sector, concern the reduction of the consumption of materials and products, setting priorities for recovery, recycling, reuse, demolition and disposal. However, in order for this to happen, it is necessary to refer to detailed designs, serial processes with less waste of processing, higher speed of plant and construction site management. It is crucial, therefore, rethink technological innovation in function of new aspirations moving in the direction of energy savings through the adoption of solutions and lifestyles capable of reducing energy consumption and use in a more prudent and controlled materials and products to the in order to reduce the ecological footprint⁵⁹.

1.6.5.2. The impact of the building sector on the environment

In recent decades, the international scientific community has made great efforts to quantify the potential impacts on climate due to greenhouse gas emissions from human activities, as a result of economic and demographic growth. In particular, the latest Climate Change Assessment Report (AR5) presented by the Intergovernmental Panel on Climate Change (IPCC)⁶⁰ has declared a historical peak of concentrations of carbon dioxide, methane and nitrous oxide in the atmosphere: For example, in the period between 2002 and 2011, emissions from human activities increased by 54% compared to 1990. These emissions contributed to global warming, which increased by 0.85°C between 1880 and 2012; 0.72°C between 1951 and 2012, causing significant environmental damage such as rising sea levels, increased ultraviolet radiation, more violent and dangerous atmospheric events⁶¹.

The desire to limit emissions and the resulting climate change is evident through the signing of the 2015 Paris Agreement⁶², with which the objective of keeping the temperature below 2°C compared to pre-industrial levels has been set. A further step

⁵⁹ The Ecological Footprint is a complex indicator used to evaluate human consumption of natural resources against the Earth's ability to regenerate them.

⁶⁰ The Intergovernmental Panel on Climate Change (IPCC) was established in 1988 by the United Nations Environment Programme (UNEP) and the World Meteorological Organisation (WMO) to assess climate change and the potential potential environmental and socio-economic impacts arising from it.

⁶¹ Cellura M., Guarino F., Longo S., Tumminia G. (august 2008), *Climate change and the building sector: Modelling and energy implications to an office building in southern Europe*, in *Energy for Sustainable Development*, Volume 45, pp. 46-47.

⁶²Signed in 2015 at the 21st Conference of the Parties to UNFCCC 1 (COP21) and signed on 22 April 2016 in New York by more than 170 countries. The report highlights a number of climate change impacts that could be avoided by limiting global warming to 1.5° C instead of 2°C or more. For example, by 2100 sea level rise on a global scale would be 10 cm lower. with a global warming of 1.5° C versus 2°C. The probability that the Arctic Ocean will remain in the summer without sea ice would be one in a century with a global warming of 1.5° C, while it would be at least one per decade with a global warming of 2° C. Coral reefs would decrease by 70-90% with a global warming of 1.5° C, while with 2° C they would lose virtually all (>99%). (https://www.cmcc.it/ipccitalia/i-governi-approvano-la-sintesi-per-decisori-politici-dellipcc-special-report-on-global-warming-of-1-5c/)

forward was made by the IPCC, in October 2018, with the approval of the report called "*The Special Report on Global Warming of* 1.5 °C" in order to limit global warming to 1,5 °C compared to 2 °C. The incentive to take new paths towards a more sustainable society is due, above all, to recent studies showing the worsening concentration of greenhouse gases in the environment: according to some analyses, An increase in average ambient temperatures of 3 °C by 2100 with the risk of causing serious environmental damage.

In this context, the construction industry is among the main responsible considering that not only consumes large amounts of energy and energy sources to meet the ever increasing needs of the population that requires to live in conditions always best, but also because it pollutes the environment and produces greenhouse gases⁶³. This sector, in fact, in addition to the consumption of 40% of the materials present in the entire economic system, generates 40-50% of global greenhouse gas emissions and acid rain agents⁶⁴. The development of these issues has become a matter of great interest for the energy and environmental policies of European countries, which consider the construction sector, a key area for the achievement of the objectives aimed at reducing emissions. This is addressed in Directive 2010/31/EU of 2010 on the energy performance of buildings, as a replacement for Directive 2002/91/EC, which forms the basis for national legislation to be implemented in the Member States. In particular, this standard specifies that by the end of 2020 all new buildings will be almost zero energy building (nZEB) defined as buildings with very high energy efficiency⁶⁵. These buildings are characterized by the consumption "almost zero energy"⁶⁶ during the use phase; the very low or almost zero energy needs should be covered by energy produced locally from renewable sources, such as solar (photovoltaic and thermal), wind, geothermal and biomass, achieving energy efficiency during the use of the same⁶⁷.

However, the reduction of energy consumption during the use phase is only one of the aspects to be taken into account in order to move towards environmental sustainability in buildings⁶⁸. In fact, in order to correctly quantify the total energy consumption used in the building process, it is also necessary to consider the built-in energy related to the entire life cycle of the building, concerning: the extraction of raw materials, the

⁶³ At European level about 36% of CO2 emissions are related to buildings (*Climate change and the building sector: Modelling and energy implications to an office building in southern Europe*).

⁶³ Valentini V.; rel. Serra V., Giordano R., *Thesis: Operating energy ed embodied energy a confronto: caso studio di un edificio residenziale di medie dimensioni = Operating energy ed embodied energy comparison: case study of medium size residential building.*

⁶⁴ Ivi

 $^{^{65}}$ www.cmcc.it/ipccitalia/i-governi-approvano-la-sintesi-per-decisori-politici-dellipcc-special-report-on-global-warming-of-1-5c

⁶⁶ La definizione "edificio a energia quasi zero" si riferisce all'eventualità di produrre in loco l'energia rinnovabile senza farne un vincolo lasciando spazio ad altre possibilità soprattutto nella definizione dei confini del sistema (Lavagna M., Paleari M., Mondini D. (2011), *Murature ad alte prestazioni: valutazioni termiche, acustiche, ambientali ed economiche di soluzioni di involucro in laterizio,* Maggioli Editore, Milano).

⁶⁷ Lavagna M., Paleari M., Mondini D. (2011), Murature ad alte prestazioni: valutazioni termiche, acustiche, ambientali ed economiche di soluzioni di involucro in laterizio, Maggioli Editore, Milano.
⁶⁸ Ivi.

production of materials, demolition and waste disposal. We can find two main types of energy that buildings require:

- direct energy, properly called "Operating Energy" (OE), which is the energy used during the phases of construction, prefabrication, transport and maintenance. In particular, it concerns the use phase of the building referring to the energy consumption used to maintain comfort conditions inside the premises;
- indirect energy, more properly defined as "Embodied Energy" (EE), which refers to the final energy necessary for the functioning of the production process of the materials used and the energy stored by the product leaving the production process⁶⁹.

In order to move towards a more responsible and less impactful design from the environmental point of view, it is necessary to review and modify current construction practices and to seek new methods and technologies to reduce high energy consumption.

1.6.5.3. Pursuing sustainability through innovation in the construction industry

"An innovation can come from chance or necessity, from a fortuitous situation or, more often, from the will to give solution to a need or a problem that you are not able to solve in the conventional ways"⁷⁰. Sustainability expresses a concrete priority on which to intervene to correct distortions, recover the balance compromised and adopt solutions that limit future impacts on the environmental system. The desire to respond to this need has led the research world to experiment with new solutions, systems and products.

As mentioned above, the construction sector is one of the areas where action can be taken considering that it is one of the main responsible for environmental impacts due to the large amount of waste produced and non-renewable resources used. One can therefore think that innovation finds in building sustainable one of the greatest challenges ever accepted. To respond to this new need in the building sector, it is necessary to reformulate the modalities of intervention according to the new environmental requirements required by users and the entire political and socio-economic system. In particular, the current developments of technological innovation in the field of industrial production for the building industry, see market forces and ethical and environmental demands, aimed at combining aspects of economic and ecological efficiency, Promoting production processes characterized by reduced impacts in the methods of use of resources, organization of production cycles and management of the life cycle of products. In this context, the quest for competitiveness translates into a move towards eco-efficiency. It is able to combine seemingly irreconcilable objectives such as those of "economic excellence"⁷¹ and allow the company management to

⁶⁹ Valentini V.; rel. Serra V., Giordano R., *Tesi: Operating energy ed embodied energy a confronto: caso studio di un edificio residenziale di medie dimensioni = Operating energy ed embodied energy comparison: case study of medium size residential building.*

⁷⁰ Sinopoli N., Tatano V. (2002), *Sulle tracce dell'innovazione tra tecniche e architettura*, Edizioni FrancoAngeli, Milano.

⁷¹ Girardi C.; rel: Lossario M., Thesis: Eco-efficienza e innovazione tecnologica nella produzione industriale per l'edilizia. Criteri per la selezione di prodotti per gli interventi di retrofit.

move towards achieving some of the most important goals of sustainable development. Among construction operators, the first to take this new path were the manufacturers of materials, components and systems that have taken this opportunity to respond to environmental problems and to expand their market in order to be more competitive. Some companies have managed to achieve beneficial results through "ecologically oriented strategic positioning" which consists in identifying a mix of alternative products or constructive strategies, capable to meet the requirements of environmental comfort and resource saving, through the use of techniques and design methodologies suitable for the needs of health and well-being, ease of assembly, reversibility, durability.

It is clear, as one of the most important issues is that of waste that is released into the environment as a result of industrial production and end-of-life disposal of goods. To limit the problem, industry experts have accepted the so-called "innovative challenge of the next millennium", defined in this way because they are trying to find new and effective solutions such as, for example, the use of recycled materials and products. The latter, despite the shared mentality of society are considered inferior in quality and performance compared to traditional materials⁷², represent an excellent alternative to the problem of waste reduction and disposal.

As for sustainable construction techniques, however, there is the current great interest of dry construction and the demountability of buildings: Also in this case, we try to respect the principles on which the sustainability of the building is based, which consists in eliminating waste and valuing waste. Through these methods it is possible to conceive buildings where maintenance, adaptation, replacement of parts and, at the end of the cycle, demolition and recovery of materials and products are simplified. This leads to design thinking not only of subsequent maintenance, replacement and demolition, but also to build buildings in which every single part consists of easily foldable elements. The use of recovered materials becomes decisive for the need to implement modifications or, in some cases, partial or total demolition of the buildings, since they tend, for functional reasons, to age long before the materials with which they are made. It can be said, therefore, that between new technologies and the use of innovative materials, in the near future of sustainable construction, to respond more fully to sustainable demand, we must not only focus on the experimentation of new products and construction techniques, but also decisive are the process innovations that provide the procedures and tools to optimize the new objectives that must combine the environment and development. It is therefore essential to change the roles of operators within the building process (clients, designers, builders, manufacturers of materials and components) outside (international institutions, government, local authorities).

1.6.5.4. Designing the sustainable building or green building

The international regulations on the control of harmful CO_2 emissions and the national ones on the energy certification of buildings that are spreading in many parts of Europe

⁷² This refers to "new products" on the market used in construction. These are products obtained from irrepressible production cycles that produce low-cost goods, of short duration when compared with those made by craftsmen, and at the same time dissipate precious resources and throw huge amounts of waste into the environment.

have directed the building design to an increasing attention to the phenomenon of emissions, energy waste and water recovery.

For some years now, many designers have been developing low emission or zero emission buildings that have all the necessary precautions to improve or reduce their ecological footprint (ecological footprint) in the external environment. It has come to conceive buildings designed, built and managed in a sustainable and efficient, as well as certified, which are called Green Building. Today, however, not only costs are an obstacle, because incentives and economic return must still be guaranteed, but also the aesthetic side often affects the use of these technologies. Just think of the non-integrated solar panels, the expanses of photovoltaic panels in desolate or agricultural areas, the outgoing pipes from the gardens for the natural or forced air circulation and the water recovery tanks. On the market, however, you can already see the first countermoves, such as photovoltaic tiles or pipes that can be masked in garden furniture. However, this does not alter the fact that some of these operations require space and important investments that are at odds with the theories of low land use and economic sustainability. The green building, however, is an overall organic project that consists of not only the use and study of technical material elements, but rather is based on the study of intangible elements such as ventilation, the location and orientation and may interact more positively with the habitat because care is taken to maintain the integrity and natural characteristics of the site, including appropriate landscape design, selecting materials that have a low energy content embedded and possibly produced locally. A key point of these new buildings is therefore their use.

Le Corbusier saw the house as a car for living, and the comparison is apt if you think that a car consumes little according to how you drive it; So having a building that consumes little energy and disperses even less is useful if you use the precautions that allow the building itself to be efficient to the maximum. We do not want to turn this paragraph into a dispensation of advice on the correct use of a green building but it is useful to know that, as for everything, you have to know (you return to the limit of knowledge) what are the potential of the object you have in your hands. Once again, the debate is about information and therefore about adopting a proactive policy that allows people to be aware of the subject and to make them understand that future investment must be sustainable. In fact, if the person who in his role in construction is not aware of what a well-designed building, with all the precautions of energy savings can give, then he will focus only on the cost of the investment and today, as mentioned above, costs are often still high.

The points of the Leipzig Charter⁷³ drawn up on the basis of the meeting between the ministers responsible for urban development of the Member States of the Union in 2007 can be summarised as follows:

1. creating and ensuring high quality public spaces;

⁷³ The Leipzig Charter on Sustainable European Cities, adopted in 2007 during the then German Presidency of the EU Council, is a document containing a set of principles aimed at guiding European cities towards a greater degree of sustainability, resilience and inclusiveness. It has helped to define the concept of integrated urban development at EU level and has influenced the development of EU initiatives in this field, such as the urban agenda.

- 2. modernizing infrastructure networks and improve energy efficiency;
- 3. proactive innovation and educational policies;
- 4. special attention to slums within the urban context;
- 5. pursuing strategies to improve the physical environment;
- 6. strengthening the local economy and the local labour market;
- 7. proactive education and training policies for children and young people;
- 8. promoting efficient and accessible urban transport;
- 9. reducing air pollution and reduce water consumption;
- 10. promoting social cohesion and quality of life.

In parallel with the guidelines of the Leipzig Charter it is necessary to confront the territory by understanding what it needs and what will allow the project to integrate with the existing one. One should not consider a green city as an independent place or as a unique place of well-being but as a place that brings well-being. It improves the quality of life thanks to the application of new technologies and new theories that allow it to fit into the context without distorting the order imposed by that culture and the territory that has been formed over the years. In short, we need to think about the future but always with an eye to the past as the theory of sustainable development wants.

Urban quality. It is necessary to bring an improvement in the quality of life. First of all, in this case too, citizens must be informed and made responsible for a social and Community culture in order to maintain high quality. There are many possible interventions, from creating livable public spaces to increasing green and pedestrian areas, from using renewable energy for public spaces to improving traffic management and public transport. It is also necessary to integrate everything with the existing, positively influencing what until then appears degraded. One cannot think of creating an area of high quality and of an end in itself without influencing what is not there to improve the quality of life. The possible interventions can be: the use of low emission and energy saving technologies; an aesthetically valid but above all functional urban furniture; new polarities for a functional quality; greater accessibility to urban spaces; an efficient infrastructure system; green areas or rest areas aimed at relaxation and meeting, a policy of information and awareness on the use of urban spaces.

Vitality 24H. The structure of the physical space is not alone a determining factor for safety, but can contribute strongly together with the linearity of the views, the lighting, the shape of the vegetation, the structure of the paths. The commercial activities and their opening in the evening or on Sundays are elements of great importance for the vitality of urban spaces and therefore their safety. The schedules of services, activities, means of transport, shops, therefore the rhythms and times of life of the urban space have a determining influence on the vitality of the city, and also directly and indirectly affect safety. The main actions to obtain the vitality of an urban area are: a functional mix that coordinates the human presence on the territory, spaces for play and for the community that are points of attraction, new polarities that exploit external flows of people (e.g.

tourist accommodation); mobility that is functional and fast to ensure presence on the territory.

Wellbeing. The wellbeing that must be developed in an urban planning project is mainly the social one in order to allow the citizen to express their potential in the community. To achieve it, we must intervene on the economic side, creating work and trade within a well-structured environment of high quality (urban) that becomes a bearer of vitality and safety. Therefore, well-being must not only be linked to the economic side; in fact, if there are no services and the possibility of investing in that area the capital received, we cannot think of a development or a renewal. The main actions to pursue the path of well-being are: the implementation of an energy saving policy that allows families to save; a complete set of services (as far as the territory is concerned); greater accessibility to places and information; efficient and fast mobility; the design of spaces that promote social cohesion, fun and relaxation; the creation of a functional and typological mix that allows the satisfaction of different needs; a greater policy of interaction between man and nature with the aim of preserving each other; the inclusion of activities that bring work and money to the city.

Viability. This aspect must be understood as the real possibility of realizing a project both in economic terms, in terms of time, and in terms of space. One aspect of sustainability is also economic and it is therefore important to think about investing in a sustainable way, using the resources present in the place, confronting the environment and the climate of the place, with the lifestyle of people and their habits. In this way a project is feasible and useful for the enhancement of a territory. The main actions to make a project feasible are: the use of alternative energy sources that allow a rapid economic return of expenditure; the promotion of technologies that have low maintenance and are easy to transport and implement; calling investors (including private individuals) who have the opportunity to invest a stronger currency in the territory and in economic activities.

Management and Maintenance. These are inputs that the designer must necessarily evaluate before a project, despite affecting the resistance over time of what is achieved. They concern both the urban and public sphere and the private one of the buildings owned. Considerations on the territory must influence the choice of materials and the location of buildings in the space and provide places and spaces that are easily accessible to the citizen and the worker. Aspects therefore that do not directly address the urban economy but also the civilization of those who inhabit the space and live it every day that have the obligation to manage it and keep it always functional and at the same time functional. The main actions that promote management and maintenance control are: the choice and use of technologies that are functional, transportable and in need of little attention; the use of quality materials; the design of spaces and places that are bearers of urban quality and therefore allow the minimum of maintenance and maintenance of public spaces.

Valor. A good project and therefore a good investment are bearers of value both from the point of view of the urban image, both from the economic point of view. The urban image acquires value by implementing choices consistent with the context and with the habits

of those who live it but also by proposing innovative forms and types that become recognizable elements for a territory. The economic value is important because the project must take into account possible activities that allow the development and circulation of capital with the aim of territorial growth. At the building scale you can think of a welldesigned building (green building) that already for this reason acquires value and consequently is a safe investment; The urban scale must be thought of an element or a set of elements that favor the increase of value of the image of the city remaining linked to the existing context. The actions that favor the increase in value of a city are: the design of quality spaces and buildings that promote the image of the city; the creation of events that enhance the resources of the territory; encourage local production activities; Give impetus to the trade and export of local goods; design of a typological and functional variety that allows a variety of choice and investment.

Recognizability. It is important to have on the territory elements that allow this to stand out from a very large context. One or more recognizable elements sometimes give an image of the place that remains impressed in the mind of those who visit it and can be important points of reference for those who live in that environment. The Eiffel Tower makes us think of Paris, the Sagrada Familia in Barcelona, the Statue of Liberty in New York, the Colosseum in Rome; therefore, we must think of a symbol that over the years becomes an element of cultural recognition, or an element that is the land marker of an economic and social revival. The creation of an urban image that is recognizable becomes fundamental to create competitiveness, well-being and thus improve the quality of life. The actions that favor the recognizability of a place are: the design of a building that is detached from a normal building context and that becomes a symbol of a place, the creation of areas or spaces used to increase competitiveness, the inclusion of state-of-theart services and technologies that will enable information to be provided and thus also to be of interest to other countries.

Conservation. It is an aspect that puts the designer in front of an important problem, that of having to measure with what already exists. Not only the characteristics of the place (climate, resources, etc.) but also elements that must be integrated into the project, such as portions of existing cities or polarities that are part of an already established system. Therefore, conservation means maintaining, integrating, improving and enhancing what already exists, through the wise use of roads and spaces, inserting polarities that do not contrast existing ones but instead are integrated into the existing system. In addition, more ethical issues must be considered, such as the preservation of a territorial identity, one or more cultures and lifestyles, becoming aware that the place is in continuous metamorphosis and growth at an urban level (major infrastructure, airports, tourist flows, etc.). The main actions that can be carried out in order to conserve the assets and the local resources; the insertion of paths and polarities that value the existing patrimony; design places that take into account existing perspectives and views.

Renewal and Development. They are the basis of any large-scale intervention because the objective of the project is to improve the quality of life or relaunch a country in difficulty. New technologies, new theories and new concepts are the basis of renewal, and bring with them the goal of developing a territory improving the conditions of liveability. In an urban planning project there are many actions that lead to a renewal and a (sustainable) development: the reduction of polluting emissions; using cutting-edge technologies already in the public sector or transport (e.g. electric trams); improving traffic management; prioritising traffic; reducing water consumption; recovering water in basins; increasing green areas; optimizing public space design.

Chapter II - The relationship between Social Housing and urban regeneration

2.1. SOCIAL HOUSING AS A DRIVER FOR URBAN REGENERATION

2.1.1. THE CONCEPT OF "URBAN REGENERATION"

The term "urban regeneration" has a "multidisciplinary" and multidimensional nature and includes not only various types of redevelopment of the territory, but goes beyond the physical and economic context, involving mainly the social sphere and the effects that these processes have on it (Reale, 2012).

The reference areas for urban regeneration interventions are generally those located in marginal areas, in suburban areas or in neighborhoods even not peripheral to the city center, where situations and perceptions of degradation have accumulated, deficiencies in the system of services and concentration of population in conditions of fragility. However, the reference models for the policies of transformation of cities may not be sufficient if the separation between individuals, citizens, social groups, associations and physical urban space remains. For this reason, the architectural design of urban spaces also has the task of stimulating the processes of participation and aggregation of citizens. The dream that is cultivated of a future city is that in it there are permanent places where it is possible that the desires and needs of the inhabitants take shape in projects that return to the urban space the sense and value of a collective space that recalls a own identity (Vicari Haddock and Moulaert, 2009).

Cities play the role of protagonists in the theme of sustainable development of the territory⁷⁴, increasingly having to face various changes as a result of the processes of deindustrialization, migratory movements and climate change⁷⁵. The processes of transformation of cities or parts of them, especially of public space, may focus on the architectural, technological and environmental fields, but also on social and economic aspects.

Re-generating means reconstituting, making it efficient again; in the social sense the term expresses a process aimed at returning to the original greatness. In urban planning, therefore, the concept of regeneration can mean reborn to new life, restoring the urbanity of the city, understood both as quality of life and social relations as well as a cohesive physical and social entity⁷⁶.

⁷⁴ Indovina, F. (2009). "Prefazione". In F. Musco (Cur.), *Rigenerazione urbana e sostenibilità*. (pp. 9-16), Franco Angeli, Milano.

⁷⁵ Boeri, A. (2017). La rigenerazione degli spazi urbani: qualità e sostenibilità ambientale. In V. Gianfrate & D. Longo (Cur.) Urban micro-design: tecnologie integrate, adattabilità e qualità degli spazi pubblici. (pp. 11-13). Franco Angeli, Milano.

⁷⁶ Vicari Haddock, S., & Moulaert, F. (2009). *Rigenerare la città: Pratiche di innovazione sociale nelle città europee*. Il Mulino, Bologna.

In regeneration operations it is not always easy to establish a boundary between the social and physical context as the problems to be solved are rarely only of a physical nature or related to real estate. The physicality of interventions resulting from regeneration programs is necessary as it is a tool to lead to results of another nature, such as new occupations, problem solving and social dynamics, etc. The main objective of the redevelopment processes must therefore consider the recognition of the basic rights of citizens working to meet their fundamental needs and always keep in mind the importance of giving to citizens spaces where they do not are called to be consumers but bearers of interests and equal rights and duties⁷⁷.

While urban regeneration has as its main objectives the promotion of activities aimed at reducing social inequalities, eliminating situations of marginalisation and segregation, ensuring a better quality of life and living for citizens, Therefore, spatial planning processes can only start from the knowledge and analysis of its recipients: the citizens themselves.

Through a quantitative data collection approach, a socio-demographic profile of a given territory, city, suburbs, neighborhood can be outlined by crossing the demographic data (number of inhabitants, average age, unemployment and education rates, etc.) with the territorial aspects you get a portrait of the territory and a starting point to understand what are the needs of citizens and identify where urban design needs to intervene.

The need for complex and integrated responses is often a key element in assessing the economic and financial sustainability of urban regeneration projects, In which an essential part is given by the real estate and infrastructure component that absorbs most of the available resources. In this context, social innovation becomes the engine of new processes, for a new way of conceiving life in cities, according to a "smart" and "circular"⁷⁸ perspective, in which the community becomes the recipient of services and the protagonist of these processes of renewal.

This has led to the emergence of a new concept of "integrated sustainable urban development", which has become a fundamental cornerstone of the 2030 Agenda for Sustainable Development established by the United Nations⁷⁹, which has therefore included, among other Sustainable Development Goals (SDGs), the SDG 11 "Make cities inclusive, safe, resilient and sustainable" which aims to transform urban centres into sustainable cities through access for the whole population to adequate housing, basic services and transport, This is particularly true for the most vulnerable people.

This profound transformation of the concepts and processes of urban regeneration has seen the appearance on the scene of new subjects, such as public enterprises, private, local

⁷⁷ Ivi, p. 20.

⁷⁸ Pultrone G. (2017), "La rigenerazione urbana come occasione di innovazione sociale e progettualità creativa nelle periferie", *Techne - Journal of Technology for Architecture and Environment*, 14.
⁷⁹United Nations General Assembly resolution on the "New Urban Agenda", adopted on 23 December

⁷⁹United Nations General Assembly resolution on the "New Urban Agenda", adopted on 23 December 2016.

authorities, banking foundations, credit institutions, third sector organizations and cooperatives⁸⁰.

The most significant and innovative experiences of recent years show a growing awareness, by the promoters of the interventions, with respect to the importance of taking care of both the architectural and construction of the redevelopment of the "hardware" component as the "software" component of urban regeneration, consisting in the economic, social and cultural reactivation of places. In fact, it is becoming more and more evident that to reactivate the places need not only to be physically retrained, but also to be designed in order to attract and trigger a series of functions, economic and social, to ensure its long-term viability and sustainability (Ministry of Economic Development, 2020).

New interventions also tend to show increasing interest and attention to the role of communities in regeneration through a more attentive listening to their expectations (the presence of spaces for the community, the presence of greenery and services and the infrastructure of sustainable mobility) and attention to the ways in which community participation can be activated so that they can contribute actively, including at the design and development stage, the construction of living and significant places (Ministry of Economic Development, 2020).

The centrality of social impact in new urban regeneration projects, in addition to being a stated objective of regeneration processes, also favored by the promotion of entrepreneurship and widespread social innovation, becomes a system for evaluating and measuring the social impact generated by these processes and a tool for attracting investment (Ministry of Economic Development, 2020).

2.1.1.1. Sustainability and urban regeneration

Urban regeneration is an important issue and can be understood in all respects as a policy aimed at the pursuit of sustainable development. The term "urban regeneration" means the process through which you act on the city to give it a new and competitive: it is an activity aimed not only at a physical redevelopment, necessary to revive the urban image, At the aesthetic level, but is accompanied by cultural, social, economic and environmental interventions, aimed at increasing the quality of life, respecting the principles of environmental sustainability and social participation. The planning processes are integrated by processes of communication and participation, in order to activate transformations of the city, prompted by the needs that emerge from the real life of the inhabitants. The idea behind it is that the city rethinks itself. Characterizing elements of urban regeneration are (Giuliani, 2020):

- recover abandoned spaces from production processes;
- restoring a new environmental, economic and social quality to deprived neighbourhoods;

⁸⁰ Rodotà S. (2018), *I beni comuni, l'inaspettata rinascita degli usi collettivi*, curated by Preterossi G., Capone N., La scuola di Pitagora editrice, Napoli.

- liberalise urbanized areas to be transformed into services and places of aggregation;
- limit the urban dispersion;
- reduce the environmental impact inherent in the built environment;
- limit the consumption of soil;
- encouraging the participation of citizens.

Recalling the 2030 Agenda, one of the objectives that seems particularly central is Goal 11 (Sustainable cities and communities), since it presents multiple relationships with other Objectives and because it represents perhaps the Goal of most direct realization thanks to the concrete actions that can be introduced by urban and territorial planning.



Picture n.6: Interconnection between Goal 11 and other Objectives for specific indicators - ISTAT, 2019

Objective 11 appears to be a transversal Objective, which concerns every choice in the municipal context (and not only); this is even more evident when you consider that in Italy 75% of the population lives in urban areas, and the trend is expected to reach 80% within a few years. The city, which is the main centre of economic and technological development, as well as of creativity and culture, becomes the place where the adoption of an integrated strategy, covering the social, environmental and economic dimensions together, It can allow civilization to take the greatest steps towards sustainability (Giuliani, 2020).

Here are the targets related to Goal 11 (UN, 2015); one of these, 11.b, is part of the subgroup of targets related to the 17 SDGs that were expected to be reached by 2020 and 2030:

- 11.1: By 2030, ensure that everyone has access to adequate, safe and affordable housing and basic services and upgrade poor neighbourhoods;
- 11.2: By 2030, ensure access for all to a safe, affordable, accessible and sustainable transport system by improving road safety, in particular by enhancing public transport, with particular attention to the needs of those most vulnerable, women, children, people with disabilities and the elderly;
- 11.3: By 2030, strengthen inclusive and sustainable urbanisation and the ability to plan and manage a participatory, integrated and sustainable human settlement in all countries;
- 11.4: Strengthen efforts to protect and safeguard the world's cultural and natural heritage;
- 11.5: By 2030, significantly reduce the number of deaths and the number of people affected and substantially reduce direct economic losses in relation to global gross domestic product caused by disasters, including those related to water, with particular regard to the protection of the poor and the most vulnerable;
- 11.6: By 2030, reduce the negative environmental impact per capita of cities, paying
 particular attention to air quality and the management of municipal and other waste;
- 11.7: By 2030, provide universal access to safe, inclusive and accessible green and public spaces, especially for women, children, the elderly and the disabled;
- 11.a: Support positive economic, social and environmental links between urban, periurban and rural areas by strengthening national and regional development planning;
- 11.b: By 2020, significantly increase the number of cities and human settlements adopting and implementing integrated policies and plans for inclusion, resource efficiency, mitigation and adaptation to climate change, disaster resistance, and promoting and implementing a holistic disaster risk management at all levels, in line with the Sendai Disaster Risk Reduction Framework 2015-2030;
- 11.c: Support LDCs, including with technical and financial assistance, in building sustainable and resilient buildings using local materials;

2.1.1.2. The report on the pursuit of the Sustainable Development Goals (ASVIS Report)

The ASviS 2019 Report is a very useful tool for monitoring the national and regional situation in Italy in terms of sustainability, especially from a legislative perspective. The Report was presented on 4 October 2019 in the presence of the President of the Republic and numerous representatives of the Government.

The document was produced thanks to the collaboration of more than 600 experts from the hundreds of organizations that adhere to ASviS, and analyses progress towards achieving the Sustainable Development Goals with an increasing degree of spatial detail, proposing actions and action lines useful for the purpose. After a worldwide analysis, in the section "Agenda 2030 in Europe", ASviS provides a picture of the improvement or worsening trends of the European Union in reference to the different Objectives, thanks to the use of composite indicators (one for each Goal), comparing the situation of the different European countries with explanatory graphs. In the section "Agenda 2030 in Italy", within which the Report carefully analyses the legislative evolution of the last 12 months for each of the Objectives, and makes concrete proposals for actions and policies to be implemented. For each Goal, the Report shows the performance of each of the composite indicators built by ASviS according to the AMPI methodology, with a base value (equal to 100), represented by the value of Italy in 2010: when the value rises, the composite index is improving and vice versa. The graph below shows as an example for the Lombardy Region, the composite indicators of Objective 11; this has been constructed considering the following indicators:

- low quality housing index;
- public expenditure per capita to protect biodiversity and landscape assets;
- public expenditure on cultural services;
- municipal waste sent to landfill on total municipal waste collected;
- municipal waste generated;
- exposure of the urban population to air pollution by particulates.

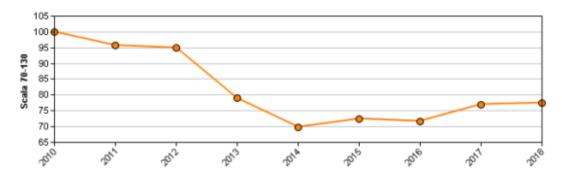


Chart n.8: Lombardy Region percentage deviation index compared to the national context for Goal 11 and according to the respective composite indicator implemented by ASviS – ASviS Report, 2019

Note how the data shown in the above graph, for the Lombardy Region show a clear worsening compared to the base value of 2010, with a slight relative improvement in the last three years considered, This is mainly due to the improvement of the indicators for recycling and the share of waste sent to landfill in total collection, as well as the decrease in the number of people living in houses with structural or humidity problems.

In the Italian context, because of its marked heterogeneity, it becomes particularly important to decline the Sustainable Development Goals to individual local contexts, because a shared programming at the national (or regional) level, like the National Strategy for Sustainable Development, is not effective enough. In order to achieve full sustainable development, planning must also, and above all, come from below, in terms of defining an effective strategy for urban planning. For Mayors and Local Governments, planning choices must necessarily go through the analysis of the Sustainable Development Goals, which promise a more equitable and balanced development of cities; where it is clear that the expression "sustainable cities" should not only refer to energy improvement or the creation of new neighbourhoods: sustainable cities are inclusive cities, It is attractive and lively, where the concept of well-being affects every citizen and passes first of all through that of equity.

In the context outlined above, it is clear that inclusive and participatory housing policies, designed and implemented in a sustainable way, both from an ecological and ethical point of view, can positively affect the quality of life of citizens. Social Housing therefore appears to be a particularly coherent housing model with the described sustainable development goals as, if applied to well-developed projects, allows the environmental recovery of areas often degraded while encouraging greater aggregation and social inclusion through shared actions between economic operators, local authorities and especially citizens.

2.1.1.3. The characteristics of the sustainable city

The city and, more generally, the territory is the place where the conflict between consumption modes and negative effects on the environment is expressed; the change in the pace and speed of changes require a change in planning: changing becomes the means to reach higher levels of coexistence and urban quality, experimenting with new ways of intervention and transformation. To govern change is to try to make the best use of it for the collective good and for the creation of new opportunities. The city, whatever its shape and size, is the result of a politically expressed intention (which must also include the participation of the city): a future intention able to interpret the current trends, the needs, the needs of the inhabitants, taking into account the collective good and the general interest that the city represents (Musco, 2009). In urban areas, the key characteristics that the sustainable city must assume for the near future are the following (Musco, 2009):

1. **The sustainable city regenerates inside**, rehabilitates the environmentally and socially degraded neighborhoods. Land use, which has not previously been urbanised, raises the question of direct and indirect living costs to the environment. On the issue of sustainability, the distribution of the city in a large space, leads to an increase also towards the aspect of pollution. More ecological benefits and social opportunities can be achieved by properly planning a more compact city model.

2. The sustainable city is holistic, it should be considered as a whole and not as a sum of parts (neighbourhoods, services, infrastructure). No urban intervention can be considered sustainable if it satisfies only one of the three areas of action of sustainability (environment, economy, society). An environmentally friendly and technologically innovative project is not in itself sustainable if, for example, it imposes costs so high as to prevent access to a part of the population. Many new neighbourhoods, developed in a European context, with a view to sustainability are respectful of the most advanced technologies applied to construction, but are inaccessible to most. An intersectoral approach to urban policies is a prerequisite for sustainability.

3. **Sustainable cities shall be involved**, envisage future development scenarios and share their definition with their inhabitants. The sharing of choices with the local community must be understood as continuous and recurrent participation. Local government must have a stable attitude to implementing decision-making processes with regard to strategic

choices for a given territory, redefining its role, so that all the actors involved in the processes, The European Parliament must also take responsibility for future generations. New lifestyles can only be developed in cities designed to encourage them⁸¹.

2.1.2. SOCIAL HOUSING AND URBAN DESIGN

According to Baldini (2008), starting from the identification of areas or abandoned buildings, the urban design of an intervention of Social Housing is developed mainly on three levels.

