

The Social Manager as a key player in the Social Housing Communities

Angela Silvia Pavesi,
Politecnico di Milano - ABC Department
(angela.pavesi@polimi.it)
Rossana Zaccaria,
Legacoop Abitanti
(r.zaccaria@legacoopabitanti.it)
Genny Cia,
Politecnico di Milano - ABC Department
(genny.cia@polimi.it)

Abstract

In Italy, in the real estate branch of social housing funds, there is a key player guarantor in fact of the service of general interest, both of sustainable development and social inclusion: the Social Manager. According to reduce the gap among the housing policy, the impact financing and the community of inhabitants, the Social Manager has made its mark as a strategic partner for designing and managing the infrastructure of social welfare.

The social housing management enterprises come from the long tradition of Housing Cooperatives: in the last decade to reduce the competition with the social housing funds, some Housing Cooperatives have been started to be the incubators of new model of Cooperatives Enterprises, specialised in building, facility and community management.

In the current model of public-private-partnership for delivering social housing, we observe that the Social Manager is leading new models of strong and collaborative housing communities through asset and Social Management; it could be considered as the guarantee of the Services of General Interest; it is more and more the key element for the de-risking strategy of social housing investments.

In this paper we will present the first result of the research "The Cooperative Social Manager, infrastructure for social housing" promoted by Politecnico di Milano and Legacoop Abitanti and we will present tools and methods for the impact evaluation of the Social Management activities; we'll describe how the social housing management enterprises could represent the driver of social innovation and of inclusive growth in the regeneration of built environment.

Keywords: Italian Social Housing, Social Management, Housing Cooperatives, Social Housing Communities

1. Introduction

For more than a decade, the most advanced European experiences of social housing show an extension of the perimeter of living to the sphere of services and collaboration, opening to the urban scale and proposing a dynamic system of welfare. In recent years, living has been an element that has driven many initiatives aimed at guaranteeing the right to an accessible city and improving the quality of life in urban areas and in the suburbs.

Living experiences capable of experimenting with different models have designed innovative social infrastructures through new welfare models (Ferri et al. 2018). Among the aims of the Europe 2020 strategy, the European Commission underlines the importance of preventing and tackling social exclusion by identifying the right to housing as a decisive factor.

Nations such as France, the Netherlands and Sweden, thanks to their consolidated welfare system, have been able to develop interventions characterized by a plurality of functions, infrastructural facilities, support services to housing, distributed on urban areas in which to find an offer housing characterized by a wider social mix (Zoli, 2004).

Housing Europe¹³ (2017) underlines the multidimensionality of these projects and recommends accompanying programs to promote cohabitation among inhabitants and consolidate local communities. Social housing is a sector included in the logic of private investment, therefore it is essential to pay attention to the real estate aspects, i.e. to all instruments that guarantee the functioning of the building over time and the profitability for investors, including ethical ones.

The management phase is responsible for the balance between ethical and profitability of the projects. In this phase must coexist: return of investment: i.e. to guarantee planned returns, implementing strategies to reduce risks and maximize profitability; asset target: i.e. to guarantee the maintenance of the property value over time; the social and environmental objective: i.e. to guarantee sustainability in terms of prices consistent with spending power, flexible contracts, service offerings, etc.

In Italy, these objectives are pursued thanks to the experience and actions put in place by so-called "Social Manager" the key figure in social housing interventions; as well as stated in the essay by Del Gatto et al. (2012) element of guaranteeing for the sustainability of the interventions.

The Social Manager typically takes a non-profit or limited profit legal form (Housing Cooperatives or Social Cooperatives). Its management model consists of solid participatory foundations - inhabitants are adequately represented within the management processes and participate, where possible, also in the creation and management of services. The mode of establishment and experimentation of this type of operator represents one of the most qualifying contents of the model and of Italian social housing projects.

The Social Manager is distinguished from the traditional property manager by the central role of tenants and communities that receiving services. In addition to the Property and Facility Management activities - aimed at preserving the real estate value - the Social Manager carries out all activities turned to beneficiaries of the service by an integrated management model.

The innovative aspect of Social Manager is to integrate hardware and software skills: from administrative management to building management or the management of social relations. By adopting a perspective broader, Social Manager also relates to the urban context, by acquiring potentiality and offering externalities of social project to the surrounding environment. It is necessary to create conditions to ensure this activity will be sustainable in an entrepreneurial point of view. Social Management will be a new form of entrepreneurship, where the challenge is to bring the model of cooperation of inhabitants, with its stratification and its history, into a "trade" made of skills built over time, of new skills to be acquired and creative visions to draw.