The first level coincides with the study of the spatial context in which the intervention will be inserted as knowledge of the territory becomes central precisely to understand the problems and the strengths to work on during the project. At this level, a mapping will be produced of the central places (squares, markets, public gardens, etc.), urban services (public transport, schools, etc.) and subjects (associations, cooperatives, neighborhood committees, etc.) present in the reference territory.

The second level is related to the quality of the architectural project of renovation or construction of the property. In fact, it has become an imperative for social housing projects to experiment with cutting-edge architectural techniques to safeguard energy efficiency and the environment. The project must also be valid with regard to the aesthetic aspect, just to create a place, nice and modern, that produces beauty in the surrounding space.

The third level concerns the connection of the project with the district in which it is located. Involving the district in the project phases, informing the residents of what you want to do and offering them the opportunity to participate, becomes the approach to use to make the project a starting point for the redevelopment and urban regeneration of the territory. Especially the actions of active participation of residents, starting from the analysis of the study of the problems and resources in the neighborhood, can lead to the creation of various services included in the social housing project that thus becomes not only a place of living, but also a reference place for the territory and a place of sociality. The awareness-raising paths of residents, involving the realities already present on the territory (associations, cooperatives, neighborhood committees, etc.), are possible thanks to numerous tools, such as information leaflets, public assemblies, moments of celebration of the neighborhood or thanks to the creation of a blog on updating the work of the project.

2.1.3. SOCIAL HOUSING AND SOCIAL MANAGEMENT

The other dimension, of which Social Housing projects are bearers, is that of social design. Since it is a stated objective of these projects to achieve social cohesion and integration, the latter two goals are pursued by identifying paths to living. This category includes all those practices of inclusion, accompaniment and facilitation aimed at creating

⁸¹ F. Musco (2009), Rigenerazione urbana e sostenibilità, Franco Angeli, Milano.

a real community of solidarity, cohesive and open to the neighborhood of reference. As this aspect of social programming is becoming increasingly central, multidimensional and complex, a key figure is emerging within the Social Housing projects called Social Manager. These entities generally take a not-for-profit or limited-profit legal form and rest on a strong participatory foundation, as the inhabitants are well represented within them. The social manager is generally an expert in the field of social housing, which is accompanied by the representative bodies of tenants. He stands out from the traditional real estate manager in particular for the centrality reserved for the tenant and the community that uses the services, but also as a subject capable of governing integration and organization processes. It can therefore be a cooperative of inhabitants, an association, a foundation or, in some cases, a public entity that expresses an interest in experimenting with a new organizational model of housing management (Pavesi, *et al*, 2012).

The Social Manager has essentially three roles: community creation, facility management and production of synergies on the territory. The first step for the creation of the community is to draw a profile that will serve to choose the recipients of the project. Following the principle of social mix we try to create diverse communities with complementary needs and strengths. Meetings of knowledge of possible assignees are then carried out thanks to biographical interviews to start identifying possible tenants. Analyzing also the single socioeconomic situations, we select the future tenants who will begin to participate in a process of mutual knowledge to begin to build relationships between them and with the Social Manager. The second step will coincide with the path of accompaniment at the entrance to housing and definition of the shared rules of common spaces, always following the approaches of participatory policies, where each target subject is also the protagonist of the action addressed to him. With regard to the role of facility management, or more of management, the Social Manager will focus on two aspects: one more practical and one more relational. As for the practical aspect, the management skills of the Manager will cover the technical aspects, namely the purchase of furniture, the organization of the move, maintenance, payment of rents and any arrears. As for the relational aspect, the Social Manager must be able to manage relations within the community and with the surrounding territory. Increasingly social housing is presented as a system not only able to offer a housing response but also as a welfare response and this necessarily involves a shift of attention from the issue of construction production to that of management and here: the need for a competent social manager to support a complex function; the idea that management is not a residual and ancillary action, but that it is a stable, continuous asset enhancement of real estate assets and production of social value.

The specificity of social management lies in the ability to integrate the skills of "Property", "Facility" and "Community Management" in a single interlocutor for inhabitants and property; this can create new opportunities for the territory favoring the construction and the estate in the time of the community and a factor of safety for the investors is for the maintenance of the qualitative level of the real estate is for the realization of the objectives of yield (Pavesi, *et al*, 2017). This last point is linked to the methodology described before urban planning, where the mapping of the territory and the

dissemination of information on the project represented two important phases. To these phases is added that of the collaboration of the realities present in the territory to create interesting synergies especially with regard to the management of common places, or open to non-tenants. And it is precisely at this stage that urban design is inextricably linked with social design by creating an integrated project in which these two faces blend harmoniously.

2.1.4. THE INTEGRATED MANAGEMENT PROJECT

In this sense we can indicate "A process of content development that puts the individual parts of the project into system (private space, public space, services, future management, etc.) and tries to coordinate the relevant dimensions - economic-financial, management, social, architectural and environmental - within an overall design"⁸².

The contents of an integrated management project concern certain aspects ranging from economic and financial planning of the various components of the intervention (real estate development, social, environmental and managerial aspects) where each design element is defined on the basis of an assessment of its sustainability, to the social management of real estate by promoting the accompaniment of a group of property management possibly formed largely by future tenants.

Other important aspects are the definition of a reference profile of the future community that ensures a balanced social combination by guiding in this direction the formation of criteria for the allocation of housing and the design of services by including, in the new residential intervention, services that strengthen the relationship of the new intervention with the existing neighborhood and encourage the formation of a sense of community and belonging. To this end, it is necessary to provide an accompanying phase for the start-up and consolidation of the social infrastructure of the community that will continue for several years after the construction of the buildings.

It is also important that the architectural design focuses on the definition of the spaces of relationship, inside and outside the buildings, in such a way as to enhance the social dimension of living and relations with the environment in which they are inserted and on coordination with municipal policies in such a way as to maximize the effectiveness of housing policies.

Also with regard to environmental sustainability, a very broad vision of the concept should be developed, starting from the energy efficiency of the building project, aiming at the promotion of sustainable lifestyles:

*"From the perspective of Social Housing, the architectural project is not an end in itself, but rather a formal synthesis - within an integrated approach - of choices matured in various design dimensions"*⁸³.

⁸²Ferri G., Responsabile Area Progettazione e Sviluppo FHS, *IV _ Il Progetto Sostenibile _dossier*, *Progettazione integrata e sostenibilità sociale*, pg. 5

⁸³Ferri G., Responsabile Area Progettazione e Sviluppo FHS, *IV _ Il Progetto Sostenibile _dossier*, *Progettazione integrata e sostenibilità sociale*.

The aspects of this approach coincide with the application of the fundamental criteria of "sustainable design" that should allow, through careful and precise planning, to minimize the energy consumption of the building and construction costs, producing a built environment of quality and with an effective and economic management that also reduces the risks of social degradation of the town.

To adopt an integrated approach means therefore to ponder every choice having always present the entire cycle of life of the participation and to plan the investments on along period considering the contained economic availabilities which are those of the Social Housing. Overall, the economic commitment devoted today to community building or to particular technological choices, It is to be evaluated considering the savings generated in the future due to greater self-sufficiency of the community or a longer life of the building and its facilities.

These evaluations are indispensable elements for the implementation of Social Housing and, more generally, of sustainable real estate development.

2.2. SOCIAL HOUSING: TYPES OF INTERVENTION AND INTENDED USES

Social Housing projects in Italy have been spreading for several years now, especially in the city of Milan, but also in many other Italian cities and the idea that it is necessary to provide housing solutions that can integrate the dimension of living with that of living in a more general sense acquires more and more weight. Building neighbourhoods and building projects capable of responding flexibly to the changing needs and populations resident and non-resident over time, to converge interests in a given underused area so as to promote its development by a network of actors according to criteria of social, economic and environmental sustainability, promote a policy of land ownership management attentive to the expansion of the social housing system beyond public intervention, appear as some of the main elements around which social housing interventions are structured. As part of the Social Housing projects, the types of intervention can be different, below are the main ones.

2.2.1. TYPES OF INTERVENTIONS

These are new areas where Social Housing structures are implemented or large urban regeneration interventions involving existing neighborhoods where social housing structures are built. In these cases it is necessary to intervene on multiple factors, starting from the urban scale, with the definition of new balances both for space organizations and for the mobility of vehicles, cycling and walking. At the same time, it is necessary to identify a precise type of building that is, given the vast size of the sector, representative of the whole complex and identify the most appropriate intervention strategies.

2.2.1.1. New construction, demolition and reconstruction interventions

It is necessary to consider that the obsolescence of the building stock must be addressed in detail, assuming that the average life of a reinforced concrete building is about 40-50 years, in particular for housing built in the suburbs during the 1960s, often without due care. We need to examine first of all the possibilities of solutions by which we can intervene in the face of the problem.

Demolition and rebuilding can be a solution, and it should be remembered that taking this path means building new buildings that can withstand an earthquake, have indoor parking, greener, consume less energy (gas, oil, electricity). This process supports the improvement of air quality and life: for example, turn on heating or cooling for a shorter period⁸⁴ thanks to excellent insulation, means breathing better, less exposure to respiratory diseases and saving on gas and electricity bills. However, the process has a high cost both in monetary terms and in terms of environmental impact. According to the study of Preservation Green Lab⁸⁵, demolition today is not sustainable. The study suggests, for example, that the city of Portland could meet 15% of its greenhouse gas reduction targets within the next ten years by only upgrading 1% of the buildings that the city plans to demolish in this time frame. The building processes of demolition and reconstruction, in fact, accentuate what is the environmental emergency already present and this is also due to the fact that most of the waste from demolition would not be renewable or reusable.

The reuse of waste produced in the construction and demolition business is an economic opportunity for the sector, contributes to a significant reduction in natural resources and environmental protection, avoids waste and degradation. But the issues are not only limited to costs and disposal, but also to the problem of how, where, and for how long to relocate tenants. When we talk about buildings of such vast dimensions and that affect social classes already in difficult situations, in fact, we must also consider the consequences that any demolition can cause to its inhabitants. For example, the prolonged construction time of a new building means that you have to assess how and where you can temporarily relocate and relocate residents, which weighs on the costs of the entire intervention. The possibility, therefore, of demolishing entire residential complexes and then rebuilding them constitutes a huge waste of resources, less and less available today, In addition to the construction of new buildings and services, these could be used to complete these areas.

2.2.1.2. Interventions for the requalification of the built environment

According to an American think tank⁸⁶, it is more sustainable to redevelop the existing rather than replace it with new zero-impact buildings. The reuse of an old building almost always has less impact on the environment than the construction of one that takes its place. Preservation Green Lab defines the redevelopment of existing buildings much more sustainable than the demolition and subsequent construction of new "green building": the redevelopment of a building that improves its efficiency by 30%, and remains the best solution for the environment, compared to the construction of a new

⁸⁴ http://www.inarsind.org

⁸⁵ http://www.preservationnation.org

⁸⁶ A think tank is a body, institution, company or group, which tends to be independent of political forces (although there is no shortage of government think tanks)It deals with the analysis of public policies and therefore in areas ranging from social policy to political strategy, from economics to science and technology, from industrial or commercial policies to military advice.

building boasting the same efficiency. In fact, according to the study carried out by the US agency, it takes about 80 years to compensate for a new construction, especially in terms of the use of natural resources. According to the European Environmental Agency⁸⁷, one of the biggest threats to Europe is land consumption, which in recent decades has produced much of the development of cities. Moreover, the European Union has established the need to reduce emissions by 80% by 2050. An important challenge, considering that Italian real estate is the second oldest in Europe, after Germany, and that most of the houses have been built for more than 40 years. In addition, redeveloping a building saves valuable environmental resources and energy consumption.

Investing in the redevelopment of a building involves above all economic advantages, both for the owner of the property and for the renter⁸⁸. Thomas Miorin, director of Habitech⁸⁹, has carried out a study on how it is possible to capitalize on the money invested in retrofit even in a very short time: "The gain for the property comes from the increase in value that the property assumes in addition to the decrease in the risk of depreciation and the reduced possibility that it remains vacant. The reduction in energy consumption, of the order of 30%, rewards both the renter who can save money on the bill, and the owner: rent is estimated to be revalued on average by 7%". Upgrading means not only reducing energy consumption but also increasing the value of the property and a decrease in insurance costs. An additional competitive opportunity for the redeveloped property is the energy certification. Certifying a property means ensuring the level of performance achieved in terms of human and environmental health based on several parameters ranging from sustainable development of the site, to saving water consumption, the choice of materials and the environmental quality within the envelope, taking into account the entire life cycle of the building. The international market gives certified properties a surcharge in the sale up to 16% and in the rent from 3 to 6%. Certified buildings also benefit from a reduction in the rate of vacancy, the percentage of square meters of vacant buildings, and lower operating costs. The most comfortable working spaces, in fact, favour the well-being of the occupants because they are qualitatively better from the point of view of livability and health.

2.2.2. SOCIAL HOUSING AND ITS TARGET GROUPS

2.2.2.1. Affordable Housing and the Gray Band

The situation of social housing in Italy shows how we are trying to respond to a new social housing demand, much more consistent and differentiated than in the past. In this context, part of the so-called "grey zone" of the population expresses a need for cheap housing, easily accessible and accessible for short periods (Lanzani, 2007).

⁸⁷ http://www.eea.europa.eu/it

⁸⁸ *Retrofit: l'investimento che fa bene all'ambiente, agli edifici e al portafoglio,* available at http://www.dttn.it

⁸⁹ Habitech - Distretto Tecnologico Trentino per l'Energia e l'Ambiente, is a consortium recognized by the Ministry of University and Research, Born in 2006 with the aim of creating in Trentino business networks and production chains specialized in the fields of sustainable construction, energy efficiency and intelligent technologies for land management.

In fact, many of the factors that have led to the widening of housing deprivation, such as job insecurity and mobility, increased immigration and the increase in "crises" within households, often imply temporary needs for housing; Greater needs than in the past, where mobility was less relevant, both because work was more stable in time and place, and because there were fewer opportunities for exchange and interaction (increased with globalization and computerization). "Contrary to what was once believed, in fact, much of Europe is constantly travelled by people who for the most disparate reasons move over distances that are now short, now long" (Lanzani, 2007): mobility becomes one of the peculiar characteristics of contemporary society and is part of one of the aspects of a more general tendency towards precariousness.

Today's uncertainty and transience may concern different categories of users, from the self-employed with high incomes, to whom the residences generally respond, to the general city user, to the precarious low income worker: "the temporariness of living becomes in this sense an aspect of the widespread precarization of life" (Lanzani, 2007). This state of widespread precariousness affects for several reasons more directly the weak and average population groups and seems to be detected by the Social Housing, which the scientific literature sees more destined to rent rather than to the property (Pozzo, 2012).

Yet, when housing needs become temporary for very short periods or for uncertain periods where there is no security of being able to make a complete and relatively durable move, the normal solution of the rent does not seem to be enough. This new need for short-stay accommodation, in fact, cannot be satisfied by the "purely quantitative re-offering of 'normal' rented housing" (Rizzo, 2004), as it requires ad hoc solutions to manage the frequent turnover of users and housing models suitable for temporary use; on the contrary, it cannot be satisfied even through accommodation of a tourist-receptive type, since it is still a "need for home" and not hotels or tourist services.

In Italy today, this question is taken more into consideration, and we try to give it an answer thanks to the possibilities offered by the new ways of building social housing: Social Housing seems to have become an opportunity for experimentation of collective residences for temporary use, when the initiatives are aimed in particular "at those with temporary housing needs (workers on the move, students, temporary immigrants)" (Delera, 2009).

Some recent projects of Social Housing, in fact, transpose these needs, proposing temporary stay formulas as in buildings of tourist-receptive type, but offering calm fees and services, responding to a varied composition of population; These buildings, which in some cases are referred to as "experiments", can be defined as "Temporary Social Housing" (Delera 2009).

2.2.2.2. Socio-sanitary Structures

The demographic, social and family structure of Italy are all the focus of attention. These are not negative changes; you live longer, you get to old age in better health and you can live it in a complete way⁹⁰. International literature and modelling suggest the diffusion of

⁹⁰The process involves above all the highest age groups: in the period 2011-2051 is expected (Istat central hypothesis) an increase of 120.7% of the population aged between 80 and 89, 315.5% of 90-99 and 981.4% of the over centenaries. In absolute value, the over 80s will increase from 557,822 to 1,402,880 units, the over 100s from 2,515 to 27,198.

solutions to improve the quality of living, foster interaction with the external environment, ensure safety and good relations throughout the whole of old age. There are many possible applications. They range from the most up-to-date models of Social Housing, to services for independent life or for assisted life, from multifunctional centers to intergenerational and multi-service housing systems.

Many countries, especially European countries, have undertaken substantial reforms in this area, embracing the culture of the life cycle in different ways. This implies a substantial paradigm shift; improving the habitat before designing services, for example by adapting housing and social-health support to the person in his home, instead of forcing forced migration through structures designed for levels of increasing welfare intensity.

Most of the Italian housing stock is not suitable for the needs of people - of any age - with functional limitations. Even the most recent generation homes rarely have design solutions that take into account the aging of people and often have the disadvantage of being built in peripheral environments and poor services and sociality. The housing adaptation policies tested in many countries provide simple construction solutions that can improve usability even when functional limitations emerge. In other cases, the interventions concern the implementation of listening services, relational enrichment and monitoring of housing complexes with a greater concentration of elderly people.

A very cited example of good practice is that of the City of Barcelona, where viviendas dotacionales⁹¹ have spread in recent years. This is an extensive public housing program for the elderly and other population groups (e.g. students or young families). The project is governed by detailed public contracts; the building complex must be well located and not far from service locations (commercial activities, health services, public transport); the construction must provide adequate space, the different populations (elderly and young people) are welcomed in distinct but connected areas, in order to allow both mutual independence and opportunities for encounter and socialization. Once the building is completed, a new contract takes over between the municipality and a social cooperative, called to provide some basic services: a manager, an educator/ animator and a social worker. Ancillary services also promote socialization and the use of leisure time and offer the elderly a lot of security. This is an interesting evolution of the traditional interventions of Social Housing, which too often have given priority to the affordability of rentals. Similar interventions are also spreading in the residential sector; in many countries, operators in the sector are beginning to pay attention to new markets linked to ageing processes and to the active design of old age. Among the Lombard examples that move in the same direction, we can mention: BIRD in Brescia, realized by ALER, the Borgo Sostenibile project of Figino and that of the Frassoni Foundation of Lecco, both under construction with the support of the Fondazione Housing Sociale.

Reference models can be defined within two macro-groups:

The first group includes solutions or structures for independent living (Independent Living Facilities). It includes, among the most common models: protected housing, shared apartments, co-housing, *Cantous*, hotel houses, *Abbeyfield* services, *Logement*-

⁹¹ Cocco F., Pibiri R. (2011), Residenze sociali con servizi per anziani. Il modello della "vivienda dotacional" del Comune di Barcellona.

Foyer, Maison de Retrait, Maison Cangourou. These are normal houses equipped with adequate architectural devices and enriched with social concierge services or local coordination and other interventions of reduced intensity, even if only on request (housekeeping, groceries, transport, socializing, assisted bathing). People can share common spaces and services, such as the kitchen and laundry, but are autonomous in managing their daily needs. Especially in Italian applications, they are mainly used by elderly people with social fragility or specific housing difficulties. The age of access is more often close to 70 years, the minimum functional limitations and more often limited to IADL functions⁹², the normally multi-year reception duration.

The second group comprises assisted living facilities or services (Assisted Living Facilities), often organised in a community form, However, the reception unit can still be a real apartment - as is more common in the USA or Scandinavian countries - or a room, more often single, large and with bathroom. Ancillary services are specifically aimed at supporting substantial reductions in autonomy and assistance - carried out by professional operators - is normally extended to 24 hours. In Italy, where the family structure is more solid, the stay is usually limited to a few months, generally guaranteeing the necessary support to the person or the family to overcome temporary critical issues of nursing work. The difference between these two macrocategories, especially in recent years, is not always so clear. Projects combining normal dwellings with more specific units for independent living or assisted living are becoming increasingly common. The most wellknown model is the american Continuing Care Retirement Community model, which offers the "younger elderly" quality housing solutions integrated by services - proximity, home, light or institutional residency in their various joints - Able to accompany people without requiring further changes of location and references. In the European interpretation of the model, greater attention is paid to the danger of creating "citadels for the elderly", isolated and self-referential⁹³, favouring rather the themes of integration and intergenerationality. In other words, if the traditional tendency was to separate services into units at different levels of care intensity, the more recent one aggregates them to better develop the possible synergies and connect them to community services. The most valued separation line, however, remains that between services with a strong institutional footprint - large dimensions, standardization of care processes, greater health intensity and community services: small, widespread, adaptable and customizable.

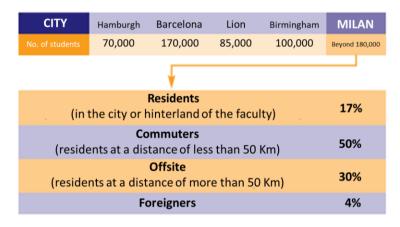
2.2.2.3. University housing

As can be seen for the nominations of cities for major events such as the Olympics, universal exhibitions and large fairs, there is a global competition involving the most important cities on the planet. The challenge is represented by the ability of the cities themselves to attract more and more people, thanks to the attractive poles of excellence

⁹² The IADL (Instrumental activities daily living) evaluation scale is a tool for evaluating the degrees of autonomy in a patient's instrumental activities. It was conceived in 1969 by Lawton and Brody, and is used especially in geriatric situations.

⁹³ OECD (2003), Ageing, Housing and Urban Development. OECD publishing, Paris.

that they have the opportunity to offer. Within the global context, increasingly linked to the knowledge economy, competitiveness among cities at the international level also depends on the ability of cities to attract a population of excellence: university students. The presence of an effective reception system translates into a greater enhancement of the poles that the city can accommodate⁹⁴ and in the promotion of the image of the city, through the creation of a virtuous process involving research, human capital, business, the attraction of capital from abroad. To understand the "weight" of the population of university students on the cities, the following table shows some indicative values, referring to the main European university cities:



Picture n.7: Categories of students in different European cities - Guffanti, 2011

University students represent a seemingly homogeneous population: three different types can be identified: "resident" students residing in the city where the university faculty is based; "commuting" students, those who take up to ninety minutes to reach the university and face the hardships of the metropolis without being able to enjoy the advantages that the residence, even the temporary one, can offer as access to the cultural offer, public premises, entertainment spaces; and finally the "offsite" students, who live in the city seat of the university faculty attended limited to the period of study and often return to their home town. They represent an increasingly significant percentage of the student population, thanks to the increasing mobility of students within the same nation and the growing number of foreign students. This category is also the one that must support the greatest commitment both in economic terms, both from an organizational and logistical point of view, as it involves the search for accommodation, the first orientation in the new city and university, etc.

Among these types of students are precisely those out of office to represent the main application for university residence. These, in fact, constitute the main answer to their needs and in particular to:

 basic logistical and instrumental needs - having the availability of accommodation allows the student to easily attend university courses;

⁹⁴ In a survey prepared by the OECD (Organization for Economic Cooperation and development), the ability to stimulate international mobility is one of the main evaluation parameters of universities, defined both by the number of students enrolled and by the presence of services intended for them.

- needs for social and relational integration having a stable residence allows the student to establish social relationships and to interact with other students or residents who allow a more profitable integration with the territory and the activities established;
- educational and cultural needs having stable accommodation in a given city allows the student to enjoy the services and cultural excellence such as theaters, museums, libraries, events and cultural events offered by the city.

2.2.2.4. University housing and urban transformations

Universities and university housing can therefore be considered real promoters of territorial development. Thanks to their activities in the social and economic fabric of the city they are a factor of endogenous territorial development, that is a factor able to generate and feed the local economy by creating virtuous circuits. In fact, as has happened in some large Italian cities that have been the subject, since the '80s, of major interventions to recover/transform the urban fabric, due to the decommissioning of large manufacturing industries and the progressive replacement of urban functions (mainly through the implementation of Integrated Action Plans), university residences have often been located in urban areas through the enhancement, recovery or reuse of areas previously assigned to other functions. In the operations of functional replacement or new construction in the urban fabric, university residences have generated a more or less substantial turnover for the district or city in which they have been inserted. Just think of the residences born in the suburbs of the cities, as it happened for the headquarters of the Bicocca University of Milan built on the areas occupied by Pirelli rubber industries, or for cities that are now considered real university towns, for example Pavia, Urbino and Perugia.

Students, in addition to generating an economic spin-off for small neighbourhood traders, contribute to the development and growth of activities and services that arise on their specific needs: mobility (demand for public transport), cultural activities (theaters, museums, libraries, exhibitions, events), recreation (public green, cinema, night clubs, etc.). Moreover, the presence of research centres and qualified graduates in the territory encourages the establishment of companies, especially multinationals, which can thus enjoy the human capital generated by universities, giving rise in turn to universityexchange processes a profitable enterprise for the territory. Last but not least, at the neighbourhood level, students play a role as unconscious as it is important to control public spaces; in fact, because of their presence in the surrounding areas of university residences at all hours of the day (and sometimes at night) give residents greater security. Understanding the potential of transformations generated by university housing interventions is fundamental for professionals in order to support from a design and governance point of view of the building process real estate operators, whether they are public or private. The residences for students, due to the construction and performance characteristics intrinsic represent a type of property destined to develop in the short to medium term and therefore require a thorough knowledge, in particular for the following reasons:

 the high number of university students and the growing demand for residences, in the face of a far unsatisfactory supply;

- a new regulatory framework that affirms the possibility for universities to legally transform themselves into private law foundations and therefore the possibility to move with greater agility and autonomy also in the planning of the building interventions to be implemented;
- new instruments offered by the financial market (such as real estate funds) and regional and municipal policies that are being tested by some municipalities, have opened up new development opportunities, able to attract investors from abroad;
- the technical skills required by the market to satisfy not only end users, but all operators who in various ways contribute to the development process of intervention of university housing (investors, developers, builders, designers, managers and maintainers) in relation to the typological and technological peculiarities required by the end users.

2.2.2.5. Temporary structures

Today one of the distinctive features of contemporary society is a widespread tendency to precariousness and indeterminateness, which, not necessarily considered in their negative sense, They generally translate into greater mobility of individuals than in the past, with distances now short and long hours. Mobility due both to the increase of the available options and to the multiplication of the situations of transience; this predisposition, by choice or necessity, becomes synonymous with temporary living. And so it is that "the temporary house seems to constitute the type of building typical of the post-modern era, as it represents the most direct response to the ways of living of the contemporary nomad, an individual forced to continue moving for work, study, etc." 95. The "temporary home" is, however, a term with many facets, which are linked in part to the motivations behind the need: housing in response to emergency situations due to natural disasters, housing projects are carried out on the occasion of massive redevelopment of existing buildings, planned conversions of housing to other uses represent different and very particular areas of demand for temporary housing, These results in generally different answers, where the temporary meaning may concern the temporariness of the function, the artifact or the location. In this context, short stay living (that is, living for short periods) then becomes one of the many forms of short stay living⁹⁶, where temporariness is expressed in the frequent exchange of users and therefore in the temporary use of a permanent artifact; an area that responds to a new housing emergency, linked to a demand for housing quickly available and low cost, which seems to go more in the direction of a basic change of society, rather than just a "transitional emergency".

The Social Housing seems to have become an opportunity for experimentation of collective residences for temporary use, when the initiatives are addressed in particular⁹⁷

⁹⁵ Rizzo A. (2004), Abitare nella città moderna. La casa temporanea per studenti, Edizione Grafill, Palermo, pag. 23.

⁹⁶ Mostacci R. (2003), I nuovi bisogni e le soluzioni possibili, in Bogoni B. (a cura di), Altre abitazioni. Case per l'altra metà di noi, Tre Lune Edizioni, Mantova, p. 17

⁹⁷ The Social Housing initiatives are also aimed at middle-low income families without the intention of accessing the property and those who are not in a position to take out a mortgage to buy the house (Delera, 2009).

"to those who have temporary housing needs (visiting workers, students, immigrants who intend to return to their country)" ⁹⁸. Some recent projects of Social Housing, in fact, transpose these needs, proposing temporary stay formulas as in buildings of tourist-receptive type, but offering calm fees and services, responding to a varied composition of population; Such buildings, which the literature notes in some cases as "experimentations", can be called Temporary Social Housing.

⁹⁸ Excerpt from an interview with Sergio Urbani by Anna Delera, former managing director of Fondazione Housing Sociale, co-director of Cdp Investimenti Sgr in 2012. In Delera A., a cura di (2009), *Ri-pensare l'abitare. Politiche, progetti e tecnologie verso l'housing sociale*, Hoepli, p. 69.

2.3. THE PNRR. BETWEEN URBAN REGENERATION AND AFFORDABLE HOUSING

The Piano Nazionale di Ripresa e Resilienza (PNRR, National Recovery and Resilience Plan), within Mission 5 "Inclusion and Cohesion", provides, among other things, investments in urban regeneration projects, aimed at reducing situations of marginalisation and social degradation aimed at contributing to municipalities for investment in urban regeneration, in order to reduce situations of social exclusion and degradation and to improve the quality of urban decorum as well as the social and environmental context.

It is interesting to note that in this context, Social Housing is considered a type of intervention of strong social and economic value that can support policies of inclusion and improvement of conditions of social hardship.

Interventions of construction or renovation of existing buildings (public or private), intended for people with serious disabilities or elderly people who are not self-sufficient, are accompanied by other regeneration interventions with important repercussions on the regeneration of the most vulnerable urban tissues (suburbs, internal areas of the country).

The inclusion policies, primarily dedicated to the population groups living in conditions of social marginality, are also supported by measures to strengthen public housing, temporary housing (such as temporary accommodation facilities for homeless or economically distressed individuals) and Social Housing designed to offer reduced-rent housing, for example, to students or single-income families.

In the definition and execution of projects of social and territorial value of this mission are the protagonists of municipalities and in particular metropolitan areas, where the conditions of social hardship and vulnerability are more widespread. The involvement of local authorities is essential to ensure that the new services provided are also fully financed, which will have to be strengthened as appropriate during the State Budget programming of the coming years.

The public action will be able to use the contribution of the Third Sector in order to exploit the synergies between social enterprise, volunteering and administration by allowing a more penetrating reading of the hardships and needs in order to meet the new margins and provide more innovative services, in a mutual exchange of skills and experiences that will enrich both the PA and the Third Sector.

For the support of housing policies at lower (sustainable) prices than those of the market (affordable housing) is expected investment in target funds that propose the project of Social Housing.

Particular attention is paid to urban regeneration interventions, also as a tool to support the inclusion especially of young people, and the recovery of social and environmental degradation, through, in particular, the construction of new public housing structures and the re-functionalization of existing public areas and buildings. Finally, it is recognized a strategic role in the rehabilitation of sports facilities and integrated urban design, aimed at revitalizing large urban areas degraded national territory. Specifically, the PNRR, Mission 5 C2.2 "Urban Regeneration and Social Housing" includes the following Investments:

- Investment 2.1: Investment in urban regeneration projects, aimed at reducing situations of social exclusion and degradation: The investment is aimed at providing municipalities (with a population of more than 15,000 inhabitants) with grants for investment in urban regeneration, in order to reduce situations of social exclusion and degradation and to improve the quality of urban decorum as well as the social and environmental context. The investment may cover different types of actions, such as: maintenance for re-use and re-functionalisation of public areas and existing public building structures for public interest purposes, including the demolition of abusive works carried out by private individuals in the absence or total non-conformity of the building permit and the arrangement of the relevant areas; improvement of the quality of urban decorum and of the social and environmental fabric, including through the renovation of public buildings, with particular reference to the development of social and cultural, educational and educational services, or the promotion of cultural and sports activities; sustainable mobility interventions.
- Investment 2.2: Integrated Urban Plans The Integrated Urban Plans project is dedicated to the suburbs of Metropolitan Cities and involves participatory urban planning, with the aim of transforming vulnerable territories into smart and sustainable cities, limiting the consumption of building land. In metropolitan areas it will be possible to achieve planning synergies between the "main" municipality and the smaller neighbouring municipalities with the aim of repairing urban and extraurban fabric, filling infrastructure and mobility deficits. The primary objective is to recover existing urban spaces and areas in order to improve the quality of life by promoting social and entrepreneurial participation processes. The projects will have to give back to the communities an identity through the promotion of social, cultural and economic activities with particular attention to the environmental aspects. The investment involves the preparation of participatory urban regeneration programs, aimed at the improvement of large degraded urban areas, regeneration, economic revitalization, with particular attention to the creation of new services to people and to improving the accessibility and intermodality of infrastructure, also with a view to transforming vulnerable metropolitan areas into efficient, sustainable and productive areas by increasing, where possible, their value. The Integrated Urban Plans intervention provides a specific financial envelope in favour of a Thematic Fund dedicated to the field of urban regeneration. The Thematic Fund aims, in particular, to attract private funding in urban regeneration projects, to promote the development and implementation of long-term urban investments, to develop new and alternative lending channels, and innovative models for urban regeneration projects, combining PNRR resources with private resources and accelerating investment in urban regeneration, also contributing to the objectives of the green transition by promoting sustainable urban regeneration.
- Investment 2.3: Innovative programme for the quality of living The objective of the investment is the construction of new public residential buildings, to reduce housing difficulties, with particular reference to the existing public heritage, and the

regeneration of degraded areas, focusing mainly on green innovation and sustainability. The investment is divided into two lines of interventions, to be carried out without consumption of new soil: redevelopment and increase of social housing, renovation and regeneration of urban quality, improvement of accessibility and safety, Mitigation of housing shortage and increase in environmental quality, use of innovative models and tools for management, inclusion and urban well-being; interventions on public housing with a high strategic impact on the national territory. The selection of funding proposals will be made through indicators aimed at assessing the environmental, social, cultural, urban-territorial, economic-financial and technological-procedural impact of projects⁹⁹.

In 2022 the Ministry of the Interior issued two separate decrees for the allocation of resources dedicated to urban regeneration projects. The decree of April 4 provided for the sliding of the list of the call for proposals for the year 2021, going to finance also those projects that were eligible results but had not received funds for exhaustion of resources. The decree of 19 October instead assigned the resources for the year 2022. Considering all the funds allocated in 2022 - both those of the last call of 2022 and those derived from the sliding of the list of 2021 - the total amount is about 1.3 billion euros. The highest figure went to Lombardy. The municipalities of this area, in fact, have been assigned a total of over 300 million euros (all due to the sliding of the list of the 2021 call). Veneto (273) and Campania (164) follow.

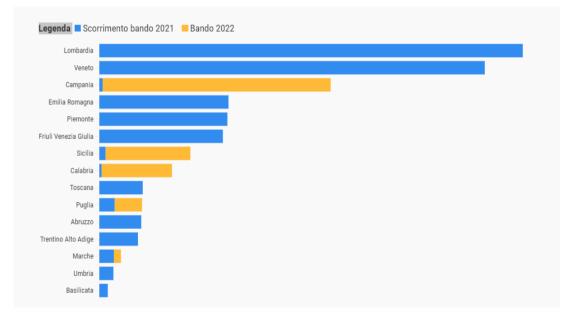


Chart n.9: Funds for urban regeneration allocated in 2022 by region – Openpolis processing on Ministero dell'Interno data - last update: Friday, October 28, 2022

⁹⁹ Piano Nazionale di Ripresa e Resilienza, in https://www.governo.it/sites/governo.it/files/PNRR.pdf

Chapter III - Methodology, selection and mapping of the case studies

3.1 SELECTION AND MAPPING OF THE CASE STUDIES

"Redefining and increasing the thickness of the city, the common scenario of this national research itinerary, means abandoning the expansive idea of the contemporary city and returning to what historically constituted urban practice, especially in Europe, of building in the built, densifying or replacing artifacts or neighborhoods, recycling parts or materials, thus transforming and not expanding the existing urban structure" (Reale, 2012).