¹³ Housing Europe (The European Federation for Public, Cooperative and Social Housing) is a network, operating since 1988, of 45 national and regional federations that collect 43,000 accommodation providers in 24 countries. They manage over 26 million homes, about 11% of existing homes in Europe. Inside it operates a research observatory at European level with the aim to identify needs and trends to provide strategic support to the social housing sector (www.housingeurope.eu).

2. Method

It is for that reason that in 2017 it started by Legacoop Abitanti¹⁴, Finabita and Fondazione Housing Sociale, with the sponsorships of Coopfond and Cooperhousing and the participation of Department of Architecture, Built environment and Construction engineering of the Politecnico di Milano, a research entitled "The Cooperative Social Manager, infrastructure for social housing".

The research was carried out by a national workshop, with the dual purpose: to interrogate the social housing sector about Housing Cooperatives (Cooperative Social Management) as Social Manager and to define a model of "Cooperative Service Level Agreement for the Collaborative Living" to be adopted as a quality protocol in social housing projects.

This path included thematic workshops on the national territory (Milan, Bologna, Florence, Rome) to define the main aspects of social and real estate management and to build a shared protocol. From the methodological point of view, the research is designed as a continuous and dynamic process, opened to solicitations and contaminations of all the participants. The findings are the result of a shared journey in the field of social housing. This path transformed the consolidated knowledge of cooperative living and cooperative experience in a replicable project on the national territory.

The paper shows the research results about the needs of "renewal and fine-tuning of the processes" resulting from the main actors of the Italian social housing chain (investors and asset management companies - Sgr) as well as from the new scenario that will hopefully delineate by impact finance¹⁵.

Due to the complexity and peculiarity of the research, the paper describes: first of all the framework of social housing in Italy: history, developments and main characteristics; subsequently it proposes a focus on social management as a lever for the creation of inclusive and cohesive communities; a deepening on the Housing Cooperatives as the primary interlocutor of this research as well as a supporter of the actions necessary for the start-up, conservation and maintenance of the community over time; finally, the transition from traditional real estate management to the new integrated management model named as Social Real Estate Management by which to guarantee sustainability over time of the community and interventions.

3. Results

3.1 The Italian Social Housing: the social management

The sense of community and belonging to a We have become objectives to be achieved through living and places like the house and the neighborhood. The latter are levers through which to experience collective belonging. Therefore, a new semantics of living emerges in which the so-called social housing introduces new priorities: to generate social value and the awareness that the housing demand needs differentiated responses and an inclusive social context as it is composed of a heterogeneity of needs and types of residents.

Social housing has become a financial and real estate product that offers accommodation and services at affordable and accessible costs. In general, social housing is an integral part of a social genesis and a new idea of the city and a research that - given the many variables such as financial and management, urban and architectural - presents a very complex articulation in the phase of planning and an even more difficult forecasting capacity regarding the social outcomes of the interventions.

In Italy, the current response to housing demand represents the evolution of a centralist welfare model, generated by a regulatory framework that, starting from 2008, triggers a change in the social residential building sector, recalling resources of private companies for the provision of a "service of general interest".

¹⁴ Legacoop Abitanti established in 1961, is the National Association that organizes and represents the Housing Cooperatives and promotes the planning and entrepreneurial development.

¹⁵ Impact finance designs the scenario of a new economy in which the industrialization of social entrepreneurship is desirable. It will be implemented by: the engineering and optimization of processes, the strengthening of organizational structures and the acquisition of new technical expertise in the field of management of built environment and digital innovation.

In 2008 the definition of social housing was coined, borrowing from the Anglo-Saxon approach rules and term "social housing". The Italian definition focuses on two innovative aspects: what is the purpose of social housing? and who is the service of general interest addressed to?

The first step of national legislator is to provide a clear definition of "social housing"¹⁶ in line with Decision 2005/842/EC. By D.M. 32438/2008 the Ministry of Infrastructures and Transport codifies definition, characteristics and requirements about social housing. The Residential Social Housing (ERS) includes all interventions realized by the joint between public and private subjects and satisfies the social right to housing of individuals and households that are not able to access the free market.