The densification process that cities are facing and the intensive use of urban land must respond to the new living needs that are changing economically, technologically and socially. Usually we try to find a solution to this process through three different approaches: increase the density of residential areas, recover abandoned industrial infrastructure, provide for grafts in the compact city (Reale, 2012).

Widespread city and social isolation are the contemporary enemies of urban centers, but especially of historical centers, which are abandoned by the inhabitants in favor of low-density residential agglomerations and which, therefore, occupy a large area of territory¹⁰⁰. There are several cases in which Social Housing becomes a tool to revitalize the urban center both from the point of view of social and functional mix inserting housing necessary to improve the conditions of the community that lives there and the urban itself.

Although it is still taking place slowly, in Italy there are some realities in which Social Housing is proposed to revitalize cities and historic centers.

This thesis analyzes the cases of urban regeneration within the boundaries of the city of Milan that involve a Social Housing intervention.

Milan, in fact, thanks to the most ethical real estate funds and a policy of the City that for some years now has espoused the most socially accessible and economically sustainable real estate philosophy, At the beginning of the third millennium, the first social housing complexes arose that represent a new way of living by encouraging the creation of fair-eco-sustainable communities of residents (Giudici, 2022).

The beginning of this process can perhaps be identified in the debate that broke the silence on the theme of the popular and social home in 2000^{101} . The Milanese curia, by the will

¹⁰⁰ Reale L., (2012). "L'housing sociale strumento di rigenerazione della città. Densificazioni urbane e tecniche di infill", in *Hortus, rivista di architettura*.

¹⁰¹ From the mid-seventies to the end of the nineties, Milan drastically reduced the stock present in various ways on the rental market, from 51% to 34%. With a few years of lag, the population has gone from 1.8 million inhabitants to 1.3 million with a loss of about five hundred thousand people, mostly young people and newly formed families disappeared in the infinite city of the Lombard provinces. By reducing rent, the city has emptied and perhaps weakened. At the beginning of the 2000s, after an attempt to use the last public areas not built to build some new popular settlements - are the interventions of Abitare in Milan 1 and 2, thanks to which in the city will be built just over a thousand housing, - the reflection resumes trying to question the question of rent.

of Cardinal Martini and Fondazione Cariplo¹⁰², launched a challenge to the city and Cariplo took a path that gave rise to the first ethical fund real estate and the first foundation dedicated to Social Housing – Fondazione Housing Sociale.

In 2004, Fondazione Cariplo decided to systematically tackle the Social Housing Project and, with the participation and support of the Lombardy Region and ANCI Lombardy, established a foundation of purpose, Fondazione Social Housing, ("FHS") or the "Foundation", with the mission to develop the Social Housing Project and promote the development and strengthening of the sector according to the values of Fondazione Cariplo.

The Fondo Immobiliare di Lombardia Comparto Uno (FIL1, Real Estate Fund of Lombardy Compartment One), the first ethical fund for social housing promoted by Fondazione Cariplo and Regione Lombardia is managed by Redo SGR SpA - benefit company, and includes among its shareholders important institutions such as the Investment Fund for Housing managed by CDP Investimenti Sgr and subscribed by Cassa Depositi e Prestiti for \notin 1 billion, the same Fondazione Cariplo and Regione Lombardia, Intesa Sanpaolo, Unicredit, Cassa Italiana Previdenza e Assistenza Geometri, Generali, Banco BPM, Aler Milano and TIM. FIL is a member of the Housing Sociale Foundation, which acts as Advisor in numerous FIL real estate projects, the first real estate fund manager committed to creating living spaces that are both quality and economically sustainable for people: affordable housing¹⁰³.

Redo, the company that has carried out 80 percent of the interventions of Social Housing in Milan through the Real Estate Fund of Lombardy, has created 8,500 apartments throughout the Region. After the first experiments ("Villaggio Barona" and "Cenni di Cambiamento"), today Social Housing is more structured and looks to the future of the city from which young people have been expelled to more peripheral areas. The spread of Social Housing represents a possibility of a partial reduction of the gap between the prohibitive center for the middle and lower middle class and the peripheral areas to become an alternative to the purely speculative approach of the real estate market.

In recent years, an interesting arena of subjects has been established (foundations, third sector, associations) that have developed over the years skills, skills and customs to intervene in an innovative way on the subject. The Territorial Government Plan has opened up useful tools for a possible role of private operators in the production of new affordable rental homes. In Milan, a new multi-factorial system, inspired by the principles of horizontal subsidiarity, is being defined in a unique way at the national level, which redirects the methods of production and maintenance of the heritage¹⁰⁴.

The mapping and analysis presented in this thesis, shows a selection of the most recent urban regeneration projects with social housing interventions launched in Milan. The

¹⁰² Fondazione Cariplo is a foundation of banking origin created in December 1991 that carries out philanthropic activities in the fields of environment, art and culture, research and personal services.
¹⁰³ https://redosgr.it/

¹⁰⁴ Report Milano n. 6 (2021). La casa popolare, l'edilizia residenziale pubblica del Comune di Milano. AIM Associazione Interessi Metropolitani.

objective of making more explicit the role of Social Housing in reactivating the urban fabric and highlighting its peculiarities.

The thesis mapped and analyzed nine Housing Sociale projects, in detail:

- Social Village Cascina Merlata former EXPO Village 2015 area;
- Unione 0 former Falck area, Sesto San Giovanni (MI)**;
- Merezzate Rogoredo Santa Giulia district, Milan;
- Green Between Crescenzago district, Milan;
- L'Innesto former railway yard of Milano Greco-Breda, Milan;
- Cenni di Cambiamento Milan West;
- Sarpi-Bramante Via Paolo Sarpi, Milan;
- Zoia Quarto Cagnino area, Milan;
- 5Square Vigentino district, Milan.

** The "Unione 0" project is not precisely in the territory of the Municipality of Milan but in that of the Municipality of Sesto San Giovanni, bordering Milan, to which is directly connected both by the presence of roads and efficient public transport services (train, public transport and subway, ring road), both from the point of view of the seamless urbanization between the two municipalities.

These projects were selected on the basis of the following criteria:

- scale and scale of urban regeneration: scale of the district;
- proposed functional mix;
- proposed social mix;
- the presence of a public-private (including social) partnership;
- the use of materials and construction solutions with low environmental impact.
- the presence of innovative patterns of production, consumption and lifestyles through community activation in the circular economy and neighbourhood trade.

3.2. THE DEFINITION OF THE PROJECT MAPPING CHART

The work consists of a research on the theme of urban regeneration and how social housing is linked to it by analyzing several case studies whose main data are collected in a chart, which is constituted as a real identity document of the project, in order to be able to fully understand it from different points of view and easily compare it with other similar projects.

This chart allows to analyze the project at two different scales. The urban scale or the project and/or the intervention of urban regeneration; subsequently the project and/or the intervention of Social Housing. In this way it will be possible to understand not only the intervention of Social Housing itself, but also the reality in which it is located.

3.2.1. THE URBAN REGENERATION PROJECTS MAPPING AND **ANALYSIS CHART**

The data sheet entries for the mapping and analysis can be traced back to:

- Project identification data: containing data on the name and description of the project, _ location, size of the intervention area, total investment and land reclamation costs;
- Territorial framework: containing the main information relating to the context within _ which the project is inserted, such as pre-existing services in the area and information on public transport connections; as well as real estate market data on property prices in the area;
- Stakeholders and partners: which contains information on the parties involved in the process and their roles, in particular designers, developers, landowners, financiers, consultants:
- Timeline: in which the main information on the progress of the development and/or the timing necessary for the development, namely the date of the initial contract, the acquisition of the land, is reported, the start and end of the works and their current status:

_	Functional mix, in which information is given in terms of intended uses carried out or
	planned for different public and private functions.

URBAN RENOVATION			
Project	Project name	Name of the project	
identification	Localization	Where the project is collocated	
data	Intervention area	Total gross size of the project	
	Amount of investment	Public and/or private money invested in the project	
	Land reclamation costs	Costs of quenching and tempering of the land	
	Project description	A brief description of the project and its characteristics	
Territorial framework	Accessibility	Analysis of the connections and infrastructures to reach the project area	
	Pre-existing services	Pre-existing services in the area	
	Real estate market	Data concerning the real estate prices of the project area according to OMI (Agenzia delle Entrate database)	
Stakeholders and partners	Masterplan architects	Data about the various actors involved in the project	
una parmers	Developer		
	Land owner		
	Others		
Timeline	Public tender	Date of the awarding of the tender	
	Land aquisition date and its acquisition cost	Date of the acquisition of the site and the relative cost of acquisition	
	Start date	Beginning of the works	
	Finish date	Ending of the works	
	Current status	Clarification about the project having been finished already or not	
Functional mix	Public functional mix	Intended public uses integrated in the project	
	Private functional mix	Intended private uses integrated in the project	

Picture n.8 - Urban regeneration projects mapping and analysis chart format

3.2.2. THE SOCIAL HOUSING PROJECTS MAPPING AND ANALYSIS CHART

The data sheet entries for mapping and analysis can be traced back to:

- Project identification data: containing data on the name and description of the project, location, size of the area of intervention and total investment;
- Territorial framework: containing the main information relating to the context within which the project is inserted, such as pre-existing services in the area and information on public transport connections; as well as real estate market data on property prices in the area;
- Stakeholders and partners: which contains information on the parties involved in the process and their roles, in particular designers, social managers, developers, landowners, financiers, consultants;
- Timeline: showing the main information on the progress of the development and/or timing of the development, specifically the date of the initial contract, the acquisition of the land, the start and end of the works and their current status;
- Social mix and fuctional mix, containing information on the area dedicated to the various functions of the project (residential, non-residential, green areas and common areas), the services offered and specific data on housing, including the type of rent, the square footage and the purchase and rental prices;
- Social managers, in which information about the social manager and the functions performed, including those of Property and Facility Management, are reported.

	SOC	IAL HOUSING PROJECT		SOURCES
Project	Project name	Name of the project		
identification	Localization	Where the project is colloc		
data	Intervention area	Total gross size of the proje		
	Amount of investment Project description	Public and/or private mone A brief description of the p		
	•	1 1	5	
Territorial framework	Accessibility	Analysis of the connections and infrastructures to reach the project area		
	Pre-existing services	Pre-existing services in the		
	Real estate market	Data concerning the real es to OMI (Agenzia delle Entr		
Stakeholders	Developer	Data about the various acto		
and partners	Land owner			
	Social manager			
	Others			
Timeline	Public tender	Date of the awarding of the		
	Land aquisition date	Date of the acquisition of the	ne site	
	Start date	Beginning of the works		
	Finish date Current status	Ending of the works	act having been finished already or rat	
Social mix	Total residential area	Surface dedicated to differe	ect having been finished already or not	
social mix and	(sqm)	Surrace dedicated to differe	ant runctions	
functional	Total non residential area			
mix	(sqm)			
	Green area surface (sqm)			
	Common area surface (sqm)			
	Type of non residential spaces	Description of the fuctions		
	Services	Complementary services of	fered by the project	
	Free housing	Target group	Social group with priority to be assigned to the project	
		Total squared meters	Dedicated surface	
		Type of accomodation	Typologies of the residential units	
		Purchase values	Selling agreements	
		(Euro/sqm)		
		Lease values (Euro/sqm)		
	Ordinary conventioned housing	Target group	Social group with priority to be assigned to the project	
		Total squared meters	Dedicated surface	
		Type of accomodation	Typologies of the residential units	
		Purchase values (Euro/sqm)	Selling agreements	
		Lease values (Euro/sqm)		
	HS - Lett. A - Agevolata	Target group	Social group with priority to be assigned to the project	
		Total squared meters	Dedicated surface	
		Type of accomodation	Typologies of the residential units	
		Purchase values (Euro/sqm)	Selling agreements	
		Lease values (Euro/sqm)		
	HS - Lett. B - Canone moderato	Target group	Social group with priority to be assigned to the project	
		Total squared meters	Dedicated surface	
		Type of accomodation	Typologies of the residential units	
		Purchase values	Selling agreements	
		(Euro/sqm)		
		Lease values (Euro/sqm)		
	HS - Lett. C - Canone sociale	Target group	Social group with priority to be assigned to the project	
		Total squared meters	Dedicated surface	
		Type of accomodation	Typologies of the residential units	

Fig. n.9 - Social Housing projects mapping and analysis chart format

3.3. THE MAPPING GLOSSARY

The mapping and analysis work carried out and reported in this thesis represents the start of a systematic - and future - research and mapping of urban regeneration and social housing projects. The format of the cards allows other contexts to be used, becoming a functional tool for mapping and analysis on a national and international scale.

In order to allow the compilation and at the same time to give a clear definition of the analysis entries, a glossary has been created.

The following glossary is intended to provide an overview of current terminology in the field of real estate management; it is intended as a selection - and not as an exhaustive list of the wide and complex variety of terms currently used in the sector - which supports the parallelism between the current use of the term and its declination in the management of Social Housing interventions.

The sources have been selected in the following order: authoritative sources, primary sources and secondary sources and are divided into national and Anglo-Saxon references. The primary sources include specialized texts, scientific articles and reports written by authors and experts with recognized scientific reliability and experience in the field, in particular the "Glossario del Real Estate Management" contained in the book "Change Living Cooperating. The Cooperative Social Manager social infrastructure of social housing and urban welfare" (2018) authors R. Zaccaria, G. Ferri and A.S. Pavesi.

ASSET MANAGEMENT

(tratto da R. Zaccaria, G. Ferri and A.S. Pavesi (2018), "Cambiare l'abitare Cooperando. Il Gestore Sociale Cooperativo infrastruttura sociale dell'housing sociale e del welfare urbano")

Asset Management is defined as a set of strategic actions that align the composition and characteristics of real estate assets with the objectives of the core business/corporate mission (RICS, 2009). The shares can be purchase, securitization, disposal, realization, transformations of use, requalification, management and valorization of real estate (Curcio and Talamo, 2013).

ASSET MANAGEMENT COMPANY (SOCIETÀ DI GESTIONE DEL RISPARMIO, SGR)

(from art. 2 D.lgs 274/2003)

The Asset Management Company is the joint stock company with registered office and general management in Italy, authorized to provide services of collective management of savings (art. 2 D.lgs 274/2003); they are empowered to provide investment advice and to manage collective and individual assets. Their activity is regulated by Banca d'Italia.

COMMON AREA

(from PGT Comune di Milano)

Rooms for common use, such as gatehouse or boiler room and electric meters. It is also considered the space on which the condominium was built, including areas used by all including stairs, corridors, roof etc.

COMMUNITY MANAGEMENT

(from R. Zaccaria, G. Ferri and A.S. Pavesi (2018), "Cambiare l'abitare Cooperando. Il Gestore Sociale Cooperativo infrastruttura sociale dell'housing sociale e del welfare urbano")

Community Management means the management of the set of activities of an administrative and technical nature with the aim of encouraging and activating the community, in which fall: the definition of the criteria for access to the project; the selection of tenants; the definition of leases; the allocation of housing and the conclusion of contracts; the accompaniment of residents to the drafting of the regulation of condominium and community (Ferri, 2016).

DEVELOPER

(from https://it.economy-pedia.com/)

Person, natural or legal, public or private, who, individually or collectively, decides, promotes, programs and finances, with own or others' resources, construction works for himself or for its subsequent transfer, delivery or entrustment to third parties in any capacity (such as rent). It can be any person or company that designs and finances a construction work, for which it must be the owner or have rights to the land or the place on which it will be built. The promoter must delegate the project and provide the designer (in charge of the preparation of the project) with all the necessary information, as well as authorize any changes to the work and obtain essential licenses and authorizations.

EDILIZIA AGEVOLATA - SUBSIDIZED HOUSING

(from Legge 457/78 e Legge 179/92)

The purpose of subsidised housing is to build dwellings for the first time built by private builders with state and regional funding on particularly favourable terms. These contributions can have a dual nature: capital or interest for the reduction of the interest rate on bank loans.

Alloggi a canone moderato – Moderate rent housing

Real estate units whose rent is equal to the market rent reduced by 30%;

Alloggi a canone sociale – Social rent housing

Units for rent for medium/long term and rentals adapted to the economic capacity of the most disadvantaged households. It will be up to the Regions, in collaboration with the regional anci, to define the rent of social housing in relation to the different economic capacities of those entitled, the composition of the household and the characteristics of the accommodation; lay down the requirements for access to ownership facilities; lay down detailed rules and criteria for determining the selling price.

EDILIZIA ORDINARIA CONVENZIONATA – ORDINARY CONVENTIONED HOUSING

(from Comune di Milano – p.g. 475948 del 22.06.2009 proposta di deliberazione del consiglio comunale "criteri ed indirizzi per la disciplina degli accordi convenzionali nell'ambito degli interventi di edilizia convenzionata (ordinaria ed agevolata), con particolare riferimento ai prezzi di vendita, ai canoni di locazione ed ai requisiti soggettivi per l'accesso all'edilizia residenziale convenzionata") Affordable real estate units for low income families. In exchange for the support of the Municipality, the builder undertakes to sell the property at favorable prices.

ENVIRONMENTAL EXPERT

(from https://www.cittadeimestieri.it/)

The expert in environmental management and recovery of the territory is the professional figure who is responsible for designing and managing conservation, enhancement and restoration of environmental resources, aimed at safeguarding the territory, optimisation and protection of water and agroforestry resources, energy saving and the adoption of renewable energy systems.

FACILITY MANAGEMENT

(from Curcio S., Talamo C. (2013), "Glossario del Facility Management", EdiCom, Milano)

Facility Management means the integrated management of support services for the operation, use and enhancement of urban real estate (UNI 11447:2012). Integration of processes within an organization to maintain and develop agreed services that support and improve the effectiveness of primary activities. (UNI EN 15221-1:2007) (Curcio and Talamo, 2013).

In the corporate field, Facility Management means the practice of coordinating the workplace/ workspace with the organization of people and their multiple activities: it integrates principles of administration, architecture, psychology, engineering and economics. (IFMA; Rondeau et. al., 1995).

Facility Management is the management, the physical structure of the building and its systems/ equipment to optimize the link between each type of activity-management process and the final product: the functionality of the building (Park, 1998).

GREEN AREA SURFACE

(from PGT Comune di Milano)

Area intended, in the town planning, to park or garden.

INTEGRATED FUNDS SYSTEM

(from DL 112/08, DPCM 16/7/2009 e DPCM 10/7/2012)

Integrated Funds System (Sistema Integrato di Fondi, SIF) is introduced by the National House Plan (DL 112/08, DPCM 16/7/2009 and DPCM 10/7/2012), with the aim of promoting and supporting the development of Private Social Housing (EPS), the so-called social housing, through resources and methods of the private real estate market.

SIF, at national level, is constituted by the Investment Fund for Living (FIA), whose reference investor and manager is Cassa Depositi e Prestiti Investimenti Sgr.

The FIA is set up as a fund of funds that invests in 30 local real estate funds, managed by 9 leading asset management companies (SGR), which have as their reference investor the FIA and as co-investors the local stakeholders of the territory (banking foundations, regions, provinces, municipalities, housing cooperatives and private developers).

LAND OWNER

(from https://it.economy-pedia.com/)

Natural or legal person, public or private, who owns the land on which a building project or work is carried out.

NON RESIDENTIAL AREA

(from PGT Comune di Milano)

Expressed in square meters, it is the area used for services and accessories, at the strict service of the residences, measured net of the walls, pillars, partitions, doors and windows.

PARTNER

(from "Glossario di progettazione europea", Prodos Accademy, 2018)

The organizations participating in the project of which the Lead Partner (LP) is the subject that presents the project and the partners those who are responsible for the implementation of certain activities. Each member of the partnership is obliged to carry out the project activities (and is responsible to the funding institution).

PROJECT MANAGER

(from Stefania Cerutti (2014) "Project Management - Tecniche e strumenti: fasi, obiettivi e approcci", Università degli Studi del Piemonte Orientale, Torino)

Responsible for starting, planning, executing, controlling and closing a project using Project Management techniques and methods. He acts as a mediator between clients and designers, offering advice to the first with the aim of defending the design idea of the second, and guides the project team towards the goal that the client intends to pursue, also taking into account the interests of investors and the costs, timing and quality of the project.

PROPERTY MANAGEMENT

(from Curcio S., Talamo C. (2013), "Glossario del Facility Management", EdiCom, Milano) Property Management means the management of the complex of services of a technicaladministrative-commercial nature aimed at achieving a "periodic income" and/or a "capital gain" from a real estate.

RESIDENTIAL AREA

(from https://www.treccani.it/vocabolario)

Square meters dedicated to the residential function, that is, intended exclusively for residential and residential homes, and therefore distinguished from those intended for completely different uses (industrial, commercial, hospital, office, etc.).

SOCIAL HOUSING

(from R. Zaccaria, G. Ferri and A.S. Pavesi (2018), "Cambiare l'abitare Cooperando. Il Gestore Sociale Cooperativo infrastruttura sociale dell'housing sociale e del welfare urbano")

Regulatory framework of reference

Article 11 of DL 112/08, DPCM 16/7/2009 and DPCM 10/7/2012 (published in Gazz. Uff. on 19/2/2013) introduce the fundamental contents of the National Housing Plan, significantly innovating the approach to financing social housing.

Within the six lines of action identified by the Plan (art. 1 c. 1 of the DPCM 16/7/2009), in fact, the possibility is provided for the use of closed real estate funds as a tool to finance the construction of social housing, as defined by the DM 22 April 2008. These real estate funds may be set up through the participation of public and private entities and may be divided into a "Integrated Funds System" (Sistema Integrato di Fondi, SIF), consisting of a "national fund" and a series of "local funds". In other words, private social housing interventions can be implemented and implemented on the territory through the development of local funds, in turn participated by the national fund. Currently, the national fund of SIF is the FIA managed by CDPI Sgr. It should be noted that IMS and, in this context, the activity of the National Fund, is only one of the lines of intervention provided for in the National Housing Plan. The real estate funds, if properly developed, will therefore allow to reach a part of the objectives of the National Plan, but they do not represent the only or the main instrument of implementation, nor the solution to the housing problem of the country as a whole.

Summary of the main legal provisions concerning private social housing D.L. 25 June 2008 art. 11 Piano Casa

It provides for the use of closed real estate funds as an implementing instrument of the Plan.

Identifies the disadvantaged social groups targeted by the provision of subsidised housing:

- Low-income households, whether or not single-parent or single-income households;
- Young couples on low incomes;
- Elderly people in disadvantaged social or economic conditions;
- Students away from home;
- Subjects subject to enforcement procedures;
- Other subjects in possession of the requirements of article 1 of the Law n. 9 of 2007;

• Legal immigrants with low income, who have been resident in the country for at least ten years or for at least five years in the same region.

DPCM 16 July 2009 art. 11 and DPCM 10 July 2012 (published in Gazz. Uff. on 19/2/2013) National Housing Plan

Defines the regulatory and operational framework of the National Funds within the Integrated Fund System

Real estate including, inter alia:

- Destination of investments to increase the supply of social housing;
- Objective performance and economic sustainability of projects;
- Criteria for the participation of national funds in local investments;

• Integration with local public policies.

D.M. 22 April 2008 - Definition of social accomodation

Social accomodations means houses and services for disadvantaged individuals and households who are unable to access free market housing. This definition includes housing made or recovered, by public and private operators, including the use of public subsidies and subsidies, intended for temporary lease for at least eight years to the agreed rents and also to the property at agreed prices (private social housing).

CDP Sgr investment criteria and procedures

The due diligence on the investment opportunities is carried out by CDPI Sgr, on the base of the procedure of which it is equipped.

Each decision on the investment transactions of the AIF is taken by CDPI Sgr on the basis of a detailed investigation that, verified the compatibility of the initiatives with the purpose of increasing the housing of the AIF and the returns expected by the Fund, focuses in particular on:

- Integration of initiatives with local housing policies;
- Local fund governance requirements;
- Validity of proposals for the management of buildings and social initiatives;
- Economic, financial, social, urban and environmental sustainability of projects.

In order to facilitate the proposers in the setting up of initiatives and the preparation of documentation, the criteria followed by CDPI Sgr to verify the compliance of the proposals received with the investment policies of the AIF are illustrated below.

The investment criteria concern the local fund, the property transaction and the promoter.

Criteria for the purpose, returns and governance of local real estate funds

• Compatibility of the investment strategy of the local fund with the investment objectives of the AIF. The audit focuses on the regulation of the local fund and in particular on the strategies, types and purposes of investments.

• Duration and method of disposal at maturity of the AIF's holding in the target fund.

• Minimum expected target fund yields of around 3% above inflation. The business plan provided by the proposer is verified by CDPI Sgr using its own business plan model.

• Presence of local fund governance rules that allow CDPI Sgr to monitor its activity through adequate representation in the target fund bodies.

• Consistency of the diversification and risk mitigation methods of the local fund with the Risk Management procedures of CDPI Sgr. The audits focus on risk mapping and the risk management system used by the local fund Asset Management Company. The risk assessment will take into account the diversification and plurality of the types of intervention envisaged by the project.

Criteria for the property transaction

• Economic and financial sustainability. The verification is based on the business plan, the annual investment, divestment and valuation plans, the historical and/or expected cash flows of the local fund, the sustainability of stress tests and pessimistic scenarios. In

addition, the level of management fees will be evaluated, their consistency with the social orientation of the initiatives.

• Significance of the size of interventions in relation to the MIT investment within the FIA. Assistance shall be eligible if it involves the construction of more subsidised housing than public intervention of equal value, by reference to the percentage of investment attributable to the State through the Ministry of Infrastructure and Transport, would have generated if carried out directly through payment of a contribution equal to 30% of the cost of construction or recovery of housing pursuant to Article 5, paragraph 2, of the National Housing Plan attached to the D.P.C.M. 16 July 2009. A further element of significance may be represented by the coexistence/ integration of different types of intervention in terms of housing (e.g. subsidized, subsidized, free) and use (e.g. services and other activities).

• Effectiveness of the project response strategy to local housing needs. The verification is based on the analysis of the housing market and local housing needs.

• Implementation of sustainable economic, social, environmental and energy interventions.

The verification covers: (i) the location of the project and the characteristics of the urban and social context of the area of intervention, also with reference to the presence of infrastructure, urbanization and services; (ii) the functional mix; (iii) housing types; (iv) building quality and the energy and environmental performance of buildings; (v) the urban and social integration of new interventions. In the evaluations, all things being equal, interventions that do not consume new territory (that are not, therefore, urban variants of agricultural soils) and high performance of safety, energy and environmental sustainability will be preferred.

• Coherence and integration of the operation with local public policies and possible involvement of several local communities, highlighted by coordination with regional and municipal programmes and funding for social housing, regeneration programmes or urban transformation, development of local infrastructure and plans for the development of public real estate. The checks

are focused on the analysis of any agreements or agreements with public or private local and urban planning tools, implementation plans, titles and administrative procedures of the same.

• Possible contribution of public (e.g. European, state, municipal) and private funds, provided that, with the same established conditions of technical-economic and administrative feasibility of the interventions, preference will be given to interventions characterised by a prevalence of private investment.

• Adoption of safeguards and guarantees to minimize the risk of construction and delayed implementation of real estate interventions. The audits concern the mapping of risks and the analysis of the planned controls.

Criteria concerning the developer

• Experience in the social housing sector of the subjects to whom the management of investments is delegated, in addition to the requirements of good repute and professionalism of the promoters and local SGR. The verifications concern the track

record of the promoters and the SGR in all the phases of the initiative: development, construction, management and disposal.

Overall, the activity of selection of investment opportunities carried out by CDPI Sgr is oriented to achieve an adequate territorial diversification of investments, such as to ensure the greater diffusion of the same on the national territory.

Criteria for the participation of the FIA

CDPI Sgr will be able to modulate the participation of the FIA in the initiatives incrementally, up to a maximum of 80%, as the presence of the following factors increases:

• importance of the share of investment in subsidised housing;

• significance of the component of long-term rented social housing;

• the existence of destinations related to the concept of housing service that characterizes social housing such as, first, students, but also temporary residences, assisted health homes, schools, spaces of aggregation, etc. ;

- re-use of existing buildings, redevelopment of disused areas and use of urbanised areas;
- stimulation and promotion of the initiative by public actors;
- location of the intervention in the southern regions of Italy;

• ability of the initiative to fit into wider urban redevelopment contexts and to generate additional opportunities for intervention on the territory, in coordination with local housing policies.

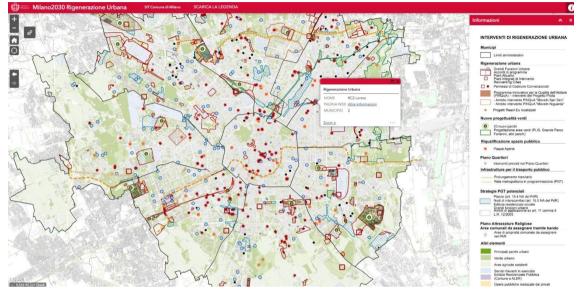
In addition, the increase in the participation of the FIA will have to be accompanied by increasing protections and rights recognised by the FIA and an increase in the examination of conflicts of interest.

SOCIAL MANAGER

(from Del Gatto M. L., Pavesi A. S., Ferri G. (2012), "Il gestore sociale quale garante della sostenibilità negli interventi di Housing Sociale")

Social Manager means the entity capable of integrating and managing all the activities related to the management of the real estate assets as well as the management of the established community and the relationships between the people living there. In parallel with the Property and Facility Management activities aimed at preserving the real estate value of the building, the social manager is therefore characterized by the centrality reserved to the inquilinato beneficiary of the services.

Chapter IV - Urban regeneration projects: experiences and projects of the Milanese context



4.1. THE ATLAS OF URBAN REGENERATION OF MILAN

Picture n.10: Screenshot of the Atlas of Urban Regeneration of Milan https://geoportale.comune.milano.it/, 2022

An instrument of great importance for the research object of this thesis is undoubtedly the Atlas of Urban Regeneration of Milan, available on the website of the City of Milan¹⁰⁵.

The Atlas is a map that can be consulted online that gives an overview and periodically updated of the more than 100 urban regeneration projects in progress (over 5000 square meters of Territorial Area), the most relevant public and private interventions.

The Atlas provides, for each project, the essential information on the surface, the functions, the state of the process and, where available, a dedicated in-depth page.

The global regenerative process will lead Milan to have 10 million square meters of areas returned to citizens, including 3 million green and public space, as well as about 8 thousand new housing in Social Housing.

The major projects on the map are currently 145 and include: the Implementation Plans, the Integrated Action Plans, the Program Agreements, the interventions of the three editions of Reinventing Cities. Also reported are the Building Permits, the new Parks, the Innovative Programs for the Quality of Living (PINQUA), some interventions of the Plan Neighborhoods, including those for open squares, the React-EU Projects, the active Calls for Proposals and the disused building stock, as well as some strategic forecasts of the

¹⁰⁵ Comune di Milano - Atlante della Rigenerazione Urbana - https://www.comune.milano.it/aree-tematiche/urbanistica-ed-edilizia/atlante.

Territorial Government Plan (Great Urban Functions, Nodes and Squares) and the Cascine valorization projects¹⁰⁶.

4.2. MILAN REAL ESTATE MARKET

In the last quarter of a century the Milanese capital has experienced profound transformations that have redesigned its urban, productive and social geography¹⁰⁷. The alternating urban policies have been characterized by rhetoric linked to "modernization" and based on the themes of urban competition, infrastructure development, real estate development, the attraction of creative classes and foreign investors, the conquest of rare functions and specializations, the redesign of the urban landscape and the development of recreational and tourist activities. The results in terms of dynamism have been evident¹⁰⁸: a strong attractiveness in terms of services and the labour market at a national level and not only; a real building boom, with several large real estate investments¹⁰⁹; vast urban conversion and regeneration operations; realization of mega-events (Expo 2015) and increase in tourist flows. To further overheat the real estate market and to act on the housing pressure that weighs on Milan, the rapid growth of urban tourism¹¹⁰, driven by the Universal Exhibition of 2015 and the tourism of events. Other important urban changes are already in the pipeline and will find further impetus from the next major events, first of all the Olympic and Paralympic Winter Games 2026 recently awarded to Milan and Cortina d'Ampezzo. All this has also meant that the economic-financial crisis has affected the economic bases of Milan more marginally than other large national urban centers¹¹¹. Property prices have been affected by this dynamism and are on average the most expensive in the country¹¹²; according to some authors, property values in rapid rise reflect precisely the positive externalities of urban environments from the point of view of opportunities for social cooperation¹¹³. In particular, the Milanese building boom of the 21st century took place with a "return to the city center", both residential and commercial properties¹¹⁴.

¹⁰⁶ Euromilano.net (6 luglio 2022), *Atlante di Milano, la mappa della rigenerazione urbana è online* - https://www.euromilano.net/news/atlante-di-milano-la-mappa-della-rigenerazione-urbana-e-online/

¹⁰⁷ Among the most recent contributions on this theme are mentioned, without any pretense of exhaustiveness, Balducci et al. 2017; Bolocan Goldstein (2017); Bovone e Ruggerone (2009); Bricocoli e Savoldi 2010; dell'Agnese e Anzoise 2011; Gavinelli 2016; Mugnano e Zajczyk 2008; Pasqui 2018.

¹⁰⁸ Matteo Bolocan Goldstein spoke of a "chaotic" dynamism in a city "reluctant towards any planned spatial order" (2017, 55). See also Lanzani 2011.

¹⁰⁹ According to the Real Estate Scenario Report, in 2017 Milan concentrated 49% of real estate investments in Italy.

¹¹⁰ Morazzoni M., De Ponti P., curated by (2011), *Milano Leisure. Realtà, immagine, immaginario*, Piccoli Giganti Edizioni, Legnano.

¹¹¹ Pogliani L., Torri R. (2018), "Milano attraverso la crisi: lo sviluppo immobiliare, l'abitabilità, le politiche", in Fregolent L. e Torri R., curated by (2018), *L'Italia senza casa. Bisogni emergenti e politiche per l'abitare*, FrancoAngeli, Milano, pp. 141-165.

¹¹² Aalbers M.B. (2011b), "Italy: Capital Switching in Milan", in Aalbers M.B. (2011a), *Place, Exclusion and Mortgage Markets*, John Wiley & Sons, London, pp. 103-122.

¹¹³ Aalbers M.B. (2011a), op. cit.

¹¹⁴ Bolocan Goldstein M. (2017), Geografie del Nord, Maggioli, Santarcangelo di Romagna (RN).

In the first decades of the twenty-first century the decline of the municipal population has first stopped and then showed a positive trend (table 2) and, although the historical center and the western area show negative values, some town halls record a turnaround even significant, in particular the northern area (table 3).

This return to inhabit the urban center, however, happened selectively, with an important number of interventions dedicated to the city that we could define "first class", that is, the creative one that produces significant added value, with the mobilization of discursive strategies inspired by globalized urbanism and based on the virtue of creativity, conviviality, internationality and hospitality in order to attract investment and consumers from around the world¹¹⁵: think, for example, the projects of CityLife, Garibaldi-Repubblica, Portello, or the enhancement of the Isola, Tortona and Nolo districts. In such a dynamic economic context, however, the repercussions of the economic crisis have not been lacking, not so much because of the increase in unemployment but in terms of job insecurity (especially for young people), of the increase in the cost of living¹¹⁶, of strong immigration and cuts in public services. The presence of foreigners is now structural and, among the larger municipalities, the percentage weight on the resident population is among the highest in the Peninsula (table 2).

Resident population (2011)	1.341.830
Resident population (2016)	1.368.590
Variation (2011-2016)	1,99%
Foreign resident population (2016)	18,8%
Unemployement rate (2016)	7,5%
Single-person households (2011)	276.772
Two-members households (2011)	171.824
Young population (up to 15 years old) (2016)	13,1%
Elderly population (over 65 years old) (2016)	23,5%

Table n.2: Demographic trend in the Municipality of Milan – Comune di Milano, Open Data (http://dati.comune.milano.it); www.istat.it.