In Italy, from 2008 starts a new path that integrate the quantitative and qualitative approach, with an emphasis on the forms of cooperation between public, private and third sector, according to the project financing model. In this context, our country is experimenting the Integrated Fund System, a form of Private Public Partnership (profit, non-profit and limited profit). By adopting project financing logic, it triggers a process of privatization (off-balance sheet investments of the public sector), financialization (ethical real estate funds) and socialization (design and technical-social management) of the interventions in the residential sector.

For over eight years Cassa Depositi e Prestiti (CDP)¹⁷ has promoted the development of social housing by a fund of funds, the Fondo Investimenti per l'Abitare (FIA), of which it is the reference investor (with 1-billion-euro capital, equal to about 50% of the total financial allocation of € 2,028 billion), as well as manager through the subsidiary CDP Investimenti Sgr. In addition to CDP, the Ministry of Infrastructure and Transport (140 million euros), the main national banks, insurance companies and some of the main Italian social security institutions are FIA investors.

The activity of CDP is carried out (to date) by a SIF: 30 local real estate funds, managed by 9 main Sgr, which have as a reference investor FIA (with shares between 60% and 80% of the total capital) and as local investors, local foundations of banking origin as co-investors, but also Regions, Provinces, Municipalities, Housing Cooperatives and developers.

The offer of the SIF provides for 2020 over 270 interventions in Italy for over 20,000 social housing and 8,500 beds in temporary and student residences¹⁸.

The offer of the SIF is characterized by a prevalence of moderate rent and an innovative mode to favor access to community welfare, i.e. a network of social services and human relations, based on the principles of sharing and solidarity.

This new housing model is the result of exchange and sharing processes conceived within a collaborative economy, models that move outside the traditional networks of the real estate market, even for the procurement of financial resources. In fact, compared to traditional interventions, social housing presents some characteristic aspects (Ferri et al. 2017):

3. the interaction between public and private entities;
4. the social mix, e.g. elderly, disabled, single-parent families, young couples, etc.;
5. the functional mix, e.g. residential, commercial, cultural or handicraft, etc.;
6. the offer of different type of housing, contract or access solutions;
7. the involvement of inhabitants in decision-making processes for the management of communities and residences;
8. the provision of various types of services: social welfare and community development, aimed at both residents and neighbors.

The exceptional nature of the "social housing" project lies in radically changing the approach to housing demand that through social management, involvement in the care of common areas and the participation

¹⁶ In the Decree of 24/02/2008, art. 2 Definitions, "social housing" is defined as: the real estate unit used for permanent rented and residential use which performs the function of general interest; in order to safeguard social cohesion, to reduce the housing disadvantage individuals and families, which do not are able to access the rental of housing in the free market. Social housing is set up as an essential element of the social housing system consisting of the set of housing services aimed at meeting the primary needs.

¹⁷ Cassa Depositi e Prestiti is a public limited company, 83% controlled by the Ministry of the Economy and Finance and approximately 17% by various bank foundations in the country. CDP operates within the Italian economic system as a state bank.

¹⁸ According to Housing Europe (2018) in Italy 5.5% are social housing rented, in France social housing reaches 17.4%, in the United Kingdom 18.2%, in Germany 4.2%, in the Netherlands 7%, in Sweden 18%, in Ireland 10.3%, in Finland 17.4%, in the Czech Republic 9.4%, in Austria 20.1% and 2.4% in Spain.

of residents in decisions, it is possible to trigger a sense of belonging to the community.

3.2 The Social Management as an integrated management model

The term Social Management refers to the set of activities for the management and administration of real estate assets as well as the management of community and the relationships between the people who live there. In addition to the activities of Property and Facility Management - aimed at preserving the real estate value of the built - the Social Manager is characterized by the centrality reserved to the tenant beneficiary of the services.

The intrinsic value of the assets allocated to the property (patrimonial value) is immediately deductible, and the value inherent in social activities (social value) is more difficult to perceive. Nevertheless, experience shows that ex-ante design, implementation and consolidation of an integrated management model guarantee the creation and preservation of a broader value over the long term.

In social housing interventions, cohesive and solidarity communities play a key role for the sustainability of the project: social sustainability, achieved also through the quality of living and the creation of good-neighborly relations, shows to have a capacity to trigger a cycle virtuous that contributes to the economic-financial sustainability (Del Gatto et al., 2012; Pavesi et al., 2018).