¹¹⁵ Peck J. (2012), "Austerity Urbanism. American Cities Under Extreme Economy", in *City*, 16(6), pp. 626-655

¹¹⁶ In municipalities with over 400,000 inhabitants, various works highlight a price level on a national basis on average higher than about 12%, which significantly affects family budgets; in general, the share of families experiencing a condition of discomfort increases proportionally to the increase in the population size of the municipality (Freguja e Pannuzi 2007, 55).

Municipality	Description	Variation of		Property	Rent
		population			
		1991-	2001-	2011	2011
		2001	2011		
Municipio 1	Historic Center	-9,7	-6,4	58,9	26,7
Municipio 2	Centrale, Greco, Crescenzago	-6,3	4,2	68,4	24,7
Municipio 3	Venezia, Lambrate, Città Studi	-8,9	-3,2	66,9	25,3
Municipio 4	Vittoria, Romana, Rogoredo	-9,3	-0,6	63,5	30,1
Municipio 5	Ticinese, Vigentino, Gratosoglio	-8,9	0,0	63,4	30,8
Municipio 6	Genova, Giambellino, Lorenteggio	-9,9	-4,4	61,3	32,9
Municipio 7	Forze Armate, S.Siro, Baggio	-7,2	-3,9	62,3	31,1
Municipio 8	Volta, Fiera, Gallaratese, Quarto Oggiaro	-8,1	-1,1	65,4	28,5
Municipio 9	Garibaldi, Bovisa, Niguarda, Fulvio Testi	-6,5	4,1	65,2	29,0
Milan	Total	-8,3	-1,1	64,1	28,9

Tab. n.3: Variazione della popolazione, abitazioni di proprieta e in affitto nei Municipi in cui è suddivisa Milano (in %) – Dati ISTAT, Censimento della popolazione e delle abitazioni, 2011.

Even in a dynamic and internationally projected reality like Milan, the dimension of living has a strategic value for social and territorial cohesion and for the inclusive capacity of the city. The centrality of this dimension returns to show itself dramatically in times of crisis, recession and austerity, but by its nature requires stable and lasting efforts to try to counterbalance the polarizing pressures typical of an international metropolis.

In this logic, attention to residence is a fundamental component of care of the territory, in particular for the recovery of the suburbs and slums, and in this sense it is important to safeguard inclusive mechanisms in the social reproduction of the city, to avoid an increasingly introverted living and an idea of the city that produces more and more suburbs¹¹⁷.

Today we are in a context of second-generation housing policies: if in the past we tried to solve the problem of the house with interventions in public housing, expropriations, plans, assignments, paths of support to the person, realization of public works and non-repayable funding, with the new generation of neoliberal-inspired policies the watchwords have become Social Housing, cohousing, social mix, sustainability (social, economic and not least environmental) integrated service, public-private partnership and real estate funds¹¹⁸. In other words, we could highlight a change of approach because today we no longer consider living as a "service", aimed at combating forms of extreme marginality and social exclusion, especially in suburbs; we have passed, rather, an integrated and territorial approach, attentive to the quality of life, relationships and coexistence in conditions of fragility¹¹⁹, more oriented to involve the individual in a path

¹¹⁷ Lanzani A. Granata E. (2011), *Metamorfosi dell'abitare*, in Lanzani A., *In cammino nel paesaggio*. *Questioni di geografia e urbanistica*, Carocci, Roma, pp. 183-201.

¹¹⁸ De Luca A., Governa F., Lancione M. (2009), "Politiche della casa in Europa. Differenze nazionali e tendenze unificanti dell'housing sociale", in *Rivista Geografica Italiana*, 116, 3, pp. 349-378.

¹¹⁹ Cognetti F., Fava F. (2017), "La città indisciplinata. Note per una agenda di ricerca", in *Tracce urbane*, 1, pp. 126-136.

of active inclusion, with urban regeneration interventions also in neighborhoods located within the city. This new approach can also be found in the choice of intervention "by projects" ¹²⁰. The theme of the house therefore returns to be the subject of urban policies in a more flexible form, territorially integrated and within the framework of urban regeneration interventions attentive, in fact, to housing discomfort but also to the residential context, generating a plurality of responses and solutions.

The three main areas of intervention in the residential and suburban context addressed here are public housing, urban regeneration interventions and Social Housing¹²¹.

"The profound change of the social, economic, productive context, of the urban market, of the uses, the requests of the population, of the needs, demands a revisiting of the policies of welfare and local workfare, together with an adaptation of the relative spaces" (PGT Milano, 2020).

The city of Milan is among the most committed to designing its future, it is a city in continuous evolution. It is affected by various factors of change, first of all by the demographic development made known by the observation of medium-term demographic trends. Indeed, it can be seen that since 2008 the population of the city has increased considerably, especially in recent years, which is in contrast to national forecasts. This can be seen clearly in the numbers found¹²²: 1,380,873 residents in Milan in 2017, about 6.7% more than in 2008. To these numbers is added a considerable increase given by other types of residents not present in demographic reports, such as: students, commuters, city users¹²³, tourists, irregular immigrants.

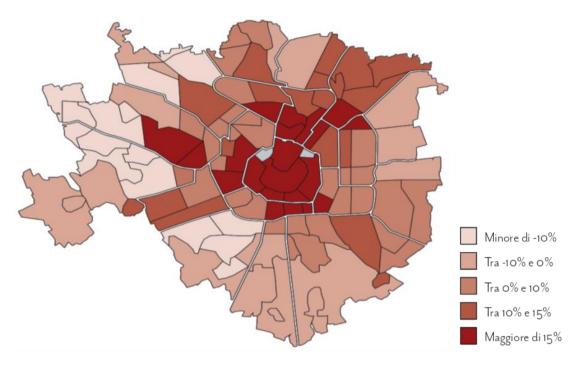
Within the territory of Milan the population is distributed differently in the neighborhoods, both in quantity and type, concentrating mainly in some areas of the city center. The most densely populated area is that of Municipality 2, Centrale-Greco-Crescenzago, with a figure of just over 12000 ab/km² compared to the average city of about 7500 ab/ km² followed by the Historical Center and the City Hall 3 (Venezia-Lambrate-Città Studi).

¹²⁰ At the institutional level, for example, the Direzione Generale Casa of the Lombardy Region has been placed within the framework of Social Policies since 2010.

¹²¹ The measures of economic support to housing, which mainly concern those situations that are defined as "absolute housing emergency", have not been considered here but increasingly involve also layers of the "grey band" progressively exposed to the risk of insolvency due to the increasing incidence of rental costs on income.

¹²² Comune di Milano, SISI.

¹²³City users are those who travel to the city to use public and private services for purchase, entertainment, tourism, paperwork, etc.



Picture n.11: Percentage change in resident population by NIL (Nuclei Identità Locali, Local Identity Cores), 2015-2035, average hypothesis – https://www.pgt.comune.milano.it/, 2022

Consulting the reports of the main real estate companies, it was possible to understand the trends of the real estate market in the city of Milan on the residential sector. It is essential to enter a quick overview of the market by briefly reporting the values related to the sale and rental of residential units. In May 2022, an average of \notin 5,056/sqm was required for the sale of residential properties, representing an increase of 5.14% from May 2021. December 2020 is the month when the lowest price was requested: about \notin 4,712/sqm for a property for sale.

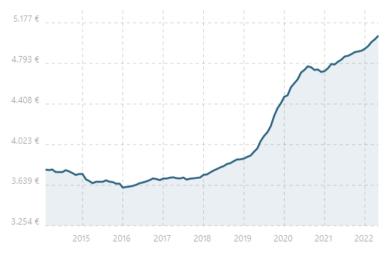


Grafico n.10: Andamento storico del mercato immobiliare di Milano – Case in vendita - https://www.immobiliare.it, 2022

On the other hand, regarding the rental market, in the last month an average of $\in 19.68$ /sqm per month has been requested, which marks an increase of 9.33% from May 2021 ($\in 18.00$ /sqm per month). Rents in Milan have increased by 35% in the last five years. This has made it even more evident how much the city needs new affordable housing solutions¹²⁴.

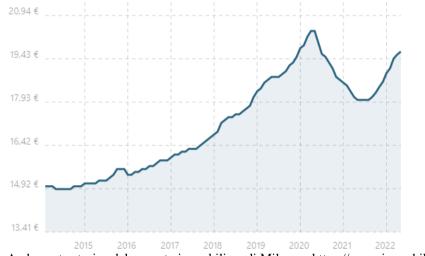


Grafico n.11: Andamento storico del mercato immobiliare di Milano - https://www.immobiliare.it, 2022

Precisely on this aspect, this research also wants to offer considerations on the scenario of supply and demand for residential units. It is well known that families in Italy spend an increasing part of their available budget for housing; this is due to the increase in the prices of rents and utilities and, on the other hand, a decrease in the average economic power of households. Particular attention should be paid to young people (including young families) and students, who are facing an increasingly difficult situation. As for student accommodation, it is interesting to note that Italy, compared to other European countries, offers a very limited offer; only 4% of students live in university residences.

Regarding Social Housing, a growing trend that had to be studied concerns the rental industry and built-to-rent solutions; is an innovative way of living the house not only as a living space but also to enjoy a wide range of additional services, such as babysitting, dog sitting, concierge, dedicated smart work areas, fitness facilities and more. These aspects, which are only briefly mentioned in this introduction, will be discussed in depth in the descriptions of the various selected case studies.

¹²⁴ https://www.immobiliare.it, 2022

4.3. CASCINA MERLATA 4.3.1. CONTEXT ANALYSIS



Picture n.11: Cascina Merlata project area - Google Maps, 2022

Cascina Merlata is a district of Milan, part of the Zone 8 administrative division of the city. It is adjacent to the Expo 2015 exhibition site and borders the districts of Roserio. Gallaratese and Musocco, as well as the municipality of Pero, and can be accessed via the M1 metro line (Molino Dorino and San Leonardo subway stops), the surface public line No. 35 and the A4 and A8 highways. The district covers an area of approximately 900.000 sqm (with a real estate value ranging

from 1750 to 2600 €/sqm for selling and from 6 to 9 €/sqm for renting) that comprehend a large urban park of 300.000 sqm, a school complex of 12.000 sqm, a shopping center of 60.000 sqm, in addition to housing divided into several lots (52.500 sqm of social housing; 127.000 sqm under agreement; 143.500 sqm free housing).



Picture n.12: Milan PGT urban services map – https://ordinearchitetti.mi.it/it, 2022

The district was originally requalified during Expo 2015 as the Expo Village, designed by EuroMilano SpA, consisting of 7 residential towers designed by architects Cino Zucchi, C + S Associati, MCA di Mario Cucinella Architects, Teknoarch, B22 and Pura. The works, which began in June 2013, ended in March 2015. During the Universal Exposition they were intended to welcome the representatives of the international delegations and the staff of the countries participating in the Universal Exposition. After the event, from July 2016, a further 4 buildings with 293 accommodations were built alongside the first 7 towers intended for the Expo Village. Once completed, it became the largest social housing settlement in Italy with a total of 690 homes and the first entirely zero-emission neighborhood¹²⁵.

From the PGT urban services map, namely the PS_S01_Servizi_Esistenti, it can be noticed how the majority of the Cascina Merlata area is subject to urban reweal works (in light purple). Next to the district the former Expo area can be noticed as well: the two locations are strictly connected, both geographically and urbanistically, as they are meant to interact with each other.

4.3.2. UPTOWN MILANO



Picture n.13: UpTown Milano project – http://www.socialvillagecm.it, 2015

The requalification project of Cascina Merlata and the Village. Expo **UpTown** Milano, covers the entire 900.000 sqm-area of the district and required an investment of 1,2 billions €. After the tender, that took place in November 2011, the construction works started in 2018 and are meant to finish within 2023. Currently most of the district has already been completed, with the exception of the Feel UpTown Milano lot, whose

development started in 2021. The promoter company of the project, EuroMilano S.p.A. (which is also the fund management company and the main investor, while the social management is entrusted to the QLS cooperative), aims at creating a location driven by the principles of sustainability and the use of the most advanced technologies in order to reduce the environmental impact and promote energy saving: all the residential buildings are designed with an energetic class above A1 (New regulation Dec. Int. of 26/06/2015). UpTown Milano doesn't just offer the residential buildings of the Cascina Merlata Social Village, but various services too:

- SCHOOL DISTRICT: One of the biggest public schools in Milan, it can accommodate up to 920 students, divided by age in kindergarten (8 classes 200 children), elementary school (15 classes 375 students) and middle school (9 classes 225 students). The school is provided with a gym and sport facilities that will be accessible to all residents during the closing hours of the school.
- MERLATA BLOOM SHOPPING MALL: Intended to be the biggest shopping mall in the Milanese area, Merlata Bloom is positioned along the A4 highway

¹²⁵ Mulinello, V. (12 march 2015). *Consegnato il Villaggio Expo a Cascina Merlata*. Da "Il Nuovo Cantiere", http://www.ilnuovocantiere.it/consegnato-il-villaggio-expo-a-cascina-merlata/

between Cascina Merlata and the MIND Milano Innovation District, effectively connecting the two areas. It will be provided with not only shops and commercial areas (55.000 sqm), but also a multiplex cinema and other recreative spaces (10.000 sqm), public plazas and food courts (20.000 sqm) and an underground public parking lot with 3.500 parking spaces (40.000 sqm).

 LA CASCINA SERVICE CENTER: The old Cascina Merlata, that gives its name to the entire district, has undergone an accurate refurbishment, completed in April 2015. This recovery and redevelopment work grants to the residents of Cascina Merlata and Gallaratese districts a series of structures of public interests, namely a district info point, a medical center, a polyclinic, a veterinarian, a polyfunctional space, a drop off point, an agricultural market, a bar and restaurant.

UpTown pays attention to green mobility: the district provides can and bike sharing services at a preferential tariff. In particular, the vehicles of the car sharing service, made in collaboration with Share'n'Go, are 100% electric, while the bikes have 10 km of cycle path at their disposal throughout the whole district. Moreover, UpTown Milano extends along one of the eight Green Rays of the city, fostering slow green mobility¹²⁶.

From the economical point of view, unfortunately, UpTown Milano is experiencing some difficulties: despite the 98% of the residences has been sold, the revenues do not cover the costs, that from 2020 to 2021 have grown from 43 to 54 millions \in^{127} .

4.3.3. SOCIAL VILLAGE CASCINA MERLATA



Picture n.14: Social Village Cascina Merlata project – http://www.socialvillagecm.it/, 2015

Within the UpTown Milano district takes place the Social Village Cascina Merlata residential complex. The project involves the construction of eleven towers (for a total of 52,500 sqm and 697 apartments), seven of which had been realized for Expo 2015 as part of the Expo Village, in order to welcome the representatives of the international delegations and the staff of the countries participating the event. After the conclusion of Expo 2015, the buildings (both the private and the public sections) have been completely refurbished, creating 397 of the total 697 apartments of the

Social Village, offered for long-term lease, on sale, or on pact of future sale. The apartments are mainly aimed at students, people with disabilities, singles or households with a yearly income between $14,000 \notin$ and $40,000 \notin$, and their price range goes from 430 \notin to $662 \notin$ (while the real estate value of the area ranges from 1750 to $2600 \notin$ /sqm).

¹²⁶ Euromilano. (2018, maggio). *Euromilano Brochure UpTown*. In CRAL Regione Lombardia: http://cralregionelombardia.com/wp-content/uploads/2018/05/Euromilano_Brochure_Uptown.pdf

¹²⁷ Floris, F. (2021). Il buco di Cascina Merlata. Euromilano perde 17 milioni, Intesa ci crede: bonus per i manager, in "True".

The promoter of the project is Fondo Housing Sociale Cascina Merlata, while EuroMilano S.p.A., involved in the creation of UpTown Milano, is the main investor of the Social Village. The project's funds are managed by Investire Società di Gestione del Risparmio S.p.A., while the social aspects are managed by Fondazione Housing Sociale, the Social Technical Advisor, and DAR=CASA Società Cooperativa and KService Impresa Sociale Temporary Grouping, who acts as the Social Manager of the project. Social Village Cascina Merlata offers an innovative housing model in which the residents, supported by a Social Manager, actively take part in sharing and keeping alive the common spaces, located at the ground floor of each building and designed as a multifunctional space that includes reception, medical assistance, laundry, gym, interreligious space, meeting room, living room and newspaper library and where any other activity or service deemed useful or functional by the residents can be developed.¹²⁸

¹²⁸ EuroMilano. (2020). "Social Village Cascina Merlata". In *Social Village Cascina Merlata*, available at: http://www.socialvillagecm.it/socialvillagecascinamerlata/

4.3.4. MAPPING AND ANALYSIS CHARTS OF THE UPTOWN MILANO PROJECT

		URBAN RENOVATION	SOURCES
Project identification data	Project name	UpTown Milano	http://cralregionelombardia.com /wp- content/uploads/2018/05/Eurom ilano_Brochure_Uptown.pdf
	Localization	Cascina Merlata district, Milano	http://cralregionelombardia.com /wp- content/uploads/2018/05/Eurom ilano_Brochure_Uptown.pdf
	Intervention area	900.000 sqm	http://cralregionelombardia.com /wp- content/uploads/2018/05/Eurom ilano_Brochure_Uptown.pdf
	Amount of investment	€ 1.200.000	http://cralregionelombardia.com /wp- content/uploads/2018/05/Eurom ilano_Brochure_Uptown.pdf
	Land reclamation costs	€ 7.800.000	https://www.comune.milano.it/d ocuments/20126/100421460/All _B.12_Norme_tecniche_PII.pdf/8 8815176-3d34-3d08-d894- 4b5e79ba3c3c?t=158799608515 3
	Project description	The riqualification of Cascina Merlata district pays attention to the problematics tied to environmental sustainability by approaching it in every aspect of the project, which comprehends housing projects, public spaces and services for the residents.	http://cralregionelombardia.com /wp- content/uploads/2018/05/Eurom ilano_Brochure_Uptown.pdf
Territorial framework	Accessibility	M1 Molino Dorino and San Leonardo subway stops; surface public line No. 35; A4 and A8 highways At 15 minutes from both the Duomo and Malpensa	http://cralregionelombardia.com /wp- content/uploads/2018/05/Eurom ilano_Brochure_Uptown.pdf
	Pre-existing services	The area hosts the Expo Village, intended to welcome the representatives of the international delegations and the staff of the countries participating in the Universal Exposition.	http://cralregionelombardia.com /wp- content/uploads/2018/05/Eurom ilano_Brochure_Uptown.pdf
	Real estate market	Real Estate Market: Cascina Merlata area (reference: Abitazioni civili normali) Sale values range: 1750 - 2600 €/sqm Rent values range: 6 - 9 €/sqm/month	https://www.immobiliare.it/
Stakeholders and partners	Masterplan architects	Studio Scandurra, Zanetti Design Architettura, Recchi Engineering, Al Engineering	https://www.bimportale.com/bi mportale-progetti-uptown-a- cascina-merlata/
	Developer	EuroMilano S.p.A.	http://www.ilnuovocantiere.it/c onsegnato-il-villaggio-expo-a- cascina-merlata/
	Land owner	EuroMilano S.p.A.	http://www.ilnuovocantiere.it/c onsegnato-il-villaggio-expo-a- cascina-merlata/
	Others	-Fund management company: EuroMilano S.p.A. -Project management: Re_View (Society of the EuroMilano Group) -Social management: QLS	https://www.fhs.it/progetti/resid enze/cascina-merlata/
Timeline	Public tender Land aquisition date and its	2017 N/A	http://www.socialvillagecm.it/so cialvillagecascinamerlata/

	acquisition cost		
	Start date	17th November 2018	http://www.socialvillagecm.it/so cialvillagecascinamerlata/
	Finish date	Summer 2023	http://www.socialvillagecm.it/so cialvillagecascinamerlata/
	Current status	Completed with the exception of the Feel UpTown lot	https://www.uptown-milano.it/
Functional	Public functional mix	Free residences	http://cralregionelombardia.com
mix		Conventioned residences	/wp- content/uploads/2018/05/Eurom
		School District	ilano_Brochure_Uptown.pdf
		Expo Village and Social Housing	http://www.ilnuovocantiere.it/c onsegnato-il-villaggio-expo-a-
	Private	Merlata Mall Shopping Centre	cascina-merlata/
	functional mix	Cascina Merlata Community Centre	http://www.socialvillagecm.it/so cialvillagecascinamerlata/

		SOCIAL HOUSING PROJECT	SOURCES
Project identificatio	Project name	Social Village Cascina Merlata	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
n data	Localization	Cascina Merlata district, Milano	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Intervention area	52.500 sqm	http://www.ilnuovocantiere.it/con segnato-il-villaggio-expo-a-cascina- merlata/
	Amount of investment	N/A	
	Project description	After Expo 2015 the Expo Village is expanded from seven to eleven towers in order to create the biggest Social Housing settlement in Italy.	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
Territorial framework	Accessibility	M1 Molino Dorino and San Leonardo subway stops; surface public line No. 35; A4 and A8 highways At 15 minutes from both the Duomo and Malpensa	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Pre-existing services	The area hosts the Expo Village, intended to welcome the representatives of the international delegations and the staff of the countries participating in the Universal Exposition.	http://cralregionelombardia.com/ wp- content/uploads/2018/05/Euromil ano_Brochure_Uptown.pdf
	Real estate market	Real Estate Market: Cascina Merlata area (reference: Abitazioni civili normali) Sale values range: 1750 - 2600 €/sqm Rent values range: 6 - 9 €/sqm/month	https://www.immobiliare.it/
Stakeholder s and	Developer	Fondo Housing Sociale Cascina Merlata	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
partners	Land owner	EuroMilano S.p.A.	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Social manager	DAR=CASA Società Cooperativa and KService Impresa Sociale Temporary Grouping	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Others	 -Fund management company: Investire Società di Gestione del Risparmio S.p.A. -Main investor: EuroMilano S.p.A. -Architects: Antonio Citterio, Patricia Viel & Partners, CZA ARCHITETTI, Studio C+S Cappai e Segantini Associati, MCA di Mario Cucinella Architects, Teknoarch, B22 -Urban design: Antonio Citterio, Patricia Viel & Partners -Social technical advisor: Fondazione Housing Sociale 	http://www.socialvillagecm.it/socia lvillagecascinamerlata/ https://www.fhs.it/progetti/reside nze/cascina-merlata/ https://www.cdpisgr.it/area- stampa/comunicati- stampa/cascina-merlata-social- housing-parte-la-fase-2.html https://www.idealista.it/news/imm obiliare/costruzioni/2019/03/26/13 0540-cascina-merlata-parte-la-fase- 2-del-progetto-di-social-housing-a- milano
Timeline	Public tender	2008	https://www.fhs.it/progetti/reside nze/cascina-merlata/ http://www.ilnuovocantiere.it/con
	Land aquisition date	2015	segnato-il-villaggio-expo-a-cascina- merlata/
	Start date	July 2016	http://www.ilnuovocantiere.it/con segnato-il-villaggio-expo-a-cascina- merlata/
	Finish date	Late 2020	Cascina Merlata social housing, parte la fase 2 - CDP Immobiliare Sgr (cdpisgr.it)
	Current status	Completed	Cascina Merlata social housing, parte la fase 2 - CDP Immobiliare Sgr (cdpisgr.it)
Social mix and functional	Total residential area (sqm)	323.500 sqm	http://www.ilnuovocantiere.it/con segnato-il-villaggio-expo-a-cascina- merlata/
mix	Total non residential area (sqm)	70.000 sqm	https://www.comune.milano.it/do cuments/20126/100421460/All_B. 12_Norme_tecniche_PII.pdf/88815

			176-3d34-3d08-d894- 4b5e79ba3c3c?t=1587996085153
Green area surface (sqm)	250.000 sqm (U	ptown Milano public park)	http://crairegionelombardia.com/ wpcontent/uploads/2018/05/Euro milano_Brochure_Uptown.pdf
Common area surface (sqm)	N/A		
Type of non residential spaces	Laundries, gyms rooms and libra	s, religious spaces, meeting rooms, living ries	http://www.ilnuovocantiere.it/con segnato-il-villaggio-expo-a-cascina- merlata/
Services		ool and commercial districts, with a tre and other social functions connected to	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
Free housing	Target group	Students, people with disabilities, singles or households	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Total squared meters	143.500 sqm	http://www.ilnuovocantiere.it/con segnato-il-villaggio-expo-a-cascina- merlata/
	Type of accomodation	One, two, three, four-room apartments	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Purchase values (Euro/sqm)	N/A	
	Lease values (Euro/sqm)	N/A	
Ordinary conventioned housing	Target group	Students, people with disabilities, singles or households with a yearly income between 14,000 € and 40,000 €	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Total squared meters	127.000 sqm	http://www.socialvillagecm.it/appa rtamenti/affitto/
	Type of accomodation	One, two, three, four-room apartments	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Purchase values (Euro/sqm)	2.292 €/sqm	http://www.socialvillagecm.it/appa rtamenti/affitto/
	Lease values	-Two-rooms apartment: from €430 -Three-rooms apartment: from €513 -Four-rooms apartment: from €662	http://www.socialvillagecm.it/appa rtamenti/affitto/
HS - Lett. A - Agevolata	Target group	Students, people with disabilities, singles or households with a yearly income between 14,000 € and 40,000 €	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Total squared meters	60.000 sqm	http://www.ilnuovocantiere.it/con segnato-il-villaggio-expo-a-cascina- merlata/
	Type of accomodation	One, two, three, four-room apartments	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Purchase values (Euro/sqm)	N/A	
	Lease values	N/A	
HS - Lett. B - Canone moderato	N/A		
HS - Lett. C - Canone sociale	Target group	Students, people with disabilities, singles or households with a yearly income between 14,000 € and 40,000 €	http://www.socialvillagecm.it/socia lvillagecascinamerlata/

		Total squared meters	52.500 sqm	https://www.comune.milano.it/do cuments/20126/100421460/All_B. 12_Norme_tecniche_PII.pdf/88815 176-3d34-3d08-d894- 4b5e79ba3c3c?t=1587996085153
		Type of accomodation	One, two, three, four-room apartments	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
		Purchase values (Euro/sqm)	N/A	
		Lease values	N/A	
Social manager	Type of social manager contract	N/A		
	Contract duration	N/A		
	Total employees	N/A		
	Management software	N/A		
	Vacancy index	2% of the reside	ences unoccupied	http://www.socialvillagecm.it/socia lvillagecascinamerlata/
	Community activities and integrated social management	promotes activi recreational act	have created the ViviVillage Association, that ties such as leisure classes, a library, ivities for children, storage and distribution chased with groups of purchase.	https://vivivillage.it/
	Property management activities	N/A		
	Facility management activities	N/A		

4.3.5. CONSIDERATIONS

In the last decades the city of Milan seems to have fully accepted the challenge of an urban transformation based on an eco-sustainable and smart city model in line with the ESG (Environmental, Social and Governance) criteria: for more than the 40% of the citizens of Milan, sustainability is not a passing trend, but a priority theme that cannot be ignored anymore. The opportunity of realizing green building and housing is the great challenge for the future that Milan has already picked up thanks to projects that require renewable natural resources and that aim to fit harmoniously in the urban environment with a strong consideration for the requalification of spaces.

UpTown Milano, in particular, is a Smart City focused on sustainable development where the Information and Communication Technology (ICT) serves good architecture and the valorization of human relations, acting as an accelerator in the creation of a community. This centrality of the human relations makes the concept of Smart City evolve into the one of Wellbeing City, offering a new way to live in the city in respect with nature and as part of a community. Still, also technology is important in this concept, providing zeroemission buildings, domotics and the electric buses that will travel along the main streets of the district.

For this, UpTown Milano complies with 6 of the 17 SDG Goals:

- Good health and well-being (3);
- Affordable and clean energy (7);
- Sustainable cities and communities (11);
- Climate action (13);
- Life on land (15);
- Partnerships for goals (17).

UpTown Milano is the first Smart Sustainable District of the city, and hopefully it will be the first of many, that will follow its guidelines for eco-sustainability and human community creation¹²⁹.

¹²⁹ Euromilano (2018), op. cit.

4.4. ROGOREDO

4.4.1. CONTEXT ANALYSIS

The Rogoredo area, located on the southeastern side of the city of Milan, is a strategic area for the consolidation and unification of the metropolitan area. It is a district with a history of industrial development and important transport infrastructure for the city that, together with its architectural and environmental heritage, must be developed as a hub. However, due to its irregular growth, the railways, national highways, and particular needs, the growth of the area has been longer than expected due to the high number of stakeholders and number of https://redomilano.it/, 2017 ongoing projects.



Picture n.15: Rogoredo project area -

Considering the particular interest of this report in the Redo - Merezzate project is pertinent to mention that this is not the only project in progress in this area without previous development; it is a cluster of renovation projects, including Santa Giulia PII, the development of the tertiary commercial sector via Manzú, and the Merezzate PII (Piano Integrato di Intervento, Integrated Action Plan)¹³⁰.



From the PGT urban services map, specifically the PS S01_Servizi_Esistenti, it can be noticed how the reference area is subject to urban renewal. The primary services are transport infrastructure and sport facilities for the residential use, and it is possible to find two types of housing: housing a market price, colored in brown, and Social Housing projects, represented by green stripes over solid brown.

Picture n.16: Milan PGT urban services map https://ordinearchitetti.mi.it/it, 2022

¹³⁰ Mussinelli, E. (2019), Le problematiche urbane del municipio 4. In Una strategia per il sud-est di Milano L'hub di Rogoredo, Milano pp. 25-32.

4.4.2. MEREZZATE



Picture n. 17: Merezzate project area – https://redomilano.it/, 2017

The Merezzate neighborhood is bounded by the Milan-Rome railway line, the Tangenziale Est route, and the new SS Paullese. The intervened area has a surface of 76.186 square meters owned by the state, which from the beginning was conceived in its entirety as social housing with agreed sales prices and low speculative level.

The project currently executed had modifications concerning the initial design suggested by the InvestiRE SGR fund (asset management company) to improve the project's quality. There are two main categories of improvements. The first is related to land management, the number of houses available for each bracket, the stakeholder's participation, and the second category regarding the design of the master plan, the buildings, services, and public space generated.

About the first category, during the planning phase, the stakeholders decided to reduce the number of houses for sale at reduced prices (reference sale price \notin 200/sqm) to public housing (rental price \notin 1/sqm) 131. Since, according to the studies carried out, there was a greater need for the second type of housing, although in economic terms, the remuneration was lower. Additionally, both housing types are mixed throughout the project to achieve a social mix and not a division of user-profiles as was initially conceived; this decision also changes the responsibilities of developers, builders, and operational management. Fingroup s.p.a developed the blocks defined for sale at a reduced price while the social housing blocks were promoted by social Fondo Immobiliare di Lombardia InvestiRE SGR.

The second category related to the master plan is modified in terms of the general heights of the buildings of a maximum of four floors to maintain a pedestrian scale on the roads of higher hierarchy. The building's typology is predominant in a horseshoe shape to conform inner public space, with activities on the first floor complementary to the residence. The complementary service with an intermediate scale found in the project is the elementary school located on the south side of Via Giacomo Medici del Vascello, which responds to the needs of the user profile.

¹³¹ Gambaro, M. (2019). Il programma integrato di intervento PII Merezzate. In Una strategia per il sudest di Milano. L'hub di Rogoredo, Milano, p. 79-83.

4.4.3. REDO: SOCIAL HOUSING PROJECT

The Redo residential complex proposes additional four strategies to complement the housing demand. The first strategy is the implementation of sustainable living, defined for this project as the classification of buildings in energy class type A with remote control of heating systems. The second strategy is implementing technology to rent common spaces and monitor and control the actual energy consumption. Finally, the third strategy is from the architectural design, the proposal of

diverse apartments to receive a more



Fig. n. 18: Aree sviluppate da Redo SGR – https://redomilano.it/, 2017

significant number of family compositions. In parallel to these strategies, there is a horizontal objective to create a community between inhabitants through sharing common areas and doing activities like car-sharing and vegetable gardens that also positively impact the environment. The complementary services for the residential area include shops, a nursery, and a creative laboratory.

The project's execution and design have developed a competition that included 38 participants firms to build the new 615 dwellings. This group selected six architectural design firms and four engineering offices jointly with the introduction of partners such as A2A energy company, Fondazione housing sociale as a social-technical advisor, Planet idea for smart partner consultant, and Ecopolis Servizi as a social manager132.

It's important to highlight the evolution of the stakeholder's model based on the inclusion of relevant actual figures such as the smart consultant and social manager, that have a crucial role in the adaptation and consolidation of a community in social housing dwellings.

Redo was designed by Beretta Associati and Mab Arquitectura, two recognized companies with experience in social housing projects that conceived four typologies of apartments to solve the target group's needs. The adjudication criteria prioritize the following five groups: First, large families (at least five members); families with disabled persons and assistance personnel; young couples with newly formed nuclei; single parents with minor children; temporary workers - student workers; law enforcement and similar.

Analyzing the relationship between the project and the urban renovation project is not easy to establish a division between them due to the joint participation of the stakeholders in both scale projects, which is positive from the perspective of coordination and decisionmaking process. Additionally, the coordination between common interests towards a smart district focuses the effort to go a step forward and develop a Merezzate+, an app that allows users and managers to monitor and save relevant data about the different stages and behaviors of the social housing projects. On the other hand, from the urban design perspective, the heights and morphological compositions of the buildings are

¹³² REDO SGR s.p.a. (n.d.). REDO connessioni abitative. In https://www.redomilano.it/progetto

appropriate for the pedestrian scale. It can be interpreted as a positive evolution from social housing projects developed during the 50s characterized by high-density buildings and low land occupation. A critical aspect essential to highlight is the setback of the urban block configuration introducing the fence, which limits the number of accesses to the residential project and negatively impacts the dynamism of the street, which is a determinant characteristic of social integration and community formation.

4.4.4. MAPPING AND ANALYSIS CHARTS OF THE REDO – MEREZZATE PROJECT

	-	URBAN RENOVATION	SOURCES
Project identification data	Project name	Merezzate	https://ricerca.repubblica.it/re pubblica/archivio/repubblica/2 019/05/21/il-volto-nuovo-di- rogoredo-smart-verde-e-low- costMilano02.html
	Localization	Milano, Municipality 4, Regoredo Santa giulia Area, Via Merezzate	https://www.infobuild.it/prog etti/milano-housing-sociale- santa-giulia/
	Intervention area	76.186 square meters - divided in 7 areas	https://www.comune.milano.i t/aree-tematiche/urbanistica- ed-edilizia/attuazione- pgt/merezzate-pii
	Amount of investment	€ 70.000.000	https://ricerca.repubblica.it/re pubblica/archivio/repubblica/2 019/05/21/il-volto-nuovo-di- rogoredo-smart-verde-e-low- costMilano02.html
	Land reclamation costs	€ 2.100.000	Deliberazione della Giunta Comunale n. 1064 del 23/05/2014
	Project description	The project is part of the European program Smart Sustainable Districts. The Master plan comprises housing projects, public space, and complementary activities to the residence.	https://www.infobuild.it/prog etti/milano-housing-sociale- santa-giulia/
Territorial framework	Accessibility	The Merezzate neighborhood is bounded by the Milan-Rome railway line, the Tangenziale Est route, and the new SS Paullese.Main roads: Racccordo autostrada del sole (1,8 km) Metro station : Porto di Mare (1,8 km) Train station: Milano Regoredo (900 m)	https://redosgr.it/merezzate/
	Services	Former site of the Montedison factory and the Redaelli steelworks	https://ricerca.repubblica.it/re pubblica/archivio/repubblica/2 019/05/21/il-volto-nuovo-di- rogoredo-smart-verde-e-low- costMilano02.html
	Real estate market	Santa Giulia (reference: Abitazioni civili normali) Sale values range: 1800 - 2550 €/sqm Rent values range: 6 - 8,2 €/sqm/month	https://www.immobiliare.it/
Stakeholders and partners	Masterplan architects	Up ! Laboratory	https://agep.it/progetti/un- quartiere-via-merezzate/
	Developer	Redo SGR S.p.A Società Benefit	https://www.mpartner.it/proj ects/social-housing- merezzate-milano/?lang=en
	Land owner	Milan Municipality	https://www.comune.milano.i t/documents/20126/43476938 5/Merezzate+- +Scheda+dati+tecnici+di+prog etto.pdf/d7ad1e9f-41f5-a914- 22c9- 3db0aa633bc3?t=1554201391 672
	Others	 -Asset management company: InvestiRE SGR -Landscape design: MqP Associati -Main architects and planners: AG&P Greenscape Studio Beretta Associati e MAB Arquitectura Studio Brugellis con Elio di Franco e Giorgieri -PPP's: 	https://www.infobuild.it/prog etti/milano-housing-sociale- santa-giulia/ https://www.berettaassociati.i t/projects/social-housing-via- merezzate/ https://modulo.net/it/realizza zioni/redo

		Milan municipality - Regione Lombardia - CDP Investimenti SGR S.p.A.	
Timeline	Public tender	25 October 2010	https://www.redomilano.it/pr ogetto
	Land aquisition date and its acquisition cost	September 25th, 2015 90 years-long building lease: €12.167.006,66	https://www.redomilano.it/pr ogetto
	Start date	June 2017	https://www.redomilano.it/pr ogetto
	Finish date	2019	https://ricerca.repubblica.it/re pubblica/archivio/repubblica/2 019/05/21/il-volto-nuovo-di- rogoredo-smart-verde-e-low- costMilano02.html
	Current status	Completed	https://ricerca.repubblica.it/re pubblica/archivio/repubblica/2 019/05/21/il-volto-nuovo-di- rogoredo-smart-verde-e-low- costMilano02.html
Functional	Public	Elementary school	https://modulo.net/it/realizza zioni/redo
mix	functional mix	Conventioned residences on sale	210111/1200
		Conventioned residences on rent	
	Private functional mix	Cascina Merezzate	
		Commercial areas	

		SOCIAL HOUSING PROJECT	SOURCES
Project identificatio n data	Project name	Redo Merezzate	https://www.infobuild.it/p rogetti/milano-housing- sociale-santa-giulia/
in data	Localization	Via Eugenio Colorni, 4, 20138 Milano MI	https://www.infobuild.it/p rogetti/milano-housing- sociale-santa-giulia/
	Intervention area (sqm)	48.700 sqm	https://www.mpartner.it/ projects/social-housing- merezzate-milano/
	Amount of investment	€ 55.000.000	https://www.mpartner.it/ projects/social-housing- merezzate-milano/
	Project description	Low-density mid-rise social housing neighborhood.typological mix of buildings: high in line, low in line, corner and tower buildings. Particular attention in the ground floor plan to contain technological functions or complementary services.	https://www.infobuild.it/p rogetti/milano-housing- sociale-santa-giulia/
Territorial framework	Accessibility	The Merezzate neighborhood is bounded by the Milan-Rome railway line, the Tangenziale Est route, and the new SS Paullese.Main roads: Racccordo autostrada del sole (1,8 km) Metro station : Porto di Mare (1,8 km) Train station: Milano Regoredo (900 m)	https://redosgr.it/merezza te
	Pre-existing services	Unbuilt area	http://www.up- lab.it/merezzate-housing/
	Real estate market	Santa Giulia (reference: Abitazioni civili normali) Sale values range: 1.800 – 2.550 €/sqm Rent values range: 6 - 8,2 €/sqm/month	https://www.immobiliare.i t
Stakeholder s and	Developer	Fondo immobiliare di Lombardia	https://redosgr.it/merezza te
partners	Land owner	Milan municipality	https://www.comune.mila no.it/documents/20126/4 34769385/Merezzate+- +Scheda+dati+tecnici+di+p rogetto.pdf/d7ad1e9f- 41f5-a914-22c9- 3db0aa633bc3?t=1554201 391672
	Social manager	Ecopolis Servizi Gestore Sociale	https://www.fhs.it/progett i/residenze/redo-milano/
	Others	Main investor: CDP Investimenti SGR S.p.A. Asset manager: InvestiRE SGR Project manager: REDO SGR (Fil 1) Social technical advisor: Fondazione Housing Sociale Architects: D&D, Arching, Beretta Associati, MAB Arquitectura, Ing. Giovanni Francesco Lo Cigno, Prof. Arch. Pietro Basilio Giorgieri, Arch. Giuseppe Brugellis, Arch. Elio Angelo di Franco PPP's: Milan municipality - Regione Lombardia - CDP Investimenti SGR S.p.A. Promoter Merezzate +: Politecnico di Milano - Dipartimento di Energia, Cnsorzio Poliedra, A2A Smart City, A2A Calore e Servizi Structural engineer: M Partner Partner smart consultant: Planet Idea	https://ricerca.repubblica.i t/repubblica/archivio/repu bblica/2019/05/21/il- volto-nuovo-di-rogoredo- smart-verde-e-low- costMilano02.html https://bebeez.it/files/201 9/05/Comunicato-stampa- REDO-Milano-003211.pdf https://www.idealista.it/n ews/speciali/reportage/20 22/04/08/158547-redo- merezzate https://www.fhs.it/progett i/residenze/redo-milano/

Timeline	Public tender	2017		https://www.fhs.it/progett
				i/residenze/redo-milano/
	Land aquisition date	September 25th, 2015 90 years-long building le	ease: €12.167.006,66	https://www.redomilano.i t/progetto
	Start date	2018	https://www.fhs.it/progett i/residenze/redo-milano/	
	Finish date	2019		https://www.fhs.it/progett i/residenze/redo-milano/
	Current status	Completed		https://www.fhs.it/progett i/residenze/redo-milano/
Social mix and functional mix	Total residential area (sqm)	36.720 sqm		https://ricerca.repubblica.i t/repubblica/archivio/repu bblica/2019/05/21/il- volto-nuovo-di-rogoredo- smart-verde-e-low- costMilano02.html
	Total non residential area (sqm)	9.100 sqm		https://www.fhs.it/2022/0 4/13/student-housing- antirion-lancia-il-fondo- student-2-duplicate-1/
	Green area surface (sqm)	10.500 sqm (7.500 sqm green)	https://www.redomilano.i t/	
	Common area surface (sqm)	1.600 sqm	https://www.redomilano.i t/	
	Type of non residential spaces	Community lab, vegetal playgrounds.	https://ricerca.repubblica.i t/repubblica/archivio/repu bblica/2019/05/21/il- volto-nuovo-di-rogoredo- smart-verde-e-low- costMilano02.html	
	Services	Nursery,a commercial a the residence.	rea and other social functions connected to	https://www.redomilano.i t/
	Free housing	N/A		https://ricerca.repubblica.i t/repubblica/archivio/repu bblica/2019/05/21/il- volto-nuovo-di-rogoredo- smart-verde-e-low- costMilano02.html
	Ordinary conventioned housing	Target group	Large families with at least five members; families with disabled people and assistance personnel; young couples; single parents with underage children; temporary workers - student workers; law enforcement and similar.	https://www.redomilano.i t/
		Total squared meters	N/A	
		Type of accomodation	One, two, three, four-room apartments	https://ricerca.repubblica.i t/repubblica/archivio/repu bblica/2019/05/21/il- volto-nuovo-di-rogoredo- smart-verde-e-low- costMilano02.html http://www.redomilano.it
		Purchase values (Euro/sqm)	2.195 €/sqm	https://ricerca.repubblica.i t/repubblica/archivio/repu bblica/2019/05/21/il- volto-nuovo-di-rogoredo- smart-verde-e-low- costMilano02.html http://www.redomilano.it

		Lease values	-One-room apartment: €350	https://ricerca.repubblica.i	
			 -Two-rooms apartment: €500 (average) -Three-rooms apartment: €615 -Four-rooms apartment: €940 	t/repubblica/archivio/repu bblica/2019/05/21/il- volto-nuovo-di-rogoredo- smart-verde-e-low- costMilano02.html http://www.redomilano.it	
	HS - Lett. A - Agevolata	N/A	N/A		
	HS - Lett. B - Canone moderato	N/A	N/A		
	HS - Lett. C - Canone sociale	Target group	Families with: - request for accommodation assignment already included in the 21 ERP RANKING LIST on the date of presentation of the expression of interest indicated in the following paragraph; - the requirements of current regional legislation for access to the ERP; - ISEE-erp not less than € 7.000.	https://www.redomilano.i t/assets/pdf/AVVISO%20P UBBLICO-REDO.pdf	
		Total squared meters	N/A		
		Type of accomodation	Apartments for families with memebers from two to six (68 total)	https://www.redomilano.i t/assets/pdf/AVVISO%20P UBBLICO-REDO.pdf	
		Purchase values (Euro/sqm)	N/A		
		Lease values (Euro/sqm)	 -Two family members: from €3.494 to €4.576 -Three family members: from €3.631 to €4.650 -Four family members: from €4.948 to €5.618 -Five family members: from €6.333 to €6.392 -Six family members: €6.793 	https://www.redomilano.i t/assets/pdf/AVVISO%20P UBBLICO-REDO.pdf	
Social manager	Type of social manager contract	N/A			
	Contract duration	N/A			
	Total employees	N/A			
	Management software	App Merezzate+	App Merezzate+		
	Vacancy index	100% allocated		https://www.redomilano.i t/	
	Community activities and integrated social management	Vegetable patch, common kitchen, manufacturing laboratory		https://www.idealista.it/n ews/speciali/reportage/20 22/04/08/158547-redo- merezzate	
	Property management activities	N/A			
	Facility management activities	N/A			

4.4.5. CONSIDERATIONS

Redo Merezzate is a functional housing and urban renovation project because it is already finished from a timeline perspective and a complete dwellings available occupation.

From the annual impact report of 2020 published by Redo, environmental social and governance (ESG) Redo Merezzate is a public



Fig. n.19: Logo Merezzate+ l – https://redomilano.it/, 2017

exploration lab that fulfills environmental objectives from the efficient use of natural resources with the platform implementation Merezzate+ that coordinates the living lab managed for A2A, Smart City and Politecnico di Milano.

Regarding the social objectives and the development of shared spaces, the social manager implementation and the development of projects like Community Mobility Sharing Hub as a strategy to manage the shared public electric transport and public spaces, and the civic crowdfunding from the cooperative Spaziopensiero for the construction of the nursery for all the families in the Rogoredo neighborhood are a representation of the commitment that exists on the part of the inhabitants and the support on the part of the municipality.

As the second reference for sustainable development, the Redo project is aligned with 6 of the 17 SDG goals:

- No poverty (1);
- Affordable and clean energy (7);
- Sustainable cities and communities (11);
- Responsible consumption and production (12);
- Climate action (13);
- Partnerships for goals (17).

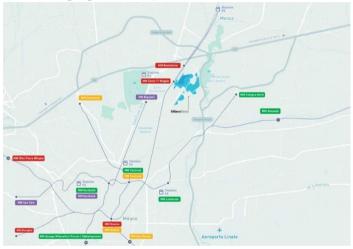
Until now, there has been a satisfactory result about this project, without recognizing the disagreements arriving from different groups of stakeholders during the process. However, to carry on an accurate assessment of the success of the project is necessary to study this project after a more extended period to understand if the community goals and the sense of belonging to the neighborhood are built between the habitants.

4.5. SESTO SAN GIOVANNI

4.5.1. CONTEXT ANALYSIS

The real estate market of the city of Sesto San Giovanni is very active and dynamic, certainly thanks to its proximity to Milan. The values recorded for both sales and rentals are significantly lower than those of Milan, but still reflect a rather high demand.

In particular, as regards residential properties for sale, in May 2022 an average of 2,505 (sqm was recorded, representing an increase of 10.11% compared to May 2021 (average value: 2,275 (sqm)). The month in which the lowest price was recorded was July 2020, when the average price was about 2,208 (m2, due to the drastic effects of the pandemic. On the other hand, regarding the rent, in the last month an average of 12.87 (sqm per month has been requested for residential properties for rent, which shows an increase of 7.25% compared to the previous year (average value: 12.00 (sqm per month). The lowest price requested in recent years was recorded in December 2021 (11.89 (sqm per month).



Another interesting parameter to look at in analyzing the city market is the building stock availability; Sesto San Giovanni offers than 40,000 less residential units. This means that is appropriate to assume that MilanoSesto residential project is becoming more and more essential, because it will be able to respond to a real demand from the community. It does not add superfluous housing but it creates new needed spaces.

Picture n.19: MilanoSesto and the northeast area of the Milan metropolitan area – https://www.milanosesto.it/it/, 2022

Sesto San Giovanni municipality has been working for years to offer its residents a wide variety of services. It is worthwhile to present below some examples of offered facilities, such as those concerning sports, health care and green spaces availability.

About sport and fitness, there are nearly 100 registered sports associations, such as 21 school gyms, 12 multipurpose sports centers, 4 swimming pools and an ice palace. Health and welfare provision is then fundamental. In Sesto San Giovanni the supply of both public and private services is quite rich: not only the hospital is provided, but also many other private and contracted diagnostic and medical centers. The new MilanoSesto project is actually intended to help in making the city a national hub for applied health research and it works to ensure a very high level of health facilities, supplementing and improving the already good situation.

Another very important topic is the one related to the presence and the availability of green spaces; the city provides its residents with a considerable number of parks and gardens (more than 70 urban parks). In this aspect too the new MilanoSesto project will

provide significant support in creating additional highly equipped green spaces where numerous functions will intersect to satisfy the final users.

Sesto San Giovanni offers excellent accessibility by all major means of transportation, both public and private. Rail, subway and highways easily connect the city with the airports in the Milan area. Linate can be reached in less than half an hour, while Malpensa and Orio al Serio are an hour away. The city of Sesto is also served by a subway line, with three existing stops (MM1 - Sesto Marelli; MM1 - Sesto Rondò; MM1 - Sesto FFSS) and by one line under construction to the north of the city. Sesto is also connected by six bus lines that link it to nearby cities, such as Cinisello



Fig. n.20: Render delle aree verdi di MilanoSesto – https://www.milanosesto.it/it/, 2022

Balsamo, Cologno Monzese and Monza. The FFSS station in Piazza 1° Maggio, which connects to the metro line stop, sees the daily passage of major regional rail lines.

The new project includes important aspects related to the issue of accessibility; in fact, work has begun on the new Sesto San Giovanni station, the project by Renzo Piano Building Workshop and Ottavio Di Blasi & Partners that will connect the historic part of the city with the new MilanoSesto area.



On the side, the map showing the strategic transformations of Sesto San Giovanni, updated to 2022 and downloaded from the municipality's website.

Important elements to be highlighted are the green connections (in green) and the urban axes of public space redevelopment (in yellow).

Picture n.21: Map of the strategic transformations of Sesto San Giovanni – https://sestosg.net/, 2022.

4.5.2. MILANO SESTO



Fig. 22: Edificio industriale nell'area ex Falck – https://www.milanosesto.it/it/, 2022

MilanoSesto is urban an redevelopment project located in the city of Sesto San Giovanni, in the north-east of the metropolitan area redevelopment of Milan. The project concerns an area which until the 1990s was occupied by the Falk steelworks and which remained empty and unused by the closure of the plants, so the project aims to revive spaces that have not been used in the last 30 years. It is one of the largest projects at European level, since it involves 1.5 million square meters, 3.5 billion euros of

total investment and will host more than 50,000 residents and users of the city. The complex project will combine several functions; it involves the construction of a center of health excellence called City of Health and Research, a new academic and hospital center of San Raffaele University and the construction of private spaces dedicated to housing units, commercial functions, offices, hotels and more (this second plot project is called Unione 0).

Undoubtedly, MilanoSesto has among its objectives the generation of social and economic value for the area of interest and its community. The public investment planned for the projects Union 0 and City of Health and Research amounts to \notin 450,000,000, while the private investment for the project Union 0 provides an additional \notin 500,000,000. Of this amount, 20,900,000 \notin has been allocated for the construction of public works for the benefit of the entire community¹³³.

But to fully understand a project you need to understand who the partners and stakeholders are. The project is being developed by Milanosesto S.p.A., a company that owns the areas and which plays the role of a project developer and contractor. Another important role is played by Hines, strategic consultant, development manager and investor for the development of the project. Also worth mentioning is the Prelios Group, which deals with the project and asset management. To conclude, The European House - Ambrosetti has supported Milanosesto and Hines in the elaboration and evaluation of the impacts of the intervention, trying in particular to understand the future effects related to the construction of the first two projects (Union 0 and City of Health and Research)¹³⁴. About timing, the construction sites, starting in early 2022, will be completed after 2034; in 2025 the first private lot (Union 0) and City of Health and Research will be completed and available to the community¹³⁵.

¹³³ Ivi.

¹³⁴ MilanoSesto. (2022). In https://www.milanosesto.it/it/

¹³⁵ Comune di Sesto San Giovanni. (2022, Gennaio 31). *Rigenerazione Urbana Aree ex Falck Unione Zero* - *Impatto economico e sociale su Sesto San Giovanni* 2022 -2025. Tratto da Comune di Sesto San Giovanni: https://sestosg.net/novita/notizie/rigenerazione-urbana-aree-ex-falck-unione-zero-impatto-economico-esociale-su-sesto-san-giovanni-2022-2025/

The idea behind the project is to create a functional mix to increase the vitality of the neighborhood and its attractiveness. Many different functions will be integrated into the intervention plan, so as to increase the flow of people who will use the area and optimize the design of the space.



Picture n.23: Render of the Città della Salute e della Ricerca project – https://www.milanosesto.it/it/, 2022

4.5.3. UNIONE 0: SOCIAL AND STUDENT HOUSING

One of the peculiarities that makes MilanoSesto so unique is that it is very complex and diverse; the overall project actually includes many sub-interventions. One of these is the already mentioned Union 0, an interesting project that covers an area of over 250,000 square meters and will offer housing, intended for both social housing and free market residences, offices, a student residence, hotel and commercial spaces.

There are many reasons why it was essential to include student buildings and council houses within such an innovative intervention. The motivation is intimately linked to the Milanese real estate market mentioned above. The goal is to create a real social infrastructure, capable of having a strong and positive impact on the community.

The housing situation today presents many critical problems, just think of the students; the availability of student housing is dramatically insufficient (30,000 beds are missing to bring the city in line with the European average). Thanks to MilanoSesto, there are about 700 beds for students from the universities of Bicocca and San Raffaele (about 7% of the area of the MilanoSesto project is used for student accommodation). The new student housing building not only offers living space, but also integrates many other functions and services, such as meeting spaces, gym and sports facilities, workshops, laundry, cinema, games room, study rooms and more¹³⁶.

The critical issues, however, concern not only young students, but a much wider range of the population. With regard to this social housing plan, the objective is to help the economic and social conditions of families and young families. The most disadvantaged group of the population concerns young people under 30, as young people were among the most affected by the negative consequences of the pandemic in terms of employment. In particular, the residential solutions of Milano Sesto compared to the same models of Milan, show that at the same price there is the availability of more spacious and quality

¹³⁶ Milanosesto (2022), op. cit.

housing. This means that the housing in the new project will cost between 39% and 52% less than the similar sized solutions in the city of Milan.

As mentioned in the introduction, a housing model that is becoming increasingly popular is the Built To Rent (BTS): an experience for residents that is not only "living" but includes many additional services, able to create a true feeling of community.

Thanks to the project, 285 affordable housing units will be made available. These spaces, which should be ready as early as 2024, will be aimed mainly at workers, health professionals, researchers, students, young families and young people under 30^{137} .

¹³⁷ The European House - Ambrosetti S.p.A. (2021), op. cit.

4.5.4. MAPPING AND ANALYSIS CHARTS OF THE MILANOSESTO PROJECT

		URBAN RENOVATION	SOURCES
Project identification	Project name	MilanoSesto	https://www.milanosesto.i t/it/
data	Localization	Sesto San Giovanni, northeast zone of the Milan metropolitan area	https://www.milanosesto.i t/it/
	Intervention area	1.5 million sqm	https://www.milanosesto.i t/it/
	Amount of investment	€3,5 billions (of which €450 mln invested by the public sector)	https://www.milanosesto.i t/it/
	Land reclamation costs	€570 millions	http://docplayer.it/222920 385-Gli-impatti-della- rigenerazione-urbana- delle-ex-aree-falck-e-la- creazione-di-valore-per-il- sistema-paese.html
	Project description	The regeneration project concerns an area that until the 1990s was occupied by the Falck steel mills and that remained empty and unused since the plants' closure. It is one of the largest projects at the European level and it will combine many different functions together.	https://www.milanosesto.i t/it/
Territorial framework	Accessibility	 Rail, subway, and highways easily connect the city with the major airports in the Milan area. Subway line, with three existing stops (MM1 - Sesto Marelli; MM1 - Sesto Rondò; MM1 - Sesto FFSS) and one under construction to the north of the city. Six bus lines that link Sesto to nearby cities; FFSS station in Piazza 1° Maggio 	https://www.milanosesto.i t/it/
	Pre-existing services	Decommissioned Falck steel mills	https://www.ilgiorno.it/cr onaca/sesto-bonifica-falck- 1.6892005
	Real estate market	Reference: ex Falck area, Sesto San Giovanni (Abitazioni civili normali) Sale range values: 1450 - 1950 €/sqm Rent range values: 4,8 - 6,9 €/sqm/month	https://www.immobiliare.i t
Stakeholders and partners	Masterplan architects	Norman+Foster	https://www.milanosesto.i t/it/
	Developer	Milanosesto SpA and Hines	https://www.milanosesto.i t/it/
	Land owner	MilanoSesto Spa	https://www.milanosesto.i t/it/
	Others	Project Valuation: The European House Ambrosetti Project Management: Prelios SGR Main architects and planners: Norman+Foster, Renzo Piano Building Workshop, Ottavio Di Blasi & Partners, Mario Cucinella Architects, LAND, Barreca & La Varra, Park Associati, Scandurra Studio Architettura, Antonio Citterio Patricia Viel (ACPV)	https://www.milanosesto.i t/it/ https://mam-e.it/milano- sesto-san-giovanni-i- progetti-per-le-ex-aree- falck/
Timeline	Public tender	2018	https://sestosg.net/la- rigenerazione-urbana-in- corso-delle-aree-ex-falck- rassegna-urbanistica- nazionale-4-aprile-2019/

	Land aquisition date and its acquisition cost	Unione 0 lot bought in October 2020 (€500 millions) Unione Nord lot bought in June 2021 (cost not available)	https://prelios.com/it/new s/milanosesto-accordo- con-hines-e-cale-street- acquisizione-e-sviluppo- del-lotto-unione-zero# https://www.ilgiorno.it/mi lano/cronaca/san-raffaele- falck-1.6512667
	Start date	2021	https://www.milanosesto.i t/it/
	Finish date	2034	https://www.milanosesto.i t/it/
	Current status	In progress	https://www.milanosesto.i t/it/
Functional	Public	Healthcare facilities	https://www.milanosesto.i
mix	functional mix	Research and university hub	t/it/
		Student housing	https://mam-e.it/milano-
	Private	Free market housing	sesto-san-giovanni-i- progetti-per-le-ex-aree-
	functional mix	Social housing	falck/
		Senior living	
		Retail shops	
		Hotel	
		Offices	

Project	Project name	CIAL HOUSING PROJECT Unione 0 - social and student housing	SOURCES https://sestosg.net/novita/notizie/aree-
identification data	Froject name		falck-approvati-progetti-nuovo-quartiere- unione-zero-e-parco-urbano-unione/
	Localization	Via Acciaierie area	https://sestosg.net/novita/notizie/aree- falck-approvati-progetti-nuovo-quartiere- unione-zero-e-parco-urbano-unione/
	Intervention area	250.000 sqm	https://sestosg.net/novita/notizie/aree- falck-approvati-progetti-nuovo-quartiere- unione-zero-e-parco-urbano-unione/
	Amount of investment	€ 375.000.000	https://sestosg.net/novita/notizie/aree- falck-approvati-progetti-nuovo-quartiere- unione-zero-e-parco-urbano-unione/
	Project description	Unione 0 project is developed on a surface of more than 250.000 sqm and it will offer housing facilities, both for social housing and free market residences, offices, a student housing residence, hotel, retail and green spaces. In particular, the focus of this second part is on student and social housing facilities. The "living" function takes a main role and it is here declined in: social housing, student housing, multifamily, senior living.	https://www.monitorimmobiliare.it/prese ata-l-analisi-d-impatto-del-progetto-di- recupero-aree-ex-falck- allegato_2021951752
Territorial framework	Accessibility	 Rail, subway, and highways easily connect the city with the major airports in the Milan area. Subway line, with three existing stops (MM1 - Sesto Marelli; MM1 - Sesto Rondò; MM1 - Sesto FFSS) and one under construction to the north of the city. Six bus lines that link Sesto to nearby cities; FFSS station in Piazza 1° Maggio 	https://www.milanosesto.it/it/
	Pre-existing services	Decommissioned Falck steel mills	https://www.ilgiorno.it/cronaca/sesto- bonifica-falck-1.6892005
	Real estate market	Ex Falk area (reference: Abitazioni civili normali) Sale values range: 1.450 – 1.950 €/sqm Rent values range: 4,8 - 6,9 €/sqm/month	https://www.immobiliare.it/
Stakeholders	Developer	Milanosesto SpA and Hines	https://www.milanosesto.it/it/
and partners	Land owner	MilanoSesto Spa	https://www.milanosesto.it/it/
	Social manager	N/A	
	Others	 -Architects selection and advisor: Hines -Project management: Prelios SGR -Masterplan architects: Norman + Foster -Architect (social housing project): Barreca & La Varra -Architect (student housing project): Park Associati -Architect (free housing project): Scandurra Studio Architettura -Executive architect: Artelia Italia, Jacobs Italia, SCE Project -Structural engineer: Studio Capè Ingegneria, MILAN Ingegneria, SCE Project -Facility engineer: 	https://www.milanosesto.it/it/ https://sestosg.net/novita/notizie/aree- falck-approvati-progetti-nuovo-quartiere- unione-zero-e-parco-urbano-unione/

Timeline	Public tender	2021		https://www.ilsole24ore.com/art/al-via- cantieri-milanosesto-2025-fatturato-sopra miliardo-AECu0D7	
	Land aquisition date	October 2020	(€500 millions)	https://prelios.com/it/news/milanosesto- accordo-con-hines-e-cale-street- acquisizione-e-sviluppo-del-lotto-unione- zero#	
	Start date	2022		https://www.milanosesto.it/it/	
	Finish date	2025		https://www.milanocittastato.it/grande- milano/il-progetto-di-unione-zero-si-svela alla-comunita-milanese/	
	Current status	In progress		https://www.milanosesto.it/it/	
Social mix and functional mix	Total residential area (sqm)	96.000 sqm (22.000 sqm: student housing + 27.000: conventioned + 47.000: free market housing)		http://docplayer.it/222920385-Gli-impatt della-rigenerazione-urbana-delle-ex-aree- falck-e-la-creazione-di-valore-per-il-sisten paese.html	
	Total non residential area (sqm)	68.000 sqm (53.000 sqm: offices + 15.000 sqm: hotel)		http://docplayer.it/222920385-Gli-impat della-rigenerazione-urbana-delle-ex-aree falck-e-la-creazione-di-valore-per-il-siste paese.html	
	Green area surface (sqm)	13 acres		https://www.milanosesto.it/it/	
	Common area surface (sqm)	N/A			
	Type of non residential spaces	Hotel, offices, green spaces, fitness facilities, cinema, aggregation spaces.		https://www.milanosesto.it/it/	
	Services	Aggregation spaces, gym facilities, sports activities, laboratories, laundry, cinema, game room, study rooms		https://www.milanosesto.it/it/	
	Free housing	Target group	Workers, health personnel, researchers, young families, under 30, seniors.	https://www.milanosesto.it/it/	
		Total squared meters	47.000 sqm	https://www.milanosesto.it/it/	
		Type of accomodati on	One, two, three, four-room apartments (481 total)	https://www.milanosesto.it/it/	
		Purchase values (Euro/sqm)	Not available yet	https://www.milanosesto.it/it/	
		Lease values (Euro/sqm)	Not available yet	https://www.milanosesto.it/it/	
	Ordinary conventioned housing	Target group	Workers, health personnel, researchers, young families, under 30, seniors.	https://www.milanosesto.it/it/	
		Total squared meters	27.000 sqm	https://www.immobiliare.it/ https://www.milanosesto.it/it/	
		Type of accomodati on	One, two, three, four-room apartments (285 total)	https://www.immobiliare.it/ https://www.milanosesto.it/it/	
		Purchase values (Euro/sqm)	Not available yet	https://www.immobiliare.it/ https://www.milanosesto.it/it/	
		Lease values (Euro/sqm)	Not available yet	https://www.milanosesto.it/it/	

Student housing	Target group	Students	https://www.milanosesto.it/it/
nousing	Total squared meters	22.000 sqm	https://www.immobiliare.it/ https://www.milanosesto.it/it/ http://docplayer.it/222920385-Gli-impatt della-rigenerazione-urbana-delle-ex-aree- falck-e-la-creazione-di-valore-per-il-sisten paese.html
	Type of accomodati on	705 beds	https://www.immobiliare.it/ https://www.milanosesto.it/it/ http://docplayer.it/222920385-Gli-impatt della-rigenerazione-urbana-delle-ex-aree- falck-e-la-creazione-di-valore-per-il-sisten paese.html
	Purchase values (Euro/sqm)	Not available yet	https://www.immobiliare.it/ https://www.milanosesto.it/it/ http://docplayer.it/222920385-Gli-impati della-rigenerazione-urbana-delle-ex-aree- falck-e-la-creazione-di-valore-per-il-sisten paese.html
	Lease values (Euro/sqm)	Not available yet	https://www.immobiliare.it/ https://www.milanosesto.it/it/ http://docplayer.it/222920385-Gli-impatt della-rigenerazione-urbana-delle-ex-aree- falck-e-la-creazione-di-valore-per-il-sister paese.html
HS - Lett. A - Agevolata	N/A		
HS - Lett. B - Canone moderato	N/A		
HS - Lett. C - Canone sociale	N/A		
Type of social manager contract	N/A	<u>.</u>	
Contract duration	N/A		
Total employees	N/A		
Management software	N/A		
Vacancy index	N/A		
Community activities and integrated social management	N/A		
Property management activities	N/A		
Facility management activities	N/A		

4.5.5. CONSIDERATIONS

The entire MilanoSesto area represents a long-term development project that through the intelligent use of technology will meet the highest international standards of sustainability, energy efficiency and quality of life.

Environmental, social and governance (ESG) criteria are a set of standards that are becoming increasingly important in the analysis of each project: one of MilanoSesto's objectives is precisely to meet these standards, becoming a European model in the field of urban regeneration. From an environmental point of view, it is highly sustainable in terms of construction processes, technical characteristics of buildings and emission performance. As for the social profile, the benefits include the construction of social housing and student housing and the construction of 130,000 square meters of urban park can become a real landmark for the community.

The third and final aspect that complements the sustainability profile concerns the level of governance. Some of the strategies adopted concern the protocols used for the protection of legality, safety and working conditions. Moreover, in order to ensure transparency, all subcontracts must be approved by the MilanoSesto organisation and about 70% of private works are allocated taking into account the technical aspects of quality and not only the principles of cost savings.

In any case, the ESG criteria are not the only parameters used to assess the sustainability of the project; Milano Sesto meets 8 of the 17 Sustainable Development Goals. The 9 objectives developed by the project are:

- Good health and well-being (3);
- Affordable and clean energy (7);
- Decent work and economic growth (8);
- Sustainable cities and communities (11);
- Responsible consumption and production (12);
- Climate action (13);
- Life on land (15);
- Partnership for the Goals (17).

4.6. SCALO GRECO-BREDA 4.6.1. CONTEXT ANALYSIS



Picture n.24: Aerial view of Scalo Greco-Breda – barrecaelavarra.it, 2020

The Greco Breda site is located in a strategic area in the north-east of Milan straddling Municipio 2 and Municipio 9 and at the Greco-Pirelli railway station, 6 minutes away from the hub of Porta Garibaldi. The airport is a valuable link between Precotto, a historic district for mixed use, full of services and activities, and Bicocca, a former industrial area characterized by a major urban renewal project conceived by architect Vittorio Gregotti in the 1990s. This includes the campus of the University of Milan, the Arcimboldi theatre and other cultural attractions, including the Pirelli Hangar Bicocca art centre and a multiplex cinema.

The presence of one of the busiest railway stations for suburban services in the direction

of Monza makes this site a hub of strategic importance in the metropolitan context. The redevelopment of the airport is an opportunity to reduce vehicle traffic and promote the use of sustainable transport modes, overcoming the railway barrier to allow better pedestrian and cycling links with the station and other destinations¹³⁸.

The creation of synergies with existing services, such as universities and cultural institutions, is a fundamental vocation to be considered for the development of the site. Affordable housing for students and temporary workers, and neighbourhood services for the local population could be integrated with light productive activities and generous public spaces and green areas. The latter could include the reorganization and expansion of the already existing informal urban gardens, within the network of green areas on a city scale¹³⁹.

¹³⁸ https://www.c40reinventingcities.org/en/professionals/winning-projects/scalo-greco-breda-1276.html

¹³⁹ https://www.fssistemiurbani.it/content/fssistemiurbani/it/scali-milano/milano/greco-breda.html



According to the Milan PGT urban services map. (PS_S01_Servizi_Esistenti) it can be noted that the area of Greco is subject to urban interventions, renewal highlighted in light purple. You can also notice the presence of sports infrastructure and areas dedicated education. to indicated respectively in blue and grayish.

Picture n.25: Milan PGT urban services map – https://ordinearchitetti.mi.it/it, 2022

4.6.2. SCALO GRECO-BREDA AND REINVENTING CITIES

With resolution n. 1983 of 10 November 2017, the City Council approved the participation in the first edition of the Reinventing Cities program, an initiative of the C40 Cities organization that addresses the urgent need for change in the way cities are designed and built in response to the climate emergency, inviting architects, urban planners, designers, developers, entrepreneurs and environmentalists to work together on proposals and compete for the unique opportunity to turn underused sites into a model for urban projects of the future. Several areas of the municipal territory have been banned for their alienation, including the former railway yard of Greco Breda (owned by Ferrovie dello Stato Italiane SpA, FS, and FS Sistemi Urbani SRL, FSSU), an area in which 96,3% of the population growth of the Municipality of Milan in the period 1999-2017 and expects almost 50% of growth until 2036. The Program Agreement has identified for the area a vocation linked to Social Housing (including university residences). For the building part, in fact, are expected at least 21 thousand square meters of affordable accommodation, especially for students, while 60% (37,313 square meters) of the surface will have to be used for greenery and public spaces.

The winning project, L'Innesto, will be developed by the Fondo Immobiliare di Lombardia managed by Redo Sgr. SpA - benefit company and designed by a team of international professionals: Barreca & La Varra, Arup, Stantec, Mobility In Chain, Ariatta, Starching, Borlini & Zanini¹⁴⁰.

It is the first district of Social Housing with zero emissions in Italy, with houses predominantly rented. Al clearly of the areas destined to the railway exercise, very more than 60% (threshold previewed from the agreement of the Scali Ferroviari della Città di

¹⁴⁰ AA.VV. (2022), Reinventare l'abitare e gli spazi urbani, C40 Cities, Milano.

Milano program) will be destined to green spaces, pedestrian paths and equipped to public use.

The total area of the area is 73,526 square meters including the instrumental areas intended for railway operation. The land area is equal to 62,189 sqm. The SLP (Gross Floor Area) provided for in the ADP (Program Agreement) is a total of 24,000 square meters, intended for social housing and, for a minimum of 5% and maximum 13%, for functions compatible and complementary to the residence. The project includes 21,000 square meters of social housing and 3,000 square meters of compatible functions, roughly divided as follows: 1,200 square meters for the Circular Economy District, 500 square meters for a Zero Waste Store, 1,200 square meters for the Community Food Hub, 100 sqm for various commercial activities¹⁴¹.

L'Innesto will operate a mending of the surrounding neighborhoods, on the one hand creating a quality pedestrian connection between Bicocca, Precotto and the University, connecting to the existing and planned railway underpasses, on the other, entering the green corridor that goes from Porta Nuova to the park of Monza, and from Martesana joins the North Agricultural Park.