The innovative concept proposed by the Social Manager is made up of the participatory approach to living, up to the more stringent formulation of "collaborative living": the neighborhood, the house, the common spaces and services are allocated within a framework of shared self-organization which is fundamental in order to increase the respect of the common good, to increase responsibility in the management and maintenance of assets, and to reduce the arrears.

In this context, the Social Manager, in addition to designing and structuring the community start-up project, is called to support the inhabitants in itinere, managing potential conflicts and identifying the emerging needs of the established community.

The objective of the Social Manager is to provide high quality services - constantly assessed through the balance between economic dimension and social benefit. The following is a summary of the main activities of the Manager.

Table 6: The main activities of Social Manger in Social Housing Project

<i>Community Management</i>	<i>Facility Management</i>	<i>Property Management</i>
<i>Promotion, Communication, Valorisation of Social Project</i>	<i>Start-up management services</i>	<i>Administrative management</i>
<i>Selection and Identification of Candidates</i>	<i>Guarantee Management</i>	<i>Fiscal Management of active relationships</i>
<i>Communication and Turnover Management</i>	<i>Technical Management Coordination services</i>	<i>Fiscal Management of Real Estate assets</i>
<i>Morosity prevention and resolution management</i>	<i>Supplier Management and Control services</i>	<i>Technical/administrative adjustment</i>
<i>Pre-confirmation services</i>	<i>Planning and services budgeting</i>	<i>Management legal aspects of morosity</i>
<i>Management of common space and community activities</i>	<i>Fulfillments technical/administrative</i>	<i>Morosity prevention and resolution management</i>
<i>Networking</i>	<i>Pre-confirmation services</i>	<i>Condominium Administration</i>
<i>Community start-up and monitoring</i>	<i>Insurance services</i>	<i>Management of common space and community activities</i>

Due to the experimental nature of Social Housing interventions, the specificity of the territorial contexts and the relationships with the communities that by definition are different from each other, in the projects and objectives. In fact, the Social Management services adapt and model themselves according to the needs of the communities in which they operate; nonetheless, however, the adoption of

homogeneous action models will also allow non-experienced companies to operate correctly and be able to collaborate with the FIA Funds.

When the role of the Social Manager is carried out by a cooperative entity, the instance of defining collaborative communities is intrinsically fulfilled through the competences deriving from the cooperative tradition of subjects. The Social Management represents a strategic development field for the Housing Cooperatives who, in association with Social Cooperatives (services) and with service providers (management systems) take the form of innovative governance structures: temporary and therefore flexible; created ad hoc and therefore focused on the specialization of the service; territorial and therefore promoter of development of local networks; specialized and therefore profiled according to the necessary skills.

3.3 The role of Italian Housing Cooperatives in the Social Housing Community

Within this evolutionary phenomenon of living, it can observe the role of the Cooperation of Inhabitants. Since the end of the Nineties, the building cooperatives have been transformed into Housing Cooperatives, that is from cooperatives that declare themselves through a function of 'making the home' to cooperatives that declare themselves through the people that constitute them 'the inhabitants' (CLUEB, 2010).

The origin of the Cooperation of Inhabitants is at the end of the nineteenth century, with objectives and values similar to the contemporary ones as shown by the manifests of some Italian Cooperatives such as the Cooperative Risanamento, Bologna 1884, which declares: "to prevent the poorest, for to live worse than anyone else, to pay proportionately more than any other " or in the Manifesto of the Building Society Workers, Milan 1879, reads: " offers ownership of the houses to the shareholders, honest conduct, by paying a fee for a certain number of years".

Over time, cooperatives have ensured protection for members, have produced value that has been passed on to the generations, have contributed to the economy and the welfare state. The cooperatives have been one of the tools of housing policies in Italy, responding to the need for a home in a mutualistic way, aggregating the need, collaborating with public policies.

To date, there are 300,000 homes built and around 40,000 undivided property housing¹⁹.

Based on this system of values, the Cooperation of Inhabitants has identified in the Social Management the innovative driver for the potential repositioning of its production base.

One of the experimental areas, in addition to the management of its assets, is constituted by the social housing projects created in the FIA. This type of intervention requires the design of houses and communities as a coherent organism.

According to Zaccaria (2018), housing projects built for this purpose have the potential to be transformed into one of the Community Hub declinations, understood as "a symbolic space for the elaboration of collective issues. Communities engage in the commissioning and driving of inclusive processes of territorial development. Through a propagation approach, the Community Hubs make local development a community development process, based on plurality, co-production, circulation and redistribution of perceived value on several levels"²⁰.