There are three objectives for Scalo Greco Breda that characterize the offer:

- The first Housing Sociale Zero Carbon in Italy: the most innovative construction technologies and the most sustainable plant and management strategies have been selected in order to obtain - in a predefined time frame - a zero CO2 emissions balance. The goal is achieved in 30 years thanks to some strategies: a) Fourth generation district heating powered by renewable sources; b) Innovative building system; c) Bioremediation and urban forestry; d) Active mobility; c) Zero carbon fund aimed at reducing greenhouse gas emissions and voluntary carbon credits.
- 2. Responsible and resilient management of resources, spaces and communities in the long term: the long-term management horizon is based on a network of relationships and collaborations with managers, cooperatives and subjects strongly rooted in the territory. It is proposed the integrated management of the entire property development, from the project to the implementation up to an innovative and integrated management of the intervention over a period of 30 years, combining sustainable choices in design and construction with innovative tools for the management and use of buildings and for the enhancement of shared spaces.
- 3. Human Adaptive Zone, an agricultural-themed collaborative neighborhood. The agricultural heart of the area has been preserved and enhanced, flexible and multifunctional spaces have been designed to encourage relations between inhabitants, allowing to create a sense of belonging to the place facilitating the involvement of the entire neighborhood in the care of the area¹⁴².

¹⁴¹ Scalo Greco-Breda, in Comune di Milano – https://www.comune.milano.it/aree-tematiche/reinventingcities/prima-edizione/scalo-greco-breda

¹⁴² C40 Cities, L'Innesto: Rigenerazione urbana a Milano.

From a morphological point of view, the project wants to identify two types of green. On the one hand he draws a linear park on the path of the pedestrian Via Breda, which connects with the cycle paths to urban scale and defines the central spaces of the heart of the project, inviting users to enter the heart of the intervention from the main access points such as the entrances to the station east of the railway (existing and planned) which also represent a link with the Bicocca area, the Cascina in the North and the access to the Breda Street in the South (at the cycle underpass). The second type of green is the agricultural green contained in small areas, used as community gardens, which open outwards to indicate their public accessibility. These areas sew connections to a neighborhood staircase, reconnecting with the public gardens to the northeast.



Picture n.26: L'Innesto - green diaphgrams - https://www.acquaponica.blog/, 2020

The project proposes equipped greenery of 45,042 square meters, or 72% of the land area. The total is obtained by adding the park areas, the community garden, the vegetable gardens and the orchard (14,445 sqm), the Viale dei Gelsi and the central core with squares (6,600 sqm), the nursery with bike path west of the railway (12,190 sqm), the Cyclocross (5,720 sqm), areas for aquaponics and a set of other small areas for other activities (2,610 sqm), and finally the gardens of the Community Food Hub (3,480 sqm)¹⁴³.

The project promotes the idea of a natural agricultural park of Greco: on the route of the current Via Breda will be born Viale dei Gelsi, which together with the main square will

¹⁴³ Ivi.

constitute a green corridor to which will be added a community garden for residents, new horticultural spaces, and an orchard.

As regards the minimum equipment of public areas and equipment or the provision for public use, the ADP provides for a total budget of 24,000 square meters (calculated at 100% of the total SLP)and a minimum endowment of green areas equal to 60% of the territorial area, or 37,313 square meters¹⁴⁴.

4.6.3. L'INNESTO: SOCIAL HOUSING PROJECT

The new district will host about 400 new housing Social Housing (about 60% leased and about 40% on sale subsidized) and about 300 beds for students; great value is given to the concepts of community and inclusion, with the birth of a Human adaptive zone consisting of spaces and services for all as common kitchens, laboratories, the neighborhood concierge, a district of circular economy.

The SLP reserved for social housing is equal to a minimum of 21,000 square meters, of which 8,324 square meters for subsidized contract construction and/ or subsidized contract construction with a pact of future sale and cohabitation with shared services (cohousing); 10,676 sq m minimum for building for rent at moderate rent and/or agreed rent, at agreed rent, residences for university students, cohabitation with shared services (cohousing) of a social nature; 2,000 sq m minimum for building for rent at social rent, not substitutable by recourse to monetizations.

The project also includes a student residence building of 7,800 sq m with 300 beds. The City of Milan qualifies the residence for university students, with attached supplementary and support services, as a private equipment of general interest and therefore the intervention, qualified property and private management, will be contracted with the City of Milan and will be allocated - in accordance with the provisions of the Technical Standards for the Implementation of the Service Plan of the PGT - to be qualified as a "Service" of the category "Social Residential Housing (Edilizia Residenziale Sociale)"¹⁴⁵.

The residential intervention is oriented towards suitable housing solutions for different types of users young people, couples, the elderly, students. temporary workers, families, immigrant single-parent families, etc. - with a particular attention to the possibility of the evolution of the spaces of the house over time, in relation both to the changes of the families and to the needs dictated by the development



¹⁴⁴ Ivi.

¹⁴⁵ Comune di Milano (2 agosto 2021), Piano attuativo zona speciale Greco-Breda, Milano.

program. The area of Scalo Greco Breda is particularly exposed to the growth of youth population that in the coming years will invest the city. The choice to propose new beds for students of the nearby Bicocca University arises from several considerations: The public transport infrastructure in the area makes it particularly suitable for housing a residential structure facing the entire city and not only the Bicocca University. The expected need for Milan in the coming years exceeds the current and planned offer. In addition, the social mix is enriched by the presence of a university residence inhabited by Italian and foreign students, which will contribute to the richness of the project area and the sustainability of services¹⁴⁶.

L'Innesto provides 60% of the apartments for rent (50% two-room apartments and 40% three-room apartments), 40% for sale discounted (70% three-room apartments and 25% two-room apartments), but also a share of large shared accommodation to answer a large demand: Flat cluster with large shared apartments. There will be a guest house whose reception will act as a neighborhood concierge. There will also be residential services managed by third sector entities. The apartments will be made available to calm rentals that will have rental values between 70 €/sqm and 110 €/sqm and sales values equal to 2,200 €/sqm¹⁴⁷.

To meet the needs of more than one person, special typologies have been introduced to meet specific needs: clusterflat and social coresidenze. The Cluster-flat is a typological evolution of shared apartments. They consist, in general terms, of the aggregation of small units connected by a common space. These aggregations will consist of five or six nuclei of one or two bedrooms with bathrooms. The common space consists of an articulated sequence of connected spaces: kitchen-dining area, living room-tv, play area, study and work area, storage. The common space complements the private space that is minimal. The social residences are apartments that welcome an average of 6-10 people; they offer shared rooms and large spaces for group socialization: a large kitchen, a living room, outdoor spaces when possible. They will be affiliated with the social and health services aimed at specific categories and for variable periods of stay; the housing alongside an offer of services, including health, and a project of social accompaniment, curated by third sector subjects. The project includes a guest house and a student residence that will provide housing solutions for a total of 300 beds. The individual spaces will be enriched by the presence of shared spaces, such as living rooms, study rooms, common kitchens, a space for music and a gym. The temporary residence will be managed by In-Domus, a company that currently has three campuses, one of which will soon open near the project area (via Innovazione), reaching a total of 1,000 beds at affordable rates¹⁴⁸.

¹⁴⁶ Redo SGR (2019), L'Innesto. Fase 2, Documento 3, Relazione tecnico descrittiva.

¹⁴⁷ Ivi.

¹⁴⁸ Redo SRG, L'Innesto, https://innestomilano.it/

4.5.4. MAPPING AND ANALYSIS CHARTS OF THE L'INNESTO PROJECT

Project	Project name	L'Innesto	https://redosgr.it/innesto/
identification data	Localization	Scalo Greco Breda, Milan	https://redosgr.it/innesto
	Intervention area	73.526 sqm	https://redosgr.it/innesto
	Amount of	N/A	
	investment		
	Land reclamation	N/A	
	costs		
	Project description	L'Innesto, a project to redevelop the Milan Greco-Breda railway yard, is the first zero-carbon affordable housing district in Italy. Partly because of these features, the project won the 2019 international competition Reinventing Cities, the call for bids was launched by the City of Milan together with C40 for sustainable urban regeneration projects.	https://redosgr.it/innesto
Territorial framework	Accessibility	Greco-Pirelli train station	https://www.mic- hub.com/it/project/scalo- greco-breda-linnesto/
	Pre-existing	Greco-Pirelli train station, former Greco-Breda cargo station	https://www.mic-
	services		hub.com/it/project/scalo greco-breda-linnesto/
	Real estate market	Bicocca, Niguarda area (reference: Abitazioni civili normali) Sale values range: 2.340 – 2.700 €/sqm Rent values range: 7,17 - 8,25 €/sqm/month	https://www.immobiliare t
Stakeholders	Masterplan	Barreca & La Varra, Fondazione Housing Sociale, Ariatta,	https://redosgr.it/innesto
and partners	architects	Starching, CEAS	
	Developer	Fondo Immobiliare di Lombardia	https://redosgr.it/innesto
	Land owner	Gruppo FS Italiane	https://www.milanotoda
			it/zone/loreto/greco/scal -greco-lavori.html
	Others Public tender	 -Project manager: REDO SGR (FIL 1) -Asset manager: InvestiRE SGR -Engineers: Arup SRL -Infrastructure designer: MIC Mobility In Chain -Environmental experts: A2A, MM -Network managers: Politecnico di Milano, Politecnico di Torino, Cresme, Cariplo Factory, Intesa San Paolo Innovation Center -Partners: Stantec, Delta Ecopolis, In-Domus, Fondazione Social Venture Giordano dell'Amore, AIM, Fungo Box, Peverelli 	https://redosgr.it/innesto https://www.comune.mi no.it/documents/20126/ 34769683/Scalo+Graco+I eda+Componenti+chiave del+team.pdf/35226c32- cfd5-361b-47af- ab483bcf88a8?t=163093 103126
Timeline		The project won the Reinventing Cities competition in 2019 2019	https://redosgr.it/innesto
	Land aquisition date and its	€4,8 millions	
	acquisition cost		
	Start date	February 2021	https://www.milanotoda it/zone/loreto/greco/scal -greco-lavori.html
	Finish date	2025	https://www.01building.i smart-city/innesto-social- housing-emissioni-zero/
	Current status	In progress	https://redosgr.it/innesto
Functional	Public functional	Neighbourhood concierge	https://redosgr.it/innesto
mix	mix	Circular economy district	
		Community garden	

	Community Food Hub	
	Zero Waste Food Hub	
Private functional	Social Housing	
mix	Student Housing	
	Labs for students	
	Shared kitchens	

		IAL HOUSING PROJECT	SOURCES
Project identification	Project name	L'Innesto	https://redosgr.it/innest o/
data	Localization	Scalo Greco Breda, Milan	https://redosgr.it/innest o/
	Intervention area	73.526 sqm	https://redosgr.it/innest o/
	Amount of investment	N/A	
	Project description	L'Innesto, a project to redevelop the Milan Greco-Breda railway yard, is the first zero-carbon affordable housing district in Italy. Partly because of these features, the project won the 2019 international competition Reinventing Cities, the call for bids was launched by the City of Milan together with C40 for sustainable urban regeneration projects.	https://redosgr.it/innest o/
Territorial framework	Accessibility	Greco-Pirelli train station, pedestrian underpasses towards Bicocca and Precotto	https://www.mic- hub.com/it/project/scal o-greco-breda-linnesto/
	Pre-existing services	Greco-Pirelli train station	https://www.mic- hub.com/it/project/scal o-greco-breda-linnesto/
	Real estate market	Bicocca, Niguarda area (reference: Abitazioni civili normali) Sale values range: 2.340 – 2.700 €/sqm Rent values range: 7,17 - 8,25 €/sqm/month	http://www.immobiliare .it
Stakeholders and partners	Developer	Fondo Immobiliare di Lombardia	https://redosgr.it/innest o/
	Land owner	Gruppo FS Italiane	https://www.milanotod ay.it/zone/loreto/greco/ scalo-greco-lavori.html
	Social manager	Delta Ecopolis	https://innestomilano.it /category/senza- categoria/
	Others	Project manager: REDO SGR (Fil 1) Asset manager: InvestiRE SGR Engineers: Arup SRL Infrastructure designer: MIC Mobility In Chain Environmental experts: A2A, MM Network managers: Politecnico di Milano, Politecnico di Torino, Cresme, Cariplo Factory, Intesa San Paolo Innovation Center, Planet Smart City Partners: Stantec, In-Domus, Fondazione Social Venture Giordano dell'Amore, AIM, Fungo Box, Peverelli	https://redosgr.it/innest o/ https://www.comune.m lano.it/documents/2012 6/434769683/Scalo+Gra co+Breda+Componenti+ chiave+del+team.pdf/35 226c32-cfd5-361b-47af- ab483bcf88a8?t=163093 1103126
Timeline	Public tender	The project won the Reinventing Cities competition in 2019	https://redosgr.it/innest o/
	Land aquisition date	2019	https://redosgr.it/innest o/
	Start date	February 2021	https://www.milanotod ay.it/zone/loreto/greco/ scalo-greco-lavori.html
	Finish date	2025	https://www.01building. it/smart-city/innesto- social-housing- emissioni-zero/

	Current status	In progress	https://redosgr.it/innest o/	
Social mix and functional mix	Total residential area (sqm)	21.000 sqm	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf	
	Total non residential area (sqm)	3.000 sqm	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf	
	Green area surface (sqm)	37.313 sqm	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf	
	Common area surface (sqm)	4.600 sqm	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf	
	Type of non residential spaces	Commercial areas	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf	
	Services	Shared kitchens, l community garde food hub, Zero wa	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf	
	Free housing	N/A		
	Ordinary conventioned housing	N/A		
	HS - Lett. A - Agevolata	Target group	Students, people with disabilities, singles, households, elderly, temporary workers.	https://www.comune.mi lano.it/documents/2012 6/434769683/L%27INNE STO+Doc.+3+Relazione+ tecnica+%28IT%29.pdf
		Total squared meters	8.324 sqm	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf/
		Type of accomodation	Two, three-room apartments	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf
		Purchase values (Euro/sqm)	N/A	
		Lease values	N/A	
	HS - Lett. B - Canone moderato	Target group	Students, people with disabilities, singles, households, elderly, temporary workers.	https://www.comune.mi lano.it/documents/2012 6/434769683/L%27INNE STO+Doc.+3+Relazione+ tecnica+%28IT%29.pdf
		Total squared meters	10.676 sqm	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d ati+tecnici+di+progetto+ PA+Greco+Breda.pdf
		Type of accomodation	Cluster-flats (two, three, four-room apartments)	https://www.comune.mi lano.it/documents/2012 6/188244983/SCHEDA+d

			ati+tecnici+di+progett PA+Greco+Breda.pdf
	Purchase values (Euro/sqm)	From 2.200 €/sqm	https://www.comune. lano.it/documents/20 6/188244983/SCHEDA ati+tecnici+di+progett PA+Greco+Breda.pdf
	Lease values (Euro/sqm)	70 - 110 €/sqm	https://www.comune. lano.it/documents/20 6/188244983/SCHEDA ati+tecnici+di+progett PA+Greco+Breda.pdf
HS - Lett. C - Canone sociale	Target group	Students, people with disabilities, singles, households, elderly, temporary workers.	https://www.comune. lano.it/documents/20 6/434769683/L%27INI STO+Doc.+3+Relazione tecnica+%28IT%29.pdf
	Total squared meters	2.000 sqm	https://www.comune. lano.it/documents/20 6/188244983/SCHEDA ati+tecnici+di+progett PA+Greco+Breda.pdf
	Type of accomodation	Social residence	https://www.comune. lano.it/documents/20 6/188244983/SCHEDA ati+tecnici+di+progett PA+Greco+Breda.pdf
	Purchase values (Euro/sqm)	N/A	
	Lease values (Euro/sqm)	N/A	
Student Housing	Target group	Students	https://www.comune. lano.it/documents/20 6/188244983/SCHEDA ati+tecnici+di+progett PA+Greco+Breda.pdf
	Total squared meters	7.800 sqm	https://www.comune lano.it/documents/20 6/188244983/SCHEDA ati+tecnici+di+progett PA+Greco+Breda.pdf
	Type of accomodation	300 beds	https://www.comune lano.it/documents/20 6/188244983/SCHEDA ati+tecnici+di+progett PA+Greco+Breda.pdf
	Purchase values (Euro/sqm)	N/A	
	Lease values (Euro/sqm)	N/A	
Type of social manager contract	N/A		
Contract duration	N/A		
Total employees	N/A		
Management software	App Redo	https://redosgr.it/inne	
Vacancy index	N/A		
Community activities and integrated social management	Partecipative networking and shared economy activities https://innestomila		
Property management activities	N/A		

Social manager

Facility management	N/A	
activities		

4.5.5. CONSIDERATIONS

The Milanese area where L'Innesto will rise, straddling Greco and Bicocca, has had an agricultural heart over the centuries. Then industrial: at the railway station Breda came the raw material for the steelworks of Sesto San Giovanni. Today, the district, straddling City Hall 2 and 9, is the highest growth of the city: positive balance of 96.3% of inhabitants between 1999 and 2027 (Cresme data). By 2030, it is expected to increase by 50%. Young population, international.

L'Innesto also takes into account ESG objectives, focusing on achieving the following results:

- Goal 01. Site energy efficiency and clean energy supply. Reduced consumption (thermal insulation, VMC, DEC devices, maximization of natural light), Fourth generation district heating powered by renewable energy (solar thermal, energy recovery of urban waste)PV plant for self-consumption and the creation of a fund to decarbonize the city.
- Goal 02. Sustainable materials management, circular economy and waste. LCA design with materials with low environmental impact (biobased, recycled/recyclable, with digital passport), industrialization of the production process with strong waste reduction, possibility of reuse at the end of life and halving of CO 2 during the construction phase compared to Business As Usual (BAU), regeneration and reuse of excavation sites (bio and phytoremediation).
- Goal 03. Green mobility. Active and non-motorised mobility, creation of an intermodal node, integration of urban sharing systems, increase of electric charging points, reduction of parking equipment (based on specific studies of the generated demand), dedicated fleet of electric vehicles. Promotion of specific commercial products for the use of public transport (special agreements facilitations for residents through the creation of unified purchasing groups).
- Goal 04. Resilience and adaptation. Building a more resilient community through risk awareness and networking of environmental data (through the dedicated App)by encouraging collaborative capacities to develop an efficient decision-making approach, including in emergencies..
- Goal 05. New ecological services for the site and the surrounding environment. Promotion of ecosystem services through the development of the first Italian Zero Waste Store. On-site production of vegetables and fish through innovative systems (aquaponics), reuse of the wet fraction (compost) for the fertilization of urban gardens.
- Goal 06. Green growth and smart cities. Show room of outdoor innovation with a Circular Economy District that attracts innovative start-ups to develop smart urban solutions, support to innovative digital technology (BIM, interactive environments, sensors to measure performance, blockchain approaches, etc.).

- Goal 07. Sustainable water management. On-site reuse of rainwater for irrigation purposes and interception of rainwater in case of extreme events, by creating green roofs and rolling tanks. Reduce drinking water consumption through the use of smart meters and a program of education to the sustainable use of the resource.
- Goal 08. Biodiversity, re-vegetation and agriculture. Rich and varied landscape to increase biodiversity (permaculture, shielding infrastructure, cyclocross). Protection of the practice of vegetable gardens, integrated into urban design. Spaces dedicated to the experimentation of new forms of cultivation in the city, development of a nursery in a conception of a productive urban green (Edible landscape).
- Goal 09. Inclusive actions and community benefits. Subsidized housing, student residence, special residential types (cluster flat, co-living), residential services for people in difficulty managed by the third sector. Common spaces to support a Human Adaptive Zone, involving the local community. A twoyear accompaniment path for the community start-up to enable tenants and residents of the neighborhood to design common spaces. Team presence of the future community manager.
- Goal 10. Innovative architecture and urban design. An element of urban renewal that integrates and enhances the project area with the surrounding neighborhoods. Architecture with a human scale that at the same time guarantees variety and surprise in the use of spaces.

4.7. CRESCENZAGO 4.7.1. CONTEXT ANALYSIS



Picture n.28: Crescenzago Green Between – https://www.milanotoday.it/, 2021

Crescenzago is a district of Milan. part of the administrative division of Zone 2, crossed by the Naviglio Martesana canal and located northeast of the city center, to which it is connected by Line 2 of the subway and Line 56 of the buses. An autonomous municipality until 1923, Crescenzago houses several historic buildings, in particular a 12th century

abbey and several 18th century villas. It also has significant green areas, as part of the Lambro Park, as well as industrial archaeology features, especially the abandoned factory of Ovomaltina. The district is crossed by Via Padova and parallel to this, to the south, runs the Via Palmanova, an important radial road that is the stretch of urban penetration of the highway 11 Padana Superiore, which connects Milan (Piazzale Loreto) to Brescia and Venice. The adjacent district of Cascina Gobba is served by a junction of the ring road east of Milan.



Fig. n.29: Context - https://www.c40reinventingcities.org/, 2020

In the district there are two stations of the M2 line of the Milan subway, Crescenzago and Cascina Gobba; the latter station is interchange with the light rail (Metropolitana Automatica Leggera, MeLA) to and from the San Raffaele Hospital. There are also several bus lines, managed by ATM, that connect Crescenzago to the neighboring districts and the center of Milan.

Crescenzago is a neighborhood that can be alienating, almost a textbook example of how the construction of the last century has created places not on a human scale but where you can find a great diversity and cultural richness, with communities from all over the world and Italy. In the first half of the twentieth century the area was affected by an urban expansion, in fact, uncontrolled. The result is that during the boom years, starting in the mid-1950s and even earlier, concrete cubes were built near historic buildings for a working class that could no longer find space around the ring road¹⁴⁹.



Analyzing the map of the urban services of the PGT of Milan, it is possible to observe how the area subject to various urban is renewal interventions. You can also notice the presence of sports infrastructure and areas dedicated education. indicated to respectively in blue and gravish. Finally, the ochre colour indicates the areas destined for Social Housing, mainly concentrated near Parco Lambro.

Picture n.30: Milan PGT urban services map – https://ordinearchitetti.mi.it/it, 2022

4.7.2. CRESCENZAGO AND REINVENTING CITIES

As in 2019, in 2020 Milan participates again in the Reinventig Cities call, this time proposing, among others, the ERS Crescenzago area, for which it wins the project "Green Between Tessiture Urbane" presented by a multidisciplinary group led by Redo SGR benefit company and composed by the architects Camillo Botticini and Matteo Facchinelli from ARW for architectural design, AG&P for landscape design, the company Stantec S.p.A. as environmental experts and the Social Housing Foundation for the identity and social development of the future community of residents¹⁵⁰.

For the designers, Green Between will be a neighborhood designed to involve young people in a new idea of living. The new center of gravity of the project will be a hub of

¹⁴⁹ C40 Cities (2020), Crescenzago, Milano.

¹⁵⁰ Reiventing Cities: la nuova porta di Crescenzago va a Redo Sgr con lo studio ARW, AG&P, Stantac e Fondazione Housing sociale (6 maggio 2021), su Professione Architetto News https://www.professionearchitetto.it/news/notizie/28661/Reiventing-Cities-la-nuova-porta-di-Crescenzago-va-a-Redo-Sgr-con-lo-studio-ARW-AG

services dedicated to children between 15 and 24 years that bridge between school and work. It will be managed by a single manager and a team of partners that includes Avanzi, the SIR Consortium, InventoLab, Stantec and Milano Bicycle Coalition.

The targets will be students, young Neets, boys who enter and leave temporary jobs.

The sectors of address will be mainly digital and green that are estimated to involve 30% of workers in 2023 and on which Italian companies struggle to find young talents, especially in the North (Reports Excelsior Unioncamere and Greenitaly 2019)¹⁵¹.

The masterplan of Green Between will develop on an area of about 15 thousand square meters, currently occupied by a huge parking lot, a few steps from the subway, close to the headquarters of the publishing house RCS Mediagroup S.p.A. and a short distance from the San Raffaele Hospital and will fall into a predominantly residential context, where social housing buildings of the 60s alternate with other more recent construction.



Picture n.31: Functions and services - https://blog.urbanfile.org/, 2021

The heart of the Green Between project is to create a new green access door to the Lambro Park, and a project of Social Housing with high sustainability that ignites the district with new vitality and links it to all the main transformations planned in the north-eastern quadrant of Milan. Green Between is also proposed as a hub with widespread and multifunctional spaces at the foot of the buildings and can be integrated with each other: a bar/ restaurant, a coworking, a cohousing, the bike hub, the market square, the playground. Places of sociality, for a neighborhood no longer suspended, but inhabited and lived. The hub will also be an e-learning platform offered at Crescenzago/Cimiano high schools for distance teaching, in blended and interactive mode. Gamification

¹⁵¹ https://redosgr.it/green-between/

methodologies will also be applied through the Redo App to encourage involvement in the study. The trainers of the hub will work with the mentors of the local businesses (RCS, Sony, Coop, Adecco, Credito Valtellinese, S. Raffaele) to accompany young people on business trips. The commercial activities of the new district will also be involved. The support of companies will help to identify talents; to strengthen soft skills; to train for sustainability; to create new services on the territory, of which young people are creators and creators. The participation of residents in the governance of the hub operator will transform potential customers/users into co-planning and co-production entities. The involvement of local economic actors will allow to leverage on their knowledge of the strengths and weaknesses of the context¹⁵².

The square, which will become a place of sociality and meeting for all the inhabitants with spaces dedicated to young people, develops from the stop of the M2: from its underpass i twill be possible to arrive at a large area equipped as a playground theatrical by the presence of green stands and staircases, after which you will reach the market square, the heart of the new district. A tree-lined embankment placed between the subway tracks and the square will ensure the mitigation of the acoustic impact generated by the passage of trains.

The pedestrian path, which will follow the existing axis of Via Cazzaniga and create a new green axis of entrance to the Lambro Park, will place as a force of the path embrace me going to mark, improve and secure the link between the park and the two underpasses of Via Palmanova, both the one that from the Crescenzago metro connects with the Martesana and the Adriano district through the ancient village of Crescenzago, is the one at the height of Via Palmanova 213, along the Martesana along Via Padova. The new district aims to become the center of a smooth mobility network, a real bike hub for inhabitants and users of the AbbracciaMI route, providing services such as bike rental and a cyclo-office, as well as charging stations for electric cars. At least 35% of the area will be green with the planting of hundreds of trees at the junction with the Lambro park tripling the current green area, 800 square meters will be dedicated to vegetable gardens and orchards and 66% of the total pavement will be permeable¹⁵³.

4.7.3. GREEN BETWEEN: SOCIAL HOUSING PROJECT

As foreseen by the call, the Green between project will transform an anonymous and underused parking area into an ecological social housing district. There will be 360 residential units, 2/3 of which will be rented at a fixed rent for young people and families, with an active ground floor characterized by areas for public and commercial life at the service of the community, with a view to the city to 15 minutes. The space to public destination of the new settlement will develop from the centrality of a large square

¹⁵² Reinventing cities. A Crescenzago la nuova porta d'accesso al Parco Lambro: social housing, verde e ciclabili (5 maggio 2021), Comune di Milano - https://www.comune.milano.it/-/reinventing-cities.-a-crescenzago-la-nuova-porta-d-accesso-al-parco-lambro-social-housing-verde-e-ciclabili
¹⁵² Ivi.

overlooking the metro station of Crescenzago and a green pedestrian boulevard that will lead from the station to Lambro Park.

Sustainability is at the center of every design choice also with regard to the building: the energy consumption of the new residential complex will be minimized thanks to the use of renewable resources of local production (heat pumps powered by renewable energy also through the use of photovoltaic panels), while the emissions of greenhouse gases will be neutralized through the adoption of solutions and commitments of mitigation and compensation. The project aims to achieve carbon neutrality and includes the construction of buildings that will improve the standards for nZEB (Nearly Zero Energy Building). As required by the call, great attention is given to the community dimension of the neighborhood: through the app Redo residents can access information on the services offered, regulate the use of shared equipment and common areas and digitally monitor the impact of emissions into the atmosphere of their daily activities. The social aspect of the project looks above all to present and future generations. In the initial stages of planning the spaces and services to be realized, the team made use of the contribution of the large community of students from Crescenzago, who were involved together with other actors¹⁵⁴.

¹⁵⁴ A Crescenzago la nuova porta d'accesso al Parco Lambro: social housing, verde e ciclabili (2021), MondoMilano.it - https://www.mondomilano.it/info/crescenzago-progetto-riqualificazione-socialhousing-verde-ciclabili

4.7.4. MAPPING AND ANALYSIS CHARTS OF THE GREEN BETWEEN PROJECT

		URBAN RENOVATION	SOURCES
Project identification	Project name	Green Between Tessiture Urbane	https://redosgr.it/green- between/
data	Localization	Crescenzago area, Milan	https://redosgr.it/green- between/
	Intervention area	24.000 sqm	https://redosgr.it/green- between/
	Amount of investment	€ 60 millions	https://www.ilgiorno.it/milano/c ronaca/il-nuovo-volto-di- crescenzago-1.6327765
	Land reclamation costs	N/A	
	Project description	Green Between is the urban regeneration project for the Crescenzago area of Milan that won the second edition of Reinventing Cities, the international competition for sustainable urban regeneration launched by the City of Milan together with C40. Green Between Tessiture Urbane is the new gateway to Lambro Park, an affordable housing project that brings new life to the Crescenzago neighborhood and reconnects it with all the main transformations expected in that area of Milan. It is a project that reactivates and enhances green infrastructures, dissolves local mobility nodes, and stimulates a new social interactions thanks to innovative and green proximity services. It is a "first home" for young people, a protected place for families, and, thanks to its lower prices, it promotes equity, inclusion, collaboration among residents and well-being for all citizens, mitigating the processes of urban gentrification. The project, which aims to be Zero Carbon, transforms the former Crescenzago parking lot area, now underutilized, into a neighborhood full of services, activities and housing solutions for young people.	https://redosgr.it/green- between/
Territorial framework	Accessibility	Crescenzago and Cascina Gobba M2 Metro stations	https://redosgr.it/green- between/
	Pre-existing services	The area contains a parking lot, now underutilized	https://redosgr.it/green- between/
	Real estate market	Cimiano, Crescenzago, Adriano area (reference: Abitazioni civili normali) Sale values range: 2194 - 2675 €/sqm Rent values range: 7,08 - 8,25 €/sqm/month	https://www.immobiliare.it/
Stakeholders and partners	Masterplan architects	ARW Studio	https://redosgr.it/green- between/
	Developer	REDO SGR SpA	https://redosgr.it/green- between/
	Land owner	Gruppo FS Italiane	https://redosgr.it/green- between/
	Others	 -Project manager: REDO SGR (Fil 1) - Environmental experts: Stanec, AG&P Greenscape -Partners: Fondazione Housing Sociale, E.ON, ènostra, Consorzio Poliedra, MIC – Mobility In Chain, GaiaGo, GET – Prof. Marco Filippi, Dipartimento di Energia, Politecnico di Milano – Prof. Motta, In-Domus, Planet Smart City, Cresme Ricerche, InVento Innovation Lab impresa 	https://redosgr.it/green- between/

		sociale, Consorzio SIR – Solidarietà in Rete – Soc. Coop. Sociale, Avanzi	
Timeline	Public tender	The project won the Reinventing Cities competition in 2020	https://redosgr.it/green- between/
	Land aquisition date and its acquisition cost	2020	https://redosgr.it/green- between/
	Start date	December 2021	https://redosgr.it/green- between/
	Finish date	N/A	
	Current status	In progress	https://redosgr.it/green- between/
Functional mix	Public	Coworking spaces	https://redosgr.it/green-
	functional	Bar and restaurant	between/
	mix	Bike Hub	
		Market square	
		Playground	
		Mobility hub	
		Medical centre	
	Private	Social Housing	
	functional	Student Housing	
	mix	Cohousing	

Ductort	Durt at a sure	SOCIAL HOUSING PROJECT	SOURCES	
Project identification	Project name	Green Between Tessiture Urbane	https://redosgr.it/green- between/ https://redosgr.it/green-	
data	Localization	Crescenzago area, Milan	between/	
	Intervention area	24.000 sqm	https://redosgr.it/green- between/	
	Amount of investment	€ 60 millions	https://www.ilgiorno.it/milan /cronaca/il-nuovo-volto-di- crescenzago-1.6327766	
	Project description	Green Between is the urban regeneration project for the Crescenzago area of Milan that won the second edition of Reinventing Cities, the international competition for sustainable urban regeneration launched by the City of Milan together with C40. Green Between Tessiture Urbane is the new gateway to Lambro Park, an affordable housing project that brings new life to the Crescenzago neighborhood and reconnects it with all the main transformations expected in that area of Milan. It is a 'project that reactivates and enhances green infrastructures, dissolves local mobility nodes, and stimulates a new social interactions thanks to innovative and green proximity services. It is a "first home" for young people, a protected place for families, and, thanks to its lower prices, it promotes equity, inclusion, collaboration among residents and well-being for all citizens, mitigating the processes of urban gentrification. The project, which aims to be Zero Carbon, transforms the former Crescenzago parking lot area, now underutilized, into a neighborhood full of services, activities and housing solutions for young people.	https://redosgr.it/green- between/	
Territorial framework	Accessibility	Crescenzago and Cascina Gobba M2 Metro stations	https://redosgr.it/green- between/	
jiamenen	Pre-existing services	The area contains a parking lot, now underutilized	https://redosgr.it/green- between/	
	Real estate market	Cimiano, Crescenzago, Adriano area (reference: Abitazioni civili normali) Sale values range: 2194 - 2675 €/sqm Rent values range: 7,08 - 8,25 €/sqm/month	https://www.immobiliare.it/	
Stakeholders and partners	Developer	REDO SGR SpA	https://redosgr.it/green- between/	
	Land owner	Gruppo FS Italiane	https://redosgr.it/green- between/	
	Social manager	Fondazione Housing Sociale	https://redosgr.it/green- between/	
	Others	 -Project manager: REDO SGR (Fil 1) -Environmental experts: Stanec, AG&P Greenscape -Partners: Fondazione Housing Sociale, E.ON, ènostra, Consorzio Poliedra, MIC – Mobility In Chain, GaiaGo, GET – Prof. Marco Filippi, Dipartimento di Energia, Politecnico di Milano – Prof. Motta, In-Domus, Planet Smart City, Cresme Ricerche, InVento Innovation Lab impresa sociale, Consorzio SIR – Solidarietà in Rete – Soc. Coop. Sociale, Avanzi 	https://redosgr.it/green- between/	
Timeline	Public tender	The project won the Reinventing Cities competition in 2020	https://redosgr.it/green- between/	
	Land aquisition date	N/A		
	Start date	December 2021	https://redosgr.it/green- between/	
	Finish date	N/A		

	Current status	In progress		https://redosgr.it/green- between/
Social mix and functional mix	Total residential area (sqm)	23.116 sqm		https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
	Total non residential area (sqm)	1.889 sqm		https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
	Green area surface (sqm)	5.400 sqm		https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
	Common area surface (sqm)	4.913 sqm		https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
	Type of non residential spaces	Commercial areas, Human Adaptive Zone		https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
	Services	hub, market s	aces, bars and restaurants, bike hub, mobility quare, common playground, medical center	https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
	Free housing	Target group Total squared meters	Students, young workers, temporary workers, singles and households 7.000 sqm	https://redosgr.it/green- between/ https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
		Type of accomodati on	Two, three, four-room apartments (available as atelier apartments, cluster-flats and co-residences)	https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
		Purchase values (Euro/sqm)	2.950 €/sqm	https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
		Lease values (Euro/sqm)	-	
	Ordinary conventioned housing	N/A		
	HS - Lett. A - Agevolata	N/A		
	HS - Lett. B - Canone moderato	Target group Total	Students, young workers, temporary workers, singles and households 14,900 sqm	https://redosgr.it/green- between/ https://www.comune.milano.it
		squared meters		/documents/20126/43476969 8/Crescenzago+- +GREEN+BETWEEN+Relazione+ ITA.pdf
		Type of accomodati on	Two, three, four-room apartments (available as atelier apartments, cluster-flats and co-residences)	https://www.comune.milano.it /documents/20126/43476969 8/Crescenzago+-

				+GREEN+BETWEEN+Relazione+ ITA.pdf
		Purchase values (Euro/sqm)	-	
		Lease values (Euro/sqm)	75 €/sqm	
	HS - Lett. C - Canone sociale	N/A		
Social manager	Type of social manager contract	N/A		
	Contract duration	N/A		
	Total employees	N/A		
	Management software	App Redo		https://redosgr.it/green- between/
	Vacancy index	N/A		
	Community activities and integrated social management	N/A		
	Property management activities	N/A		
	Facility management activities	N/A		

4.7.5. CONSIDERATIONS

The project promoted the development of social housing with services and mixed use in the area of Crescenzago, Milan, using public space and the community aggregator of the local market as key activities for social development and the enhancement of design. The climatic challenges adopted to define the guidelines of the Reinventing Cities competition are used in the project to shape the morphology of architectural intervention. The La Main Ouverte project recalls the open hand and the space of the square as a trust environment where social interaction is promoted and supported to create a strong sense of belonging and community. The sustainability aspect plays a key role in the design choices, the three pillars of environmental protection, affordability and social progress are all strongly included in the design and strategies for carbon-zero intervention. The cooperation between built environment and natural environment achieves the goal of proposing a zero carbon settlement with a CO_2 absorption buffer, which can be seen as a contribution to the city beyond the housing settlement and boundaries. The calculation model developed and tested in previous C40 competitions has been adopted to outline the energy needs and environmental impacts related to the project by defining a robust methodology to organize a new zero carbon development, while the social aspects are strengthened and implemented. Energy efficiency measures, material choices, renewable energy production, Water saving and green systems are interconnected to organize a scalable and replicable structured systemic approach in renewal interventions that are improving our cities and abandoned areas in need of an advanced paradigm shift. Sustainability and the zero carbon target are now part of the architectural quality that is no longer defined only by a refined design and morphology, but includes the principles of the SDG (Sustainable Development Goals), specifically:

- Affordable and clean energy (7);
- Sustainable cities and communities (11);
- Responsible consumption and production (12);
- Climate action (13);
- Partnerships for goals (17).

4.8. CENNI DI CAMBIAMENTO 4.8.1. CONTEXT ANALYSIS



Picture n.32: Cenni di Cambiamento - https://www.triplewood.eu/, 2019

Cenni di Cambiamento is the largest intervention of residential architecture in Class A with self-supporting wooden structure, made in Europe. Inaugurated in 2013, it won the Environment-Friendly Innovation Award in the same year, in 2014 it was awarded at the Gyproc Trophy Italy in Saint Gobain and in 2015 it was nominated for the Mies Van der Rohe Prize.

The project area is located on the edge of a densely built and inhabited sector, consisting of different urban contexts: traditional urban fabric, open building and large singlefunctional urban complexes. The project area is surrounded by settlements with strong functional connotations some of which, by extension and use, represent real fences: the ATM depot, the sports fields of the Unione Sportiva La Triestina, the Caserma Santa Barbara, the former Campo di Marte and, in a sense, the Fleming housing district. The elements that in this sense are more binding for the development of the area are: the Santa Barbara barracks and the former Campo di Marte, whose future is still uncertain. The transformation of these areas has been the subject of discussion for many years without, however, there are today certain predictions. The area is bordered by Via Novara, an important radial axis that approaching the suburbs gradually changes in character: from urban road becomes a fast-flowing link to the highways. In the section affected by the intervention, the Via Novara already has a suburban character, although necessarily promiscuous as it also serves as a distribution of flows inside the neighborhood. This aspect is not without its problems because, in fact, the street represents an element of strong discontinuity between one part of the neighborhood and the other. The area has good vehicular accessibility by public and private transport: the frequency of public transport connections is satisfactory, and includes the metro lines M1 and M5 (San Siro Stadium) and bus lines 49, 64, 78, 80 and 98¹⁵⁵.

The neighborhood has no particular problems: populated mainly by the middle class, place of residence rather than work, is relatively exposed to phenomena marked by discomfort and petty crime and is generally characterized by a good quality of the built.

However, the whole area is apparently without a real reference point for the daily and social life of the inhabitants. Despite the important provision of services, there are no places of aggregation and the area is characterized by a tranquility bordering on anonymity. In addition, the green areas of the neighborhood in the area are small or not accessible while they are close and easily accessible some of the large urban parks: Parco delle Cave, Parco Trenno and Boscoincittà¹⁵⁶.



Picture n.33: Milan PGT urban services map – https://ordinearchitetti.mi.it/it, 2022

According to the map of the urban services of the PGT in Milan, in the there are several area areas dedicated to health (turquoise). sport (blue), safety and civil protection (blue), education (gravish)in addition to Public Housing (brown). It is worth mentioning the San Carlo Borromeo Hospital, which provides an important urban and national health service, and the Don Gnocchi Foundation. offering a highly specialized service in the field of disability and in particular in the field of rehabilitation and research.

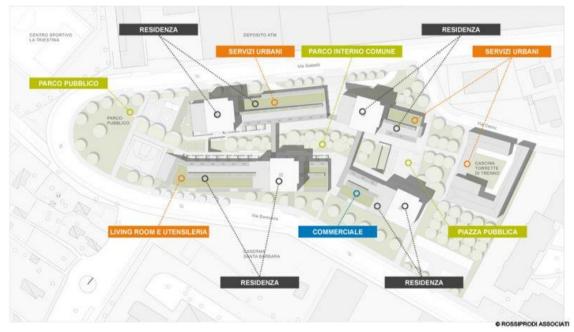
4.8.2. CENNI DI CAMBIAMENTO: THE PROJECT

The project, carried out by Rossi Prodi di Firenze studio (identified following an international design competition promoted by Polaris Investment Italia sgr with Fondazione Housing Sociale as programmer) has been accomplished thanks to a virtuous collaboration between public and private actors. With a total cost of 21.7 million euros, was financed by the Fondo Immobiliare di Lombardia (in which they invest Fondazione Cariplo, Regione Lombardia, Cassa Depositi e Prestiti, Intesa San Paolo, Banca Popolare di Milano, Assicurazioni Generali, Cassa Italiana Geometri, Prelios, Telecom Italia, in addition to the Investment Fondo Investimenti per l'Abitare, managed by CDP Investimenti sgr) managed by Polaris Real Estate SGR SpA. The concept plan and the social project were taken care of by the Social Housing Foundation, while the social

¹⁵⁵ Abitare Sociale 1, Documento preliminare per la progettazione.

¹⁵⁶ Ivi.

manager was identified as the Housing Cooperative DAR=casa. The City of Milan, finally, in addition to having dealt with the allocation of housing, has sold the rights to the area for 90 years, given the social importance of the project. This allowed to reduce the cost of construction, dropped from 1500 to 1,100 euros per square meter. In this way Cenni has become financially sustainable also for the company that oversaw the operation.



Picture n. 34: Services - Rossiprodi Associati, 2015

In the project area there is the currently inhabitated Torrette di Trenno cascina, owned by the municipality, for which it is planned the renovation and the destination of the property to local and urban services. The design proposal must therefore provide that the renovation of the farm takes place in a second phase, compared to the construction of residential buildings, without excluding the possibility of giving the property, at a later time, a significant role. The project area is divided into two parts, a larger one, of 11,951 square meters, in which the buildings will be located, and a smaller one, of 5,090 square meters, to be used for infrastructure and public spaces, for a total of 17,041 square meters, of which 8,500 sqm will be allocated to public space¹⁵⁷.

The construction system of the building, 4 towers of 9 floors, is made of wooden panels cross-laminated, a preferred solution both for ecological reasons-environmental both for the technical potential that allow the construction of multi-storey buildings with high performance in terms of structural safety and housing comfort. The value of the flexibility proposed in the distribution of the interior spaces of the accommodation and guaranteed by the same construction system, allows a customization of the environment of the house according to a participatory mode. The peculiarities of the envelope also allow the

¹⁵⁷ Ivi.

construction of a building in energy class A in order to achieve savings in the management of buildings.

The project also pays particular attention to environmental sustainability and compatibility with the surrounding environment. It is made with an innovative system of supporting structures in wood - a material chosen for ecological and environmental reasons - of fir and larch coming from sustainable Austrian forests, so much so that it has been defined "the IKEA model of construction". Thanks to innovative plant and construction technologies, it is able to guarantee high performance in terms of structural safety and living comfort. Living in a class A certainly means saving, but above all it means not contributing to the waste of energy resources¹⁵⁸.

4.8.3. THE SOCIAL AND HOUSING CONTEXT

What most characterizes Cenni's project is the character of experimentality and a mix of living and functional. There is in fact a housing mix consisting of 122 apartments at a fixed rent, with an agreement with a future sale, moderate and social housing families with very different incomes. Some of these accommodations have been rented or sold through a Fondazione Cariplo call to third sector entities that host temporary residency projects with different targets of fragility. In addition to the park, there are 5 apartments dedicated to temporary residency in the Foyer that host young students or new workers between 18 and 30 years. The presence of families with different incomes has created concrete opportunities for exchange and mutual help. The presence of temporary residencies with vulnerability targets find in a context of social housing relational opportunities that are supportive in the paths of autonomy¹⁵⁹.

In addition to the mix of housing, there is also the functional mix: inside the complex there are 6 commercial units, 3 spaces for local urban services and the Cascina Torrette. The allocation of two local urban services took place at the same time as the allocation of housing. Specifically, II Grafo, today SIR, and Azione Solidale entered already in 2014, opening a multifunctional space with gym, playroom for children and adolescents and kitchen and day center for people with disabilities. The Oplat dairy in Saman has also been open since 2014, with bars and small refreshments, and as a type B cooperative, it has included workers who leave social support schemes.

In 2016 was published a notice for commercial spaces - trade on demand - Cenni (also promoted by FHS and Invest SGR) who wanted to urge those merchants who were interested in starting a business by committing to build a network of coordination and exchange between traders and a pact of trust with the inhabitants. The award-winning shopkeepers who have gradually opened their businesses are an ice cream parlor - gastronomy, an herbal shop, an organic shop, an art therapy service and an artistic workshop and a children's library. In June 2016 it was awarded to Mare Culturale Urbano, a social cultural enterprise, the Cascina Torrette, which houses a restaurant, bar, rehearsal

¹⁵⁸ Abitare Sociale1, Documento Integrativo: indicazioni e contenuti progettuali

¹⁵⁹ https://cennidicambiamento.it/

rooms, workshops and theater performances, artistic and cultural events. In support of the "commerce on demand" project was formed the neighborhood group "Via Cenni e Dintorni" with the intent to promote the activities of the territory, create connections and synergies and support the neighborhood trade.

The objective of Cenni di Cambiamento is the creation of an animated and safe socioresidential context. For this a series of services will be offered, some for the residence or the neighborhood, others open to the neighborhood. It starts from the integrative services to the dwelling, that is spaces, premises and equipment destined in prevailing way to the new residents who will be able to use them for organizing common activities. The activities will be self-managed directly by the inhabitants after having completed guided paths of participatory planning that have the purpose of satisfying their needs, interests and desires. In this way the residents themselves will become the main protagonists in the conduct of their own living and social life. Among the various services, we think of cineforum, hobby room, communal laundry, a time bank condominium, a children's playroom, community events and situations of conviviality (lunches, social dinners, birthday parties)¹⁶⁰.

There are also local and urban services provided by associations, cooperatives or social enterprises (day-time services for children, adolescents and families, meeting rooms with catering, artistic and craft workshops, spaces for cultural events, recreational activities and aggregation). These services will be open to the district, of which they will become a hub, and will contribute to the strengthening of the social fabric.

Finally, commercial services: small craft production activities or social enterprises, which will be placed in spaces at the foot of buildings; the established activities will be consistent with the project concept and will maintain the characteristics of sustainability and search for new ways of living the urban context.

All services and activities, both those managed by the future inhabitants and those open to the neighborhood, will be placed in spaces placed at the foot of the buildings. In this way the inner court will animate residents and citizens who can meet, relate to each other and enjoy the many services and commercial activities. The heart of the project is the inner courtyard, which will become a small park, also open to citizens, including playgrounds, rest areas and pergolas. A public space that will become a place of relationship between new tenants and the inhabitants of the surrounding neighborhood, responding to a need perceived on a city scale¹⁶¹.

¹⁶⁰ Ivi.

¹⁶¹ Cenni di Cambiamento! In https://abitaresociale.net

4.8.4. MAPPING AND ANALYSIS CHARTS OF THE CENNI DI CAMBIAMENTO PROJECT

		URBAN RENOVATION	SOURCES
Project identification	Project name	Cenni di Cambiamento	https://cennidicambiamento. it/
data	Localization	Via Giuseppe Gabetti 15, Milan	https://cennidicambiamento. it/
	Intervention area	22.000 sqm	https://www.triplewood.eu/i t/progetti/cenni-di- cambiamento_it
	Amount of investment	€ 18.500.000	http://www.dedweb.it/prog etti/cenni-di-cambiamento/
	Land reclamation costs	N/A	
	Project description	Cenni di Cambiamento is one of the largest residential projects in Europe made of wood, a technologically advanced, safe and "clean" construction material. Cenni's goal is to build a community, in which we actively collaborate in the management of the activities of the neighborhood and common areas.	https://cennidicambiamento. it
Territorial framework	Accessibility	M1 and M5 subway lines; surface public lines No. 49, 64, 78, 80, 98.	https://moovitapp.com/inde x/it/mezzi_pubblici- Cenni_di_Cambiamento- Milano_e_Lombardia- site_18726104-223
	Pre-existing services	ATM depot, La Triestina Sport Union, Santa Barbara military barracks	https://cennidicambiamento. it
	Real estate	Real Estate Market:	https://www.immobiliare.it/
	market	San Siro, Trenno area (reference: Abitazioni civili normali) Sale values range: 2000 - 2600 €/sqm Rent values range: 7 - 9,50 €/sqm/month	
Stakeholders and partners	Masterplan architects	ARW Studio	https://redosgr.it/green- between/
	Developer	REDO SGR SpA	https://cennidicambiamento. it
	Land owner	N/A	
	Others	 -Fund management company: Investire Immobiliare SGR -Main investors: Fondazione Cariplo, Regione Lombardia, Cassa Depositi e Prestiti, Intesa Sanpaolo, Banca Popolare di Milano, Assicurazioni Generali, Cassa Italiana Geometri, Prelios, Telecom Italia, Fondo Investimenti per l'Abitare -Architect: Fabrizio Rossi Prodi (Rossiprodi Associati S.r.L.), Borlini & Zanini SA -Social and technical advisor: Fondazione Housing Sociale -Public partner: Municipality of Milan 	https://cennidicambiamento. it https://www.promolegno.co m/fabbricalegno/fabbricaleg no-12018documetazione-e- approfondimenti/modulo- i/complesso-residenziale- cenni-di-cambiamentoa- milano
Timeline	Public tender	2008	https://cennidicambiamento. it
	Land aquisition date and its acquisition cost	Free concession by the Municipality of Milan in 2008	https://cennidicambiamento. it
	Start date	2009	https://cennidicambiamento. it
	Finish date	2013	https://cennidicambiamento. it

	Current status	Completed	https://cennidicambiamento. it
Functional	Public	Mare Culturale Urbano cultural space	https://cennidicambiamento.
mix	functional mix	Common garden	it
	Private	Social Housing	
	functional mix	Neighbourhood commerce centres	

		SOCIAL HOUSING PROJECT	SOURCES
Project	Project name	Cenni di Cambiamento	https://cennidicambiamento.it/
identification	Localization	Via Giuseppe Gabetti 15, Milan	https://cennidicambiamento.it/
data	Intervention area	17.041 sqm	https://www.fhs.it/wp- content/uploads/2016/03/DPP.p df
	Amount of investment	€ 15.000.000	https://www.fhs.it/wp- content/uploads/2016/03/DPP.p df
	Project description	Cenni di Cambiamento is one of the largest residential projects in Europe made of wood, a technologically advanced, safe and "clean" construction material. Cenni's goal is to build a community, in which we actively collaborate in the management of the activities of the neighborhood and common areas.	https://cennidicambiamento.it/
Territorial framework	Accessibility	M1 and M5 subway lines; surface public lines No. 49, 64, 78, 80, 98.	https://moovitapp.com/index/it/ mezzi_pubblici- Cenni_di_Cambiamento- Milano_e_Lombardia- site_18726104-223
	Pre-existing services	ATM depot, La Triestina Sport Union, Santa Barbara military barracks	https://cennidicambiamento.it/
	Real estate market	Real Estate Market: San Siro, Trenno area (reference: Abitazioni civili normali) Sale values range: 2000 - 2600 €/sqm Rent values range: 7 - 9,50 €/sqm/month	https://www.immobiliare.it/
Stakeholders	Developer	REDO SGR S.p.A.	https://cennidicambiamento.it/
and partners	Land owner	N/A	
	Social manager	KServices	https://cennidicambiamento.it/
	Others	-Fund management company: Investire Immobiliare SGR -Main investors: Fondazione Cariplo, Regione Lombardia, Cassa Depositi e Prestiti, Intesa Sanpaolo, Banca Popolare di Milano, Assicurazioni Generali, Cassa Italiana Geometri, Prelios, Telecom Italia, Fondo Investimenti per l'Abitare -Architect: Fabrizio Rossi Prodi (Rossiprodi Associati S.r.L.), Borlini & Zanini SA -Social and technical advisor: Fondazione Housing Sociale -Public partner: Municipality of Milan	https://cennidicambiamento.it/ https://www.promolegno.com/f abbricalegno/fabbricalegno- 12018documetazione-e- approfondimenti/modulo- i/complesso-residenziale-cenni- di-cambiamentoa-milano
Timeline	Public tender	2008	https://cennidicambiamento.it/
	Land aquisition date	Free concession by the Municipality of Milan in 2008	https://cennidicambiamento.it/
	Start date	2009	https://cennidicambiamento.it/
	Finish date	2013	https://cennidicambiamento.it/
	Current status	Completed	https://cennidicambiamento.it/

Junctional mix residential area (sgm) N/A content/uploads/2016 df Green area surface (sgm) 1.000 sgm https://www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel abbricalegon/fabbrical 12018/acumetaione- approfondiment/.mag //www.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrww.promel //wrwww.promel //wrww.promel //wrww.promel //wrwww.promel //wrww.pro					
area (sqm) N/A Total non N/A area (sqm) https://www.promole abbricalegon/fabbrical sporofon/fabbrical sporofon/fabbr	Social mix and functional mix		8.550 sqm		https://www.fhs.it/wp- content/uploads/2016/03/DPP.p df
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		Canone sociale	-	workers, singles and households	https://cennidicambiamento.it/
squared meters			squared	N/A	
Type of Two, three, four-room apartments https://cennidicambia accomodati on			accomodati	Two, three, four-room apartments	https://cennidicambiamento.it/

		Purchase values (Euro/sqm)	-	
		Lease values	From 250 to 500€	https://www.immobiliare.it/new s/social-housing-cosa-e-anche-3- euro-al-mq-per-una-casa-in- affitto-102517/
Social manager	Type of social manager contract	N/A		
	Contract duration	N/A		
	Total employees	N/A		
	Management software	N/A		
	Vacancy index	No available a	partments at the moment	https://cennidicambiamento.it/
	Community activities and integrated social management	association of	neighbourhood mediation, support to the inhabitants OG15 established to promote the vities of the community within the many s of Cenni.	https://www.fhs.it/wp- content/uploads/2016/03/DPP.p df
	Property management activities	reference for coordination of	stration and property management. Point of tenants and for the of community activities. Arrears management, management, accommodation and management.	https://www.fhs.it/wp- content/uploads/2016/03/DPP.p df
	Facility management activities		conflicts on maintenance issues, accompanying es of difficulties.	https://www.fhs.it/wp- content/uploads/2016/03/DPP.p df

4.8.5. CONSIDERATIONS

Cenni di Cambiamento arises as a project that promotes a new culture of living through the use of cutting-edge construction technologies, an innovative complex of Social Housing that has as its main objective the enhancement of social relations, placing itself as a real place of relationship between itself and the surrounding neighborhood, otherwise lacking a center of reference and aggregation. Here residents have the opportunity to start neighbourhood trade activities, and are also offered guidance services and training moments to accompany young people towards personal and professional autonomy. The residents themselves play a major role within Cenni: in September 2014 the Gabetti Workshop Association 15 was established with the aim of promoting the activities and collaborative services promoted by the inhabitants themselves, based on the desire to improve the integration, well-being and happiness of its members and the community of Cenni. In particular, the association aims to promote the participation of all in activities, events, initiatives, moments of aggregation, sharing ideas, means and experiences.

Another important element of this project is the great attention to construction sustainability, obtained through the use of structural components made of wood with less impact on the environment in terms of indirect greenhouse gas emissions than traditional concrete.

For this reason, Cenni di Cambiamento respects 7 of the 17 SDG objectives:

- Good health and well-being (3);
- Affordable and clean energy (7);
- Decent work and economic growth (8);
- Sustainable cities and communities (11);
- Responsible consumption and production (12);
- Life on land (15);
- Partnerships for goals (17).

4.9. VIA SARPI - BRAMANTE 4.9.1. CONTEXT ANALYSIS



Picture n.35: Sarpi-Bramante corner – https://blog.urbanfile.org/, 2022

Via Paolo Sarpi is a road in Milan that extends for about 1 km in a westerly direction, starting from Porta Volta. It is the central and fundamental axis on which, starting from the first decades of the twentieth century, a strong presence of Chinese immigrants has developed, so much so that the entire area between Procaccini, Montello and Canonica streets is called Chinatown of Milan. In fact, although today in Milan live about 27,000 Chinese people, in Chinatown do not represent the majority of residents.

The historical vocation to trade in the area (formerly the "Borgo degli Ortlani" before becoming "headquarters of the Chinese" during fascism and then Chinatown), combined with the overcrowding of Chinese workshops -housing the neighborhood and proximity to the city center, made rent prices soar, so that many of the Chinese in Milan live between Niguarda, Bicocca and Comasina, and Chinatown remains firmly in the hands of the Italians.

Between 2010 and 2011 the entire Via Sarpi was the subject of a deep urban redevelopment, with the pavement of the road for its entire length, which was transformed into an elegant pedestrian road suitable for bicycles, adorned with flower beds and trees. Along the way there are two bike service stations, from which you can pick up bicycles if you have a subscription. It is a shopping street, where there are also contemporary art workshops and many bars and restaurants¹⁶².

The Sarpi district of Milan is just on the border of the ZTL north west of Piazza Duomo, but still inside the City Hall 1, a few steps from the Sforzesco Castle and the Sempione Park. The district is developed in length with smaller secondary streets that open along the sides. In front of it there is the new glass pyramid building, the new headquarters of Feltrinelli and nearby you can easily reach Brera, the Arco della Pace in Sempione and the Isola district.

It is an area well served by public transport and nearby, in addition to surface transport, there are also the metro stops M2 Moscova and M5 Monumentale.

¹⁶² https://www.bikemi.com/it/mappa-stazioni.aspx



Picture n.36: Milan PGT urban services map – https://ordinearchitetti.mi.it/it, 2022

Analyzing the map PS S01_Servizi_Esistenti of the PGT of Milan is also observable as, outside the commercial field, the area is poor in services. In the immediate vicinity there are several areas (marked in violet) affected by measures in itinere approved and adopted.

Via Sarpi is unique. Its history played a central role in the internationalization of the city since the beginning of the twentieth century. In this street there is a Milanese essence, the extreme density, the capillary presence of the shops, the street section where different flows coexist, the anonymous and current character of the architecture of the

nineteenth and twentieth century, that Sarpi has miraculously safeguarded even in the face of the fact that it has been the scene of incredible innovations: the presence of trade and craftsmanship ethnically connotated, the pedestrianization of recent years and the maintenance of a character of historic living¹⁶³.

On 21 October 2022, a social and urban redevelopment project was presented that will lead to the construction of 200 new apartments in the Sarpi district, thanks to the activity of the Fund Ca' Granda participated by the IRCCS Fondazione Ca' Granda Ospedale Maggiore Policlinico di Milano, by Fondo Investire per l'Abitare (FIA - Gruppo Cassa Depositi e Prestiti, CDP), by Fondazione Cariplo and managed by InvestiRE SGR (Banca Finnat Group), which manages and enhances the properties donated to the Fund by the Policlinico di Milano.

The regeneration project, which involves a total investment of over 40 million euros, concerns a historic residential complex (built by Eng. Antonio Bestaglia between 1906 and 1909) located between Via Sarpi, Bramante and Niccolini and will lead to the construction of 200 new apartments for long-term rental and social housing, responding to the growing housing needs of the Lombard capital¹⁶⁴.

¹⁶³ http://www.vivisarpi.it/wb/pages/lassociazione.php

¹⁶⁴ https://www.fondazionecariplo.it/it/news/servizi/via-sarpi-bramante-niccolini-un-nuovo-socialhousing.html

4.9.2. THE PROJECT

The Sarpi-Bramante project aims to redevelop urban buildings in the historic Sarpi district, where the market prices of housing are constantly rising. The Sarpi project of the Ca' Granda Fund aims to maintain the authenticity of the area and a sociodemographic balance through the granting of housing units at a calmed rent. The intervention of total renewal Picture n.37: The buildings subject to intervention of the block between the streets Sarpi, Bramante and Niccolini, tends to



https://blog.urbanfile.org/, 2022

outline a new future perspective while maintaining the salient features. First, the extreme density, typical of the Milanese villages but more pronounced than elsewhere in Via Sarpi. Secondly, the variety of housing, which has seen, among the Milanese villages, Sarpi as an element of "resistance" with gentrification processes that, although there have been, have not changed the general character of the neighborhood. Thirdly, the strong integration with commerce which, in this case, is even more driven by the presence of common and commercial spaces.



Picture n. 38: The existing facades on Via Sarpi, Niccolini and Bramante will be maintained https://blog.urbanfile.org/, 2022

As previously mentioned, the project involves the construction of about 200 apartments, which by the will of the Cà Granda Real Estate Fund will be in social housing: the PGT, in fact, had not intended for this purpose. The architectural project consists in the maintenance of the existing facade on Sarpi, Niccolini the streets and demolition Bramante, the and reconstruction in silhouette of the buildings on the road with the recovery of the attics, and the redefinition of the courtyards internal through the

demolition of the three buildings present that are replaced by two completely new buildings perpendicular to Via Sarpi¹⁶⁵.

The three new resulting courts (Corte Sarpi, Corte Niccolini, Corte Bramante) thus constitute the open space of the block, the basis of its openness and relationship with the city, and have different characteristics: if Corte Sarpi is open to the public (with a bar with terrace, spaces for makers lab and social manager), Corte Niccolini and Corte

¹⁶⁵ https://www.fondazionecariplo.it/it/news/servizi/via-sarpi-bramante-niccolini-un-nuovo-socialhousing.html



Fig. n.39: Current state of one of the inner courtyards – https://blog.urbanfile.org/, 2022

Bramante have a more domestic character, are essentially dedicated to condominiums and services dedicated to them. This difference in the public and collective character of the courts is a significant reinterpretation of the character of the Milanese courtvards. often built in series. often characterized by a gradual "opening" to the outside. Towards the street, instead, the characteristic commercial character of the neighborhood is preserved through local shops and a

medium sales area. The apartments will be served by underground parking on two floors¹⁶⁶.



Picture n.39: Render of one of the inner courtyards – http://barrecaelavarra.it/, 2018

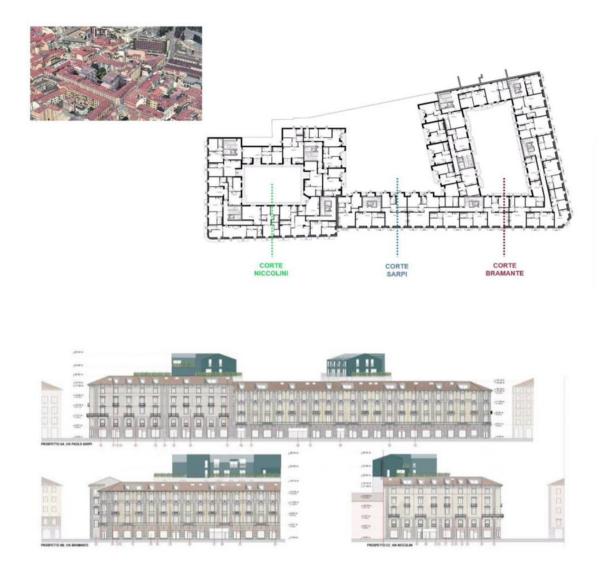
The regeneration project, which will start at the beginning of 2023 and whose works will end in the first quarter of 2026, will be curated by architects Barreca & La Varra and will return to the city 10 thousand square meters of regenerated residential area and another 3 thousand square meters of commercial space. The buildings involved will meet the most advanced criteria of sustainability and energy efficiency and functional. while maintaining the historic facade of the nineteenth century and thus preserving the typical aspects of the urban context of reference.

The initiative also pays great attention to the social fabric: in the ancient common areas will be built three new courts, destined to become centers of aggregation accessible both by residents and the entire neighborhood. The social project of uses the skills of the social manager Kservice and the support of the Social Housing Foundation Technical Advisor¹⁶⁷.

The internal courts will be redefined and the three new resulting courts (Corte Sarpi, Corte Niccolini, Corte Bramante) will then constitute the open space of the block, the basis of its opening and relationship with the city.

¹⁶⁶ http://barrecaelavarra.it/progetti/housing-sociale-sarpi-bramante/

¹⁶⁷ https://bebeez.it/real-estate-2/



Picture n.41: Plans, elevations and sections - https://blog.urbanfile.org/, 2022

In the renovated building complex there will also be the first Ronald House in Milan, dedicated to the hospitality of families with hospitalized children, and promoted by the Ronald McDonald Children's Foundation¹⁶⁸.

The initiative also pays great attention to the social fabric: in the ancient common areas will be built three new courts, destined to become centers of aggregation accessible both by residents and the entire neighborhood. The social project of relies on the skills of the KServices social manager and the support of the Social Housing Foundation technical advisor.

 $[\]label{eq:https://www.fondazionecariplo.it/it/news/servizi/via-sarpi-bramante-niccolini-un-nuovo-social-housing.html$

To carry out the project, 40 families were moved to a building not far away, which had already been completely renovated. A successful operation also from the point of view of communication and cooperation that has not led to any dispute with the shareholders¹⁶⁹.

¹⁶⁹ https://bebeez.it/real-estate-2/

4.9.3. MAPPING AND ANALYSIS CHARTS OF THE SARPI-BRAMANTE PROJECT

		URBAN RENOVATION	SOURCES
Project identification	Project name	Housing Sociale Sarpi - Bramante	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
data	Localization	via Paolo Sarpi 14-16-20, via Bramante 33, Milan	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Intervention area	5.454 sqm	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Amount of investment	€ 40.000.000	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Land reclamation costs	N/A	
	Project description	The total renovation of the block between Sarpi, Bramante and Niccolini streets involves the construction of about 200 apartments in social housing: the architectural project consists in the maintenance of the existing facade on Sarpi, Niccolini and Bramante streets, the demolition and reconstruction in silhouette of the buildings on the street with the recovery of the attics, and the redefinition of the internal courtyards through the demolition of the three buildings present that are replaced by two completely new buildings perpendicular to Sarpi street.	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
Territorial framework	Accessibility	M2 and M5 subway lines; surface public lines No. 62, 91, 92.	https://moovitapp.com/index/it/ mezzi_pubblici-Via_Paolo_Sarpi- Milano_e_Lombardia- site_32024864-223
	Pre-existing services	Commercial activities	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Real estate market	Real Estate Market: Cenisio, Sarpi, Isola area (reference: Abitazioni civili normali) Sale values range: 2,984 - 11,125 €/sqm Rent values range: 8.50 - 39.50 €/sqm/month	https://www.immobiliare.it/
Stakeholders and partners	Masterplan architects	Barreca & La Varra	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Developer	Investire SGR SpA	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Land owner	Immobiliare Ca' Granda	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Others	 -Fund management company: Investire SGR SpA -Main investors: Fondazione Cariplo, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico di Milano, Fondo Investimenti per l'Abitare, Fondazione per l'Infanzia Ronald MacDonald -Architect: Mpartner SRL -Social and technical advisor: Fondazione Housing Sociale -Public partner: Municipality of Milan 	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/ https://bebeez.it/real-estate-2/ https://www.fondazionecariplo.it /it/news/servizi/via-sarpi- bramante-niccolini-un-nuovo- social-housing.html
Timeline	Public tender	Not yet assigned	http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/
	Land aquisition date and its acquisition cost	Philanthropic donation of the nineteenth century to the Ospedale Maggiore in Milan	http://www.fondazionecariplo.it

	Start date	2023	https://bebeez.it/real-estate-2/	
	Finish date	2026	https://bebeez.it/real-estate-2/	
	Current status	Not yet started	https://bebeez.it/real-estate-2/ http://barrecaelavarra.it/progetti /housing-sociale-sarpi-bramante/	
Functional	Public	Bar and commercial spaces		
mix	functional mix	Makers labs		
	Private	Casa Ronald per l'Infanzia		
	functional mix	Social Housing		

.	.	SOURCES	
Project identification data	Project name	Housing Sociale Sarpi - Bramante	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Localization	via Paolo Sarpi 14-16-20, via Bramante 33, Milan	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Intervention area	5.454 sqm	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Amount of investment	€ 40.000.000	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Project description	The total renovation of the block between Sarpi, Bramante and Niccolini streets involves the construction of about 200 apartments in social housing: the architectural project consists in the maintenance of the existing facade on Sarpi, Niccolini and Bramante streets, the demolition and reconstruction in silhouette of the buildings on the street with the recovery of the attics, and the redefinition of the internal courtyards through the demolition of the three buildings present that are replaced by two completely new buildings perpendicular to Sarpi street.	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
Territorial framework	Accessibility	M2 and M5 subway lines; surface public lines No. 62, 91, 92.	https://moovitapp.com/index it/mezzi_pubblici- Via_Paolo_Sarpi- Milano_e_Lombardia- site_32024864-223
	Pre-existing services	Commercial activities	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Real estate market	Real Estate Market: Cenisio, Sarpi, Isola area (reference: Abitazioni civili normali) Sale values range: 2,984 - 11,125 €/sqm Rent values range: 8.50 - 39.50 €/sqm/month	https://www.immobiliare.it/
Stakeholders and partners	Developer	Investire SGR SpA	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Land owner	Immobiliare Ca' Granda	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Social manager	KServices	https://bebeez.it/real-estate- 2/
	Others	 -Fund management company: Investire SGR SpA -Main investors: Fondazione Cariplo, Fondazione IRCCS Ca' Granda Ospedale Maggiore Policlinico di Milano, Fondo Investimenti per l'Abitare, Fondazione per l'Infanzia Ronald MacDonald -Architect: Mpartner SRL -Social and technical advisor: Fondazione Housing Sociale -Public partner: Municipality of Milan 	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/ https://bebeez.it/real-estate- 2/ https://www.fondazionecarip o.it/it/news/servizi/via-sarpi- bramante-niccolini-un-nuovo- social-housing.html
Timeline	Public tender	Not yet assigned	http://barrecaelavarra.it/prog tti/housing-sociale-sarpi- bramante/
	Land aquisition date	Philanthropic donation of the nineteenth century to the Ospedale Maggiore in Milan	https://www.fondazionecarip o.it/
	Start date	2023	https://bebeez.it/real-estate- 2/

	Finish date	2026		https://bebeez.it/real-estate-
	Current status	Not yet started		2/ https://bebeez.it/real-estate- 2/
Social mix and functional mix	Total residential area (sqm)	10.000 sqm		http://barrecaelavarra.it/proge tti/housing-sociale-sarpi- bramante/
	Total non residential area (sqm)	3.000 sqm		http://barrecaelavarra.it/proge tti/housing-sociale-sarpi- bramante/
	Green area surface (sqm)	1.864 sqm		http://barrecaelavarra.it/proge tti/housing-sociale-sarpi- bramante/
	Common area surface (sqm)	1.864 sqm		http://barrecaelavarra.it/proge tti/housing-sociale-sarpi- bramante/
	Type of non residential spaces	Commercial activ	<i>i</i> ities	http://barrecaelavarra.it/proge tti/housing-sociale-sarpi- bramante/
	Services	Commercial activities, Casa Ronald per l'Infanzia		http://barrecaelavarra.it/proge tti/housing-sociale-sarpi- bramante/
	Free housing Ordinary conventione d housing	N/A N/A		
	HS - Lett. A - Agevolata	N/A		
	HS - Lett. B - Canone moderato	Not yet available		https://blog.fondocagranda.it/ housing-sociale/social- housing-milano/
	HS - Lett. C - Canone sociale	N/A		
Social manager	Type of social manager contract	N/A		
	Contract duration	N/A		
	Total employees	N/A		
	Managemen t software	N/A		
	Vacancy index Community	N/A N/A		
	activities and integrated social management	N/A		
	Property management activities	N/A		
	Facility management activities	N/A		

4.9.4. CONSIDERATIONS

Sarpi-Bramante is a project submitted only recently and whose construction work has not yet been contracted, so there are, at present, many elements to thoroughly evaluate the project from the constructive point of view, in particular with regard to the materials that will be used and the type of technological systems planned, and therefore on environmental sustainability.