The pure experiences of Community Hub, triggered by a bottom-up intervention, otherwise, in cooperative housing projects and social housing a dual process develops: on the one hand a bottom-up approach, the communities created are accumulated by sharing of a need on which the sharing of intentions with respect to a residential well-being purpose is achieved through a top-down approach, which sees external facilitators in action. The "facilitators" perform this function with interdisciplinary

¹⁹ According to the Royal Decree n°1165 of 1938, for cooperatives with undivided properties it means: the members adhere to the cooperative with the intent of obtaining the assignment in indefinite enjoyment of an accommodation. The cooperative proceeds with the construction of residential buildings that become part of the cooperative's assets and which will be granted to the members assigned to them, upon payment of an enjoyment fee. The cooperative realizes the real estate thanks to the payment of the social shares and other contributions by the members that integrate the part of the construction costs not covered by mortgages granted by banks or other credit institutions.

²⁰ Kilowatt, Avanzi, Sostenibilità per Azioni, Dinamoscopio & SuMisura (2016).

skills from innovative architectural design, to service-design, to the functions of social technical advisors with start-up skills and community start-up, translating into the figure of the Social Manager. In this new vision of living with an increasingly complex demand, on the supply side we are witnessing the activation of a new system of private actors, which has started to populate the field of housing policies, experimenting with innovative solutions different from rigid models of the public actor (Avanzi, 2016).

The Housing Cooperatives, bearers of a history of mutual organization of housing needs with democratic governance, are introduced into the community making and community management of urban challenges, identifying a new field of action in the Social Management. Social Management is transformed into a new form of entrepreneurship, where the challenge is to transform the model of the Cooperation of Inhabitants, with its stratification, into a new model of scalable and replicable social entrepreneurship.

It is therefore clear that it is necessary to create the conditions for social management to become sustainable from an entrepreneurial point of view.

3.4 How to create and regenerate social value through social housing

It is precisely on the task of engineering the activities provided by the Cooperative Social Manager and the entrepreneurial model that the research promoted by Politecnico di Milano and Legacoop Abitanti is built. Among the objectives of the research is the need to focus on the complexity of skills and actions necessary for the performance of the Social Management function in social housing projects, implemented through the FIA. In the publication of CDP (2015), it emerges that the heterogeneity of social housing interventions - and the wider scale of regeneration of the building - requires planning, experimenting and consolidating innovative management models, capable of guaranteeing efficient and effective management both community of inhabitants and built itself. The generation of cohesive and supportive residential communities is the central point of the sustainability of the new interventions. Pursuing social sustainability - quality of living and the creation of a good neighborhood - triggers a virtuous circle towards the economic-financial and physical sustainability of interventions - greater respect for the common good, the responsibility of the community in management, containment of arrears - resulting maintenance of the asset value over time.

The managers have intercepted this challenge and with social housing, the dimensions of the two different economics, social and private sectors have begun to talk about the methods and tools necessary to create the supply of goods and services.

The scientific community that studies the Real Estate market clearly shows the need for a profiling of the Cooperative Social Manager more in line with the market, especially in terms of contractual arrangements and guarantees through which the management service is carried out in the real estate funds market. Furthermore, it is evident that the scenario of the Social Managers, populated by a pluralism of subjects and skills, must go from fragmentary to a corporate, system and market vision.

3.5 From Corporate Real Estate to Social Real Estate Management

The transformation towards an economy of services, technological changes and social transformations - that are influencing the ways of living and working - have increased the awareness of economic operators, public and private, towards the active management of their real estate resources, identifying them as assets to provide competitive economic advantage (Gibson, 1994; Krumm and de Vries, 2003; Kaganova, 2008). To maximize productivity and shareholder value (Huffman, 2002) and to meet the demands of investors and end-users (Yontz, 2001), it is necessary to simultaneously manage properties, people and processes (White, 2011).

The need to actively manage the real estate team began its journey starting from the 80s but only in the Nineties there was the transition to a proactive model of management of the real estate portfolio. In recent years, many researches have been concentrated on the decision-making process and on Key Performance Indicators (KPIs) that allow the measurement of the performance achieved. According to Burns (2002) asset management should therefore focus on two levels of performance: the increase in

revenues and the increase in profitability, which make it possible to quantify the reduction of expenses and a more efficient use of the resources available in order to maximize business goals.