For now we can only give positive reviews about the location of the area that is in a semicentral area of Milan and not, as for the largest projects of Social housing, in peripheral areas of the city. Moreover, the choice to keep the facades of the buildings unchanged will allow not to upset the historical context of the district but the recovery and especially "opening" interventions of the current inner courtyards will carry out an inclusive action of residents and greater communication and interchange with the rest of the city. This action will also be reinforced by the presence of the first Ronald House in Milan, dedicated to the hospitality of families with hospitalized children.

As mentioned above, to carry out the project, it was necessary to move 40 families who were staying in the buildings subject to regeneration. This operation was carried out without uprooting the inhabitants from their neighbourhood thanks to the possibility of making this transfer in a building a short distance, already fully renovated; Therefore, it is considered to be able to give a positive opinion also on the management of this problem.

Finally, it can be said that Sarpi-Bramante complies with 4 of the 17 SDG objectives:

- Good health and well-being (3);
- Decent work and economic growth (8);
- Sustainable cities and communities (11);
- Partnerships for goals (17).

4.10. VIA ZOIA 4.10.1. CONTEXT ANALYSIS



Picture n.42: Inner yard - prassicoop.it, 2015

The context in which the intervention takes place is characterized by the presence of large urban areas that have developed since the late sixties mainly consisting of isolated building on lot, radically different from that detectable in the nearby center of ancient formation of Quarto Cagnino. Zoia is a suburban neighborhood. Specifically, via Fratelli Zoia is located in Quarto Cagnino, once a rural village now part of Milan. It

is connected to the center by a historic metropolitan terminus, Bisceglie, and a more recent one, San Siro; Parco Trenno and Parco Cave mark the border with the irrigated countryside of the South Park, which here extends its northernmost foothills.

In Quarto Cagnino, the city is composed mainly of voids. Except for the small and cozy gut that a stretch of the same Via Zoia draws through a handful of old houses, the neighborhood was built as a sum of isolated fragments of late-modernist city (see in this regard the impressive bars of the GESCAL district of Via Karl Marx) transformed into incubators of hardship and social insecurity¹⁷⁰.

In 2008, the cooperatives Edificatrice Ferruccio Degradi and Solidarnosc of the Consorzio Cooperative Lavoratori respond to the municipal call for the "8 Areas for social housing" and start the experience of Zoia, that wants to radically question this shared perception. The architects Vincenzo Gaglio, Luca Mangoni, Luigi Pilastro and Coprat designed three residential buildings (with ninety dwellings in total, divided into properties, leases at agreed rates and social rent) that delimit a private court for public use and above all the new square of the Cooperation. An undoubtedly risky choice, given that the Italian suburbs are rich in metaphysical spaces colonized by weeds, a legacy of some betrayed promise of urban regeneration. The Zoia team, for the cooperative Solidarnosc (leader of the intervention), wants to avert the danger of the urban desert while building the material elements of the project and its "story", or rather its many stories, that converge online on Zoiablog. During the entire project process, the blog not only follows and documents the activities of cooperatives, architects, the construction company and the involvement of members, but also takes care of mapping the social and cultural wealth

¹⁷⁰ R. Schena, Borghi salvati: QUARTO CAGNINO, su ilcielosumilano.it.

already existing in the neighborhood, making them react with the social accompaniment plan of ZOC - Zoia Officine Creative¹⁷¹.





According to the map PS S01_Servizi_Esistenti of the PGT of Milan, the area is affected by a substantial presence of Public Housing (marked in ocher), as well as several areas dedicated to education (grayish), health (blue) and sport (blue).

Pictures n.43, 44. Aerial view of via Zoia and Milan PGT urban services map – https://blog.urbanfile.org/, 2018; https://ordinearchitetti.mi.it/it, 2022

4.10.2. THE PROJECT

In the project, the lot has been designed as a permeable, passable area, where private spaces and public spaces coexist to install functions that are of service to both residents and other users. The open space to the north first intended for the market square and parking, has been redefined confirming the only commercial function for a day a week, but also providing an alternative use for other days (public events, outdoor exhibitions, activities related to the incubators for creative young people, designed and built, that overlook this space).

The project of Via Fratelli Zoia is part of the projects launched within the "announcement of the 8 areas" promoted by the City of Milan in recent years, whose objective is to promote the implementation of housing projects at social rent, moderate and contracted and/or in use enjoyment. The area on which the complex stands, formed in part by a

¹⁷¹ Naboni F., Verona F. (2012), *Osservando il quartiere - L'abitare popolare e le relazioni di vicinato*, su *abitare.it*, 6 marzo 2012.

square on which the weekly market was held, is located in the Quarto Cagnino district, near San Siro.

The project, which occupies an area of about 7,200 square meters, saw the construction of three orthogonal slats and placed to partially close an internal space, while beyond the buildings is created a parking lot, equipped to re-brand the market. The new housing will then be offered partly for rent at social rent, partly for a contracted rent and the remaining for free sale.

The 90 lodgings are distributed in three buildings, two for the property for the members of the cooperatives (46 lodgings) and one for the social rent (16 lodgings) and contracted through SACC agreements with the Region (28 lodgings).

Housing solutions have been provided for a differentiated audience: singles, young couples, working students, families, the elderly, the middle class and the vulnerable sections of the population who do not have access to housing on the free market. The studios, two-room and three-room apartments, all in energy class A, are equipped with geothermal and photovoltaic system and underfloor heating.

300 sqm of space on the ground floor of one of the buildings are dedicated to incubators of cooperative enterprise and creative professions, part of the project called "ZOC -Zoia Officine Creative".

The project also included the creation of new public spaces and redevelopment of the square for the local market¹⁷².



Picture n.45: Project render – http://www.prassicoop.it/, 2014

The building for rent, which also has an orthogonal orientation to the other two, and overlooking the "Market Square" consists of accommodation of a smaller size than those intended for the property, more suitable to be used for rent at discounted and social rent. On the ground floor of this building, and in close connection with the square, are located the incubators for young creative ZOC. It is a complex cell, also from the social point of view, characterized by the presence of a differentiated user who lives in properties, leases and social. The relationship between the planivolumetric layout and the arrangement of open spaces has been designed, as well as to promote social sustainability, also in order

 $^{^{172}} https://www.artribune.com/progettazione/architettura/2016/04/progetto-zoia-social-housing-periferia-milano-federica-verona-architettura/$

to ensure optimal exposure to the buildings. Also the three rows of trees that surround the outside of the block to the east, south and west contribute to the climate control of the two buildings with a prevalent north-south orientation as they will act as a sunscreen during the summer (full crown) while in winter they will allow the passage. Towards the outside the facades of this "cluster" are characterized by a uniform light color; the elevations towards the inside are instead polychrome bands and a variation of colors is adopted on the scales of yellow, blue, green, gray.

The City of Milan that has granted the area in surface right with a ninety-year agreement to two cooperatives, Solidarnosc and Ferruccio Degradi, with the task of developing, implementing and managing the project. They were responsible for the development and management of the project ZOC - Zoia Officine Creative. The cooperative Noicoop also collaborated. The project, being the area ceded free of charge, was financed by cooperatives, which could also count on a regional grant.¹⁷³



Picture n.46: Project render - http://www.prassicoop.it/, 2014

One aspect to underline is the choice to strengthen the integration between open spaces, through the public use of the courtyard between the three residential buildings (Piazza della Cooperazione). This space is a private area open to all citizens in the daytime hours and closed in the evening hours, intended only for the use of the residence. The two buildings that have been assigned to the property, with orientation parallel to the streets Arioli Venegoni and Zoia, have the size of the apartments to meet the different needs of the members of the two Cooperatives (Coop. Edificatrice Ferruccio Degradi, with prevalence of three-room and four-room apartments and Coop. Solidarnosc with prevalence of two-room and three-room apartments).

The main features that characterize the intervention are:

- high level of social mix (apartments for sale, discounted rent, social rent for protected categories);

¹⁷³ https://www.legacooplombardia.it/

- high level of functional mix (residence, business incubators, condominium halls, communal laundries, bicycle shelter, bike-clinic, relationship concierge...);
- high level of energy sustainability (Class A, geothermal, photovoltaic);
- high availability of open spaces;
- high permeability between public, semi-public and private spaces;
- high level of integration with the neighborhood;
- low housing costs;
- requalification and valorization of the area;
- use of participatory processes and establishment of the project blog¹⁷⁴.

Zoiablog, the project blog, has been working for years, initially to create an imaginary shared between the tenants of Zoia and the inhabitants of Quarto Cagnino, and then to promote forms of exchange and sharing and the realization of community initiatives.

The existing void (Piazza della Cooperazione) is redeveloped to alternate the presence of the local market (which already took place here) to that of events, open-air exhibitions, temporary shops, cultural events, in close connection with the laboratories on the ground floor of the rented building and with the other common areas, which belong exclusively to the residents¹⁷⁵.

¹⁷⁴ Ivi.

¹⁷⁵ https://divisare.com/

Project	Project name	URBAN RENOVATION	SOURCES https://www.legacooplombardia
Project identification data	Project name	Zoia Housing Sociale	it/ https://www.legacooplombardia
	Localization	Via Zoia, Milano	it/
	Intervention area	7.200 sqm	https://www.artribune.com/pro ettazione/architettura/2016/04/ progetto-zoia-social-housing- periferia-milano-federica-verona architettura/
	Amount of investment	€ 15.949.239	https://cached.forges.forumpa.i /assets/Speeches/2393/1211_fr nco_zinna.pdf
	Land reclamation costs	N/A	
	Project description	Zoia provides the construction of affordable housing accessible to all, placing itself as a cultural center and creative workshop. The inner courtyard, formed by the three residential buildings, will become a place of integration for the inhabitants of the neighborhood. The existing square will be redeveloped and destined for a new local market.	https://www.green.it/abitare- sociale-milano-progetto-zoia/
Territorial framework	Accessibility	M1 and M5 subway lines; surface public lines No. 49, 78.	https://moovitapp.com/index/i mezzi_pubblici-Via_Fratelli_Zoia Milano_e_Lombardia- street_7816106-223
	Pre-existing services	Periferal urban area	https://www.legacooplombard it
	Real estate market	Real Estate Market: Bisceglie, Baggio, Olmi area (reference: Abitazioni civili normali) Sale values range: 1.947 – 2.500 €/sqm Rent values range: 5,88 – 8,88 €/sqm/month	https://www.immobiliare.it/
Stakeholders and partners	Masterplan architects	Prassicoop, Coprat	https://www.legacooplombard it
	Developer	Solidarnosc	https://www.legacooplombard it
	Land owner	Milan Municipality	https://www.legacooplombard it
	Others	-Main investors: Ferruccio Degradi -Architect: Arch. Vincenzo Gaglio, Arch. Luca Magnoni -Constructon company: Artedile Società Cooperativa -Public partner: Municipality of Milan	https://www.legacooplombard it ttps://www.astrid- online.it/static/upload/casa/cas benecomune_17.9.18.pdf https://www.green.it/abitare- sociale-milano-progetto-zoia/
Timeline	Public tender	2010	https://zoiablog.wordpress.cor l-team/
	Land aquisition date and its acquisition cost	Free concession by the Municipality of Milan in 2009	https://www.legacooplombard it
	Start date	2011	https://www.legacooplombard it
	Finish date	2014	https://www.legacooplombard it
	Current status	Completed	https://www.legacooplombard it

4.10.3. MAPPING AND ANALYSIS CHARTS OF THE ZOIA PROJECT

Functional	Public	Street market	https://www.legacooplombardia.
mix	functional mix	Open event area	it
	Private	ZOC - Zoia Officine Creative	
	functional mix	Social Housing	

	sc	CIAL HOUSING PROJECT	SOURCES
Project identification	Project name	Zoia Housing Sociale	https://www.legacooplomba rdia.it/
data	Localization	Via Zoia, Milano	https://www.legacooplomba rdia.it/
	Intervention area	7.200 sqm	https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
	Amount of investment	€ 15.949.239	https://cached.forges.forum pa.it/assets/Speeches/2393/ 1211_franco_zinna.pdf
	Project description	Zoia provides the construction of affordable housing accessible to all, placing itself as a cultural center and creative workshop. The inner courtyard, formed by the three residential buildings, will become a place of integration for the inhabitants of the neighborhood. The existing square will be redeveloped and destined for a new local market.	https://www.green.it/abitar e-sociale-milano-progetto- zoia/
Territorial framework	Accessibility	M1 and M5 subway lines; surface public lines No. 49, 78.	https://moovitapp.com/inde x/it/mezzi_pubblici- Via_Fratelli_Zoia- Milano_e_Lombardia- street_7816106-223
	Pre-existing services	Periferal urban area	https://www.legacooplomba rdia.it/
	Real estate market	Real Estate Market: Bisceglie, Baggio, Olmi (reference: Abitazioni civili normali) Sale values range: 1.947 – 2.500 €/sqm Rent values range: 5,88 – 8,88 €/sqm/month	https://www.immobiliare.it/
Stakeholders and partners	Developer	Prassicoop, Coprat	https://www.legacooplomba rdia.it/
una partners	Land owner	Milan Municipality	https://www.legacooplomba rdia.it/
	Social manager	N/A	
	Others	-Main investors: Ferruccio Degradi -Architect: Arch. Vincenzo Gaglio, Arch. Luca Magnoni -Constructon company: Artedile Società Cooperativa -Public partner: Municipality of Milan	https://www.legacooplomba rdia.it/ ttps://www.astrid- online.it/static/upload/casa/ casabenecomune_17.9.18.p df https://www.green.it/abitar e-sociale-milano-progetto- zoia/
Timeline	Public tender	2010	https://zoiablog.wordpress.c om/il-team/
	Land aquisition date	Free concession by the Municipality of Milan in 2009	https://www.legacooplomba rdia.it/
	Start date	2011	https://www.legacooplomba rdia.it/
	Finish date	2014	https://www.legacooplomba rdia.it/

	Current status	Completed		https://www.legacooplomba rdia.it/
Social mix and functional mix	Total residential area (sqm)	5.400 sqm		https://cached.forges.forum pa.it/assets/Speeches/2393/ 1211_franco_zinna.pdf
	Total non residential area (sqm)	1.800 sqm		https://cached.forges.forum pa.it/assets/Speeches/2393/ 1211_franco_zinna.pdf
	Green area surface (sqm)	900 sqm		https://cached.forges.forum pa.it/assets/Speeches/2393/ 1211_franco_zinna.pdf
	Common area surface (sqm)	900 sqm		https://cached.forges.forum pa.it/assets/Speeches/2393/ 1211_franco_zinna.pdf
	Type of non residential spaces	Creative worksh	ops, art gallery	https://www.legacooplomba rdia.it/
	Services	Street market, business incubators, community rooms, communal laundries, bicycle shelter, bike-clinic, relationship porter		https://divisare.com/
	Free housing	Target group	Members of the Solidarnosc cooperative	https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
		Number of accomodation	46	https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
		Type of accomodation	One, two, three-room apartments	https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
		Purchase values (Euro/sqm)	2.100 €/sqm	https://www.legacooplomba rdia.it/
	Ordinary conventioned housing	Lease values Target group	- Couples, families, singles, pensioner	https://www.legacooplomba
		Number of accomodation	28	rdia.it/ https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
		Type of accomodation	Two, three, four-room apartments	https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
		Purchase values (Euro/sqm)	-	
		Lease values	79 €/sqm	https://www.legacooplomba rdia.it/
	HS - Lett. A - Agevolata	N/A		
	HS - Lett. B - Canone moderato	N/A		

	HS - Lett. C - Canone sociale	Target group	Couples, families, singles, pensioner	https://www.legacooplomba rdia.it/
		Number of accomodation	16	https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
		Type of accomodation	Two, three, four-room apartments	https://www.artribune.com/ progettazione/architettura/2 016/04/progetto-zoia-social- housing-periferia-milano- federica-verona- architettura/
		Purchase values (Euro/sqm)	-	
		Lease values	15 €/sqm	https://www.legacooplomba rdia.it/
Social manager	Type of social manager contract	N/A		
	Contract duration	N/A		
	Total employees	N/A		
	Management software	N/A		
	Vacancy index	No available apa	artments at the moment	https://www.legacooplomba rdia.it/
	Community activities and integrated social management	N/A		
	Property management activities	N/A		
	Facility management activities	N/A		

4.10.4. CONSIDERATIONS

Zoia is a project already realized (2011-2014) and inhabited, which, as previously mentioned, is located in a peripheral area of Milan affected by hardship and social insecurity.

With regard to the level of environmental sustainability, the buildings are all in energy class A, are equipped with geothermal and photovoltaic systems and radiant underfloor heating; therefore, they can be considered adequate to current construction standards.

the architectural language adopted incorporates some of the traditional features of popular Milanese accommodation, reworking the theme of internal/external differentiation of the views, reinterpreting the way to bring the variety back to unity, looking at some of the social housing interventions of the beginning of the century at the semi-open court and the languages of rational experimentation and the post-war Milan. The choice of this architectural structure has focused on the possibility of encouraging an inclusive action of residents, while recalling the historical context of the neighboring district of Quarto Cagnino.

Given the good level of social and functional mix combined with the very low cost of housing determine the positive opinion on this construction.

To conclude, it can be said that Zoia achieves 5 of the 17 SDG objectives:

- No poverty (1);
- Affordable and clean energy (7);
- Reduced inequalities (10)
- Sustainable cities and communities (11);
- Partnerships for goals (17).

4.11. **5SQUARE**

4.11.1. CONTEXT ANALYSIS

The 5Square project is located in via Antegnati, between via Ripamonti and via Ferrari, in the Vigentino district south of Milan, in an area characterized by residential, productive and commercial settlements, a meeting place with the South Agricultural Park, that here goes deep into the city. Accessibility to the area is guaranteed by the tramway line along Via Ripamonti, which connects it with the main hubs of public transport exchange. The great project of Social Housing was born on the former Ligresti properties, purchased at the beginning of 2017 by Residenze Visconti srl, which had in turn purchased them after they had passed several times of hand following the bankruptcy of Fondiaria Sai of Galassia Ligresti¹⁷⁶.



Picture n.47: Project render - http://www.dedweb.it/, 2017

The historic core of the Vigentino district develops along Via Ripamonti, south of the railway overpass and the intersection with Via Quaranta and Via Solaroli, while another nucleus, more recent, runs parallel to Via Ripamonti, from Via Broni to Via Chopin, called Fatima Quarter, because the houses surround the park where the parish church is located.

The Vigentino District is a middle class residential and suburban area built since the 1970s and expanded over the next three decades, when the terminus of tram 24 was moved from Via Noto to the current destination by the INPS buildings.

The main public transport that serve the district are the tram 24 (basic connection for the Vigentinese, who can reach the center with ease) and buses 34 (essential to reach the M3 in Brenta, it connects the most isolated neighborhood Fatima with the area of Corvetto), 95 (useful to reach the M2 and the station of Rogoredo), 99 (towards Noverasco) and 222 (direction Pieve Emanuele). From the center it can be reached from Porta Vigentina following Via Ripamonti, and from the outskirts from the bypass Milano Vigentino - SS 412 Val Tidone - Opera¹⁷⁷.

¹⁷⁶ www.milanoabitare.org

¹⁷⁷ https://www.mondomilano.it/



According to the map PS S01_Servizi_Esistenti of the PGT of Milan, 5Square is located near the South Agricultural Park (the large green area), with areas used for education (grayish) and sports (blue) in the immediate vicinity.

Picture n.48: Milan PGT urban services map – https://ordinearchitetti.mi.it/it, 2022

4.11.2. THE PROJECT

With an investment of over 60 million euros to revive an area long abandoned to degradation has arisen, In Via Antegnati 7, suburban area of southern Milan, the most recent residential complex of social housing in Milan developed by Redo Sgr. The initiative is the result of an impressive renovation of 5 buildings for tertiary use never completed and abandoned for decades, provides for the refunctionalization of the five courtyard buildings, maintains the existing morphological conformation, but is standardized in its main façade, overlooking via Antegnati. On this side the buildings have a height of 5 floors and are identical and immediately recognizable from the street¹⁷⁸.

In spring 2022 5Square began to welcome the first families selected thanks to the first public notice: 468 apartments for rent and sale at discounted rentals at an average of $500 \in$ per month for an apartment of





Picture n.49, 50: The 5Square complex before and after its requalification – https://blog.urbanfile.org/, 2017; https://www.mitomorrow.it/, 2022

75sqm for rent and 2,000 €/sqm for sale. All apartments have been allocated and families are gradually moving into the new complex. The main feature of 5Square is the reuse: thanks to the attention to the environmental impact by Redo Sgr and the contribution of the prestigious architecture firm Barreca & La Varra in Milan, Impactful demolition was avoided by ensuring the reuse and rationing of the load-bearing concrete structures already present.

What makes the project distinctive is the innovative rental service of furniture and appliances Circular Housing, always born with a view to reuse and reduction of environmental impact, both for pollution aspects and for those of the circular economy in a wider sense. The service offers a sustainable, economical and easy alternative to buying "classic" through an agreement for the rental of furniture and appliances. Thanks to the Circular Housing formula, a family can completely furnish a two-room apartment with an installment of approx. 100 \notin /month and change all the furniture every 8 years in line with the classic rental contract (4+4). At the end of the rental, the furniture is collected and sent to the disposal and/or reuse process. In addition to the 1,000 \notin of advance would be spent, therefore, 13,000 \notin , about 30% less than the purchase.

The project stems from the need to integrate the principles of the circular economy in everyday life and provides for a drastic reduction of waste to be disposed of from production and consumption¹⁷⁹.

The benefits for users and the environment are many and the responsibility for installation, annual maintenance and final disposal is in the hands of specialists. The manufacturer, in fact, buying back the products at the end of the contract, guarantees the recovery, reuse or proper disposal. Thanks to this model, it is estimated a reduction of about 370 kg CO₂eq each year per apartment (data Politecnico di Milano), equivalent to the CO2 absorbed by a forest of about 2,000 square meters.

The project is supported by EIT Climate KIC, the community founded by the European Institute for Innovation and Technology that brings together organizations with the goal of addressing climate change.

The coordination of the project and the realization of the service within the 5Square initiative, coordinated by Redo Sgr, sees the partnership of several actors: Compass Rent as rental service provider, FHS (social technical advisor), Erion (circular economy expert)¹⁸⁰.

¹⁷⁹ https://www.5square.it/

¹⁸⁰ Ivi.



Picture n.51: 5Square plan - https://www.5square.it/, 2017

Among the living services are the office of the social manager, a living space, a multipurpose room and a gym, while among those urban premises there are a polyclinic and a family clinic. Finally, large spaces are dedicated to commercial activities such as shops, bars and dining areas.

The complex is equipped with heating, domestic hot water and air conditioning, consisting of three main elements. The district is equipped with a single open geothermal system, the building of a system of distribution of technological fluids and the private apartments of autonomous water condensed heat pumps. The consumption management and monitoring system is via mobile app, which allows an immediate analysis and therefore to have a direct control over expenses.

The buildings are designed with thermoacoustic insulation between the interior walls, sunshade curtains in the west exposures, integral "coat" in the exterior walls, radiant panel heating in each apartment. In addition, all parking spaces are prepared for the installation of charging points for electric cars.

The complex includes green spaces, common to all buildings, equipped with irrigation system linked to the real hygrometric condition of the land, for the lawn and for shrub and medium-sized trees. Pedestrian paths guide people on walks and offer places to stop¹⁸¹.

¹⁸¹ http://barrecaelavarra.it/progetti/social-housing-via-antegnati/

4.11.3. MAPPING AND ANALYSIS CHARTS OF THE 5SQUARE PROJECT

Project	Project name	URBAN RENOVATION	SOURCES https://www.5square.it/
Project identification	Project name Localization	5Square	https://www.5square.it/
data	Intervention	Via Antegnati, Milano 35,600 sqm	https://www.5square.it/
	area	55,000 3411	
	Amount of investment	€ 41.430.000	https://www.5square.it/
	Land reclamation costs	N/A	
	Project description	5Square is the first social housing project in Milan born from a complete regeneration of abandoned buildings, a new building complex consisting of five buildings that open onto five internal courtyards connected together with green spaces for meeting and play, Urban local services including a kindergarten, a health clinic and rehabilitation center, a health clinic and neighborhood shops.	www.milanoabitare.org
Territorial	Accessibility	Tram line No. 24, public bus lines No. 34, 95, 99, 222.	https://www.mondomilano.it/
framework	Pre-existing services	Unfinished tertiary buildings	https://www.mondomilano.it/
	Real estate market	Real Estate Market: Ripamonti, Vigentino area (reference: Abitazioni civili normali) Sale values range: 1.935 -3.313 €/sqm Rent values range: 5,88 - 10 €/sqm/month	https://www.immobiliare.it/
Stakeholders	Masterplan	Barreca & La Varra	www.milanoabitare.org
and partners	architects		
	Developer	Redo SGR	www.milanoabitare.org
	Land owner	Residenze Visconti srl	https://www.mondomilano.it/
	Others	Main investors: Fondo Immobiliare Lombardia (comprehending Cdp Investimenti SGR, Fondazione Cariplo, Intesa San Paolo, Unicredit, Regione Lombardia, Cassa Italiana Previdenza e Assistenza Geometri, Generali, Banco BPM, Aler Milano, Telecom) Technical and social advisor: FHS Circular economy advisor: Erion Furniture rental: Compass Rent	https://www.5square.it/ https://5square.it/ https://www.monitorimmobiliare.it
Timeline	Public tender	N/A	
	Land aquisition date and its acquisition cost	2017	https://www.mondomilano.it/
	Start date	2017	www.milanoabitare.org
	Finish date	2022	www.milanoabitare.org
	Current status	Completed	www.milanoabitare.org
Functional	Public functional	Kindergarten	https://www.legacooplombardia.it,
mix	mix	Polyclinic	
	Private	Social Housing	
	functional mix	Shopping areas	
		Gym	
		Polifunctional spaces	

Due i t	Duelest	SOCIAL HOUSING PROJECT	SOURCES
Project	Project name	5Square	https://www.5square.it/ https://www.5square.it/
identification data	Localization Intervention	Via Antegnati, Milano	https://www.5square.it/
	area	35.600 sqm	
	Amount of investment	€ 41.430.000	https://www.5square.it/
	Project description	5Square is the first social housing project in Milan born from a complete regeneration of abandoned buildings, a new building complex consisting of five buildings that open onto five internal courtyards connected together with green spaces for meeting and play, Urban local services including a kindergarten, a health clinic and rehabilitation center, a health clinic and neighborhood shops.	www.milanoabitare.org
Territorial framework	Accessibility	Tram line No. 24, public bus lines No. 34, 95, 99, 222.	https://www.mondomilan o.it/
	Pre-existing services	Unfinished tertiary buildings	https://www.mondomilan o.it/
	Real estate market	Real Estate Market: Ripamonti, Vigentino area (reference: Abitazioni civili normali) Sale values range: 1,935 -3,313 €/sqm Rent values range: 5.88 - 10 €/sqm/month	https://www.immobiliare. t/
Stakeholders	Developer	Barreca & La Varra	www.milanoabitare.org
and partners	Land owner	Redo SGR	www.milanoabitare.org
	Social manager	FHS	http://barrecaelavarra.it/
	Others	Main investors: Fondo Immobiliare Lombardia (comprehending Cdp Investimenti SGR, Fondazione Cariplo, Intesa San Paolo, Unicredit, Regione Lombardia, Cassa Italiana Previdenza e Assistenza Geometri, Generali, Banco BPM, Aler Milano, Telecom) Technical and social advisor: FHS Circular economy advisor: Erion Furniture rental: Compass Rent	https://www.5square.it/ https://5square.it/ http://www.monitorimmo biliare.it
Timeline	Public tender	N/A	
	Land aquisition date	2017	https://www.mondomilar o.it/
	Start date	2017	www.milanoabitare.org
	Finish date	2022	www.milanoabitare.org
	Current status	Completed	www.milanoabitare.org
Social mix and functional mix	Total residential area (sqm)	28.000 sqm	https://www.5square.it/
	Total non residential area (sqm)	2.000 sqm	https://www.5square.it/
	Green area surface (sqm)	16.768 sqm	https://www.5square.it/
	Common area surface (sqm)	860 sqm	https://www.5square.it/
	Type of non residential spaces	Commercial areas, polyfunctional areas	https://www.legacooplon bardia.it
	Services	Polyfunctional areas, gym, common living area, social manager office, polyclinc, kindergarten, family planning clinic	www.milanoabitare.org

			1		
Free housing	N/A				
Ordinary conventioned	Target group	Students, people with disabilities, singles, households, elderly, workers.	www.milanoabitare.org		
housing	Number of accomodations	304 (25 dedicated to Third Sector Entities - ETS residential services)	www.milanoabitare.org		
	Type of accomodation	One, two, three-room apartments	www.milanoabitare.org		
	Purchase values (Euro/sqm)	2.000 €/sqm	www.milanoabitare.org		
	Lease values	From 4,50 to 7,70 €/month	www.milanoabitare.org		
HS - Lett. A - Agevolata	N/A				
HS - Lett. B - Canone moderato	N/A				
HS - Lett. C - Canone sociale	N/A				
Type of social manager contract	N/A	N/A			
Contract duration	N/A				
Total employees	N/A				
Management software	App Redo		https://www.5square.it/		
Vacancy index	No available apar	tments at the moment	https://www.5square.it/		
Community activities and integrated social management	Management of the polyfunctional area and the other shared https://www.5square.it/ services				
Property management activities	Office administra	https://www.5square.it/			
Facility management activities	Maintenance management https://www.5squa				

Social manager

4.11.4. CONSIDERATIONS

5Square is the first social housing project in Milan born from a complete regeneration of abandoned buildings; therefore, it is to be considered a valid contribution to the environmental and social recovery of an area of the city otherwise destined to degradation.

The innovative Circular Housing[®] furniture and appliances rental service offers a sustainable and economical alternative to the "classic" purchase through an agreement for the rental of furniture and appliances. This service is aimed at reusing and reducing the environmental impact, both in terms of pollution and in terms of the wider circular economy.

The buildings are equipped with thermoacoustic insulation, sunshades and integral "coat" and state-of-the-art technological systems (geothermal system, technological fluid distribution system, heat pumps). The good level of environmental sustainability is also supported by a system of consumption management and monitoring via mobile app, which allows you to have direct control over expenses. In addition, all parking spaces are prepared for the installation of charging points for electric cars.

From the point of view of the functional mix, the opinion is positive, there are services for tenants such as the office of the social manager, a living space, a multipurpose room and a gym, as well as local urban services such as a health centre and a family clinic. In addition, large areas are dedicated to commercial activities such as shops, bars and dining areas.

In addition, prices and rentals appear low enough to allow a good social mix of tenants.

To conclude, it can be said that 5Squares respects 5 of the 17 SDG objectives:

- Affordable and clean energy (7);
- Responsible consumption and production (12);
- Climate action (13);
- Life on land (15);
- Partnerships for goals (17).

CONCLUSIONS

As highlighted in this thesis, the theme of the house is at the center of reflection and debate as a result of an increasingly widespread economic discomfort in the face of property prices and leases that, especially in large cities, become an increasingly important item of household income. It is therefore increasingly urgent to recover a sustainable way of life even within complex urban systems such as large cities. Over the years, in fact, there has been a process of constant reduction of the minimum housing size required, generating an exponential increase in rental and purchase costs per square meter. Suffice it to say that in cities like Milan it is allowed to build houses with a minimum size of 28sqm that are sold or leased at unreasonable prices, all the more so now that the concept of home-dormitory strongly opposes the return of the idea of home as a living space.

One answer that could be configured as the optimal solution to combine the new needs of housing and the reduced economic availability of families is the social housing that, in this work, is investigated with particular reference to the impact of this type of intervention in projects and programs of urban regeneration.

After having deepened the theme of social housing in Europe and in the national context, the research has deepened the dimensional data regarding the demand for social housing expressed by the so-called "gray band" of the population.

On the subject of Social housing Milan is certainly among the most active cities in this regard, and there are now many social housing projects already implemented and being activated; Therefore, the second part of the thesis focused on the mapping and analysis of urban regeneration projects, within that capital, in which social housing interventions were present. Several of the examples described relate to major areas of transformation, both in view of the areas concerned and in terms of the complexity of the projects, which do not only concern the construction of individual buildings but consider entire neighborhoods with interventions that allow the "re-urbanization" of parts of the city through the renewal of roads and the creation of large green spaces. Other cases analyzed are instead of smaller dimensions but are proposed however like attractive agents of positive actions, is from the social point of view that economic, for the neighborhood in which they are realized.

The mapping of Social Housing projects, for example, referred to the atlas of urban regeneration projects carried out by the City of Milan. The analysis of the projects provided for the definition of an ad hoc card that, in addition to containing the identifying data of the project (including location, progress of the project, promoter, financiers, investment amount, etc.) has highlighted some parameters characterizing the interventions such as: the functions installed, the target beneficiaries, the public-private partnership put in place.

The result of this analysis shows that the prices of housing carried out in Social housing projects have a price, both selling and renting, much lower than the market and therefore within the reach of a wider population. In the face of low prices, the construction quality of the buildings remains high, given that construction techniques and systems are not only

adapted to current building standards, but in many cases are compatible with the most advanced energy saving techniques.

This first mapping of the urban regeneration projects analyzed showed how the inclusion of social housing interventions contributes significantly to the organic nature of the regeneration intervention, among others: the functional mix is enriched and diversified thanks to the inclusion of public services and public interest - diversifying the offer, in favor of an expansion of the social mix that opens up and includes population groups - that in the logic of the market - would be excluded.

It seems appropriate to highlight the possibility that the intervention of Social Housing becomes an opportunity for the context in which it insists derives primarily from the promoter's ability to conceive the project triggering an active dialogue with local realities and the ability to involve a multitude of actors and make the project an urban attractor.

In this sense, the correct functional mix can ensure those activities that make buildings a key element for the transformation of its urban context.

The construction of the community to be settled, which begins with the selection of the inhabitants also assessing their ability to relate to others, It appears to be another key element in ensuring a balanced social mix or a social dimension of individual interventions. For this reason it is necessary that social housing projects are of interest, not only peripheral areas (usually it is a matter of recovering abandoned industrial areas or areas that are degraded and in a state of neglect) but also the central areas with interventions aimed at regenerating wider parts of the city with new impulses, through projects that are able to grasp the needs for quality and urban living required, offering, in addition to housing, specific local services and collective spaces adapted to the needs of a changed and changing society, through an elaborate social project, as well as urban-architectural.

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