This aspect is what undoubtedly most characterizes the social housing that, in addition to the purpose of income, must also pursue an ethical aim in achieving a housing policy of public interest.

It is for these reasons that an interesting field of research in Real Estate concerns the translation of methods and tools codified and applied in the field of Corporate Real Estate Management (CREM) to the social economy, in order to streamline the processes of a new segment of the real estate sector, recently codified in the Social Real Estate Management®.

It defines Social Real Estate Management (SREM), the technical-economic management of real estate, through methods and tools for the enhancement of the built environment and its material components (real estate) and immaterial (people, bonds and solidarity networks) to the to maximize the production of social value and to define the social impact deriving from the creation of welfare goods and services. These methods are carried out in the strategic management of real estate assets that are used to achieve welfare purposes (personal services, services of general interest); in the organization and planning of integrated management activities of this type of service; in the organization and planning of the property management service aimed at guaranteeing maximum operational efficiency with the dual aim of maximizing profitability and social impact. More generally, it is carried out in the management of the design, execution, operation and maintenance of civil works, with particular attention to the energy efficiency aspects of buildings and economic-management processes, in a regenerative perspective deriving from the optimization of resources.

3.6 The impact of social management on investment risk

The assertion that in the CREM the investor engagement element is represented by the return on an investment is obvious. However, in the last decade, social and environmental impact have become factors of attention in new forms of investments as in the case of impact investing. Although it is crucial for many companies to measure the impact of these forms of investment, procedures and procedures are still being tested

According to Forbes (2017), the process of determining impact investing takes place through the monitoring and constant monitoring of the intervention during the management phase of the real estate investment for social purposes. In the context of Social Housing, this requires linking the investment to the activity of the Manager and the series of actions able to create communities, to design and provide welfare services and technical skills for real estate management.

Although the result of the risk-return assessments is strongly influenced by the performance of the real estate market, policies, economic developments and management capabilities (Van der Schaaf and de Puy, 2001), it is possible to identify the investment risk management in the SREM. It is more efficient, the more the risk management entity finds himself working in contact with the community, in its capacity to realize welfare structures and to exercise direct control of services and results. Therefore, the relationship between risk and return in social housing interventions is a matrix that contains prevention and risk mitigation measures that include community welfare policies.

The design research related to social housing, experimented for decades in Europe, has produced indications on the formal practices and choices to be adopted to favor the achievement of social objectives, performance, sustainability of the intervention and quality of the residential area. The analyzes show how the most effective formulas provide for the joint management of real estate and social aspects by independent, private subjects, but with a public or philanthropic mission (Pavesi, 2011). Attention to social aspects contributes to favoring the risk-return balance of interventions. The expected return for social housing operations is very low when compared to other investment sectors and the Company is the figure to which is assigned part of the de-risking function of the real estate operation; it is in fact only through measures implemented by the Manager through their transversal skills, for the sustainability of fees, the management of arrears, the involvement of tenants in maintenance, that it is possible to obtain the maximization of profit useful to ensure the overall sustainability of the intervention.

4. Conclusion

The market and research in the Real Estate sector, together with research in the field of process quality, tell us that many processes have already been codified and translated into quality protocols and standards; the performance specifications, elaborated in the field of funded research, have been the object of long years of experimentation, application and improvement by research bodies, voluntary standardization bodies and trade associations, which have translated them into standards from which it seems impossible to disregard .

The natural evolution of an "engineering process" of the Cooperative Social Manager leads to the need to define in concrete terms a recognizable and scalable business model and a system of measurable performance and results, constituting a benchmark that can be evaluated by the stakeholders to whom it is addressed.

The research "The Cooperative Social Manager, infrastructure for social housing" has had among the main outcomes, that of creating awareness on the fact that social housing, included in the broader theme of the social regeneration of the built environment, represents a significant opportunity for the consolidation of the national network of cooperative entities, as well as for the creation of a unified standard of integrated management model able to act in a coordinated manner throughout the national territory, according to the needs of the FIA and even before in the interest of the service itself, in collaboration with the persons responsible for implementing the service, with investors and promoters of private social housing.

The specificity of cooperative management lies in the ability to horizontally combine the skills of Property, Facility and Community Management in a single entity that represents the link between property and tenants.

The basic idea is that an integrated Social Management can represent the real infrastructure of social housing on a national scale, to ensure the long-term construction and maintenance of local communities. This element, in addition to constituting an opportunity to produce widespread social value on the national territory, is a factor of safety for investors in the local funds. The functions that the Social Manager is called upon to carry out and the high performance standards are leading the Cooperation of Inhabitants to mature consideration of the need to act according to a homogeneous model of action, adaptable to different realities while being aware that the specificity and peculiarity territorial contexts imply "tailor-made" solutions, the result of a careful analysis of the context and its characteristics and of the ability to be the point of intersection and coordination of a network that comes from below.

All this is a result of the fact that in the construction industry for many years in Italy has invested in research, determining a virtuous circle in which from research, to dissemination has been passed to the application (through the practical verification of the design, construction and management processes), then returning to research and communication, in a continuous cycle, through the involvement of scientific sectors able to produce knowledge, quality systems, typological and technological systems, protocols, technical essays, manuals and scientific research in order to make a broader community of thought and actors dialogue and progress.

References

Avanzi 2016, Housing Sociale: le nuove sfide delle politiche abitative, position paper, available on www.avanzi.org

AA.VV. 2017, The State of housing in the EU 2017, Housing Europe, Brussels.

Burns, C M 2002, Analysing the contribution of corporate real estate to the strategic competitive advantage of organisations, working papers, available on www.occupier.org

Commissione Europea 2015, Le politiche dell'Unione europea Europa 2020: la strategia europea per la crescita, Bruxelles, Belgio.

Del Gatto, M L, Ferri, G, & Pavesi, A S 2012, 'The social manager as the guarantor of sustainability in Social Housing interventions', *TECHNE*, vol. 04, pp. 110-116.

Ferri, G, Pavesi, AS, Gechelin, M & Zaccaria 2017, 'Abitare Collaborativo: percorsi di coesione sociale per un nuovo welfare di comunità', *TECHNE*, vol. 14, pp. 125-138.

- Ferri, G, Zaccaria, R, & Pavesi, AS 2018, Cambiare l’Abitare Cooperando. Il Gestore Sociale Cooperativo infrastruttura dell’housing sociale e del welfare urbano, Bruno Mondadori, Milano
- “Three ways to quantify the Impact of a Real Estate Investment”, “Forbes”, 17 luglio 2017.
- Gibson, V 1994, Strategic Property Management: How Can Local Authorities Develop a Property Strategy?, Property Management, Vol. 12, No.3.
- Kaganova, O 2008, Integrating Public Property in the Realm of Fiscal Transparency and AntiCorruption Efforts, in Peteri, G., Finding the Money: Public Accountability and Service Efficiency through Fiscal Transparency, Budapest.
- Kilowatt, Avanzi, Sostenibilità per Azioni, Dynamoscopio & SuMisura 2016, COMMUNITY HUB I luoghi puri impazziscono? Community Hub come spazi di rigenerazione delle energie urbane, position paper, available on <http://www.communityhub.it>
- Krumm Peter, J.M.M. e de Vries J. 2003, Value creation through the management of corporate real estate, Journal of Property Investment & Finance, Vol. 21, No. 1.
- Pavesi A S, Cia G. & Del Gatto ML. 2018, Il Gestore Sociale: dalla finanza d’impatto al Real Estate Management, FMI Facility Management Italia, n.36/2018, pp.28-34.
- Van der Schaaf, P and de Puy, L 2001 CRE portfolio management: Improving the process, Journal of Corporate Real Estate, Vol. 3, No. 2.
- Viviani, M 2010, Abitante, Socio, Cittadino. Un sopralluogo sulla Cooperazione di Abitanti, CLUEB, Bologna.
- Zoli, M 2004, I sistemi di welfare state nei paesi dell’Unione Europea, LLEE website, LLEE Working Document no.1.
- White, A D 2011, ‘A review of UK public sector real estate asset management’, Journal of Corporate Real Estate, Vol. 13 No. 1.
- Yontz, W L 2001, Transformation of the real estate function into a corporate strategic business partner, Journal of Corporate Real Estate, Vol. 4, No. 1.

Towards an Integrated KPI Framework for Smart Cities

Katerina Prevelianaki

Anglia Ruskin University, Chelmsford, United Kingdom

(email: katerina.prevelianaki@anglia.ac.uk)

Fred Sherratt

Anglia Ruskin University, Chelmsford, United Kingdom

(email: fred.sherratt@anglia.ac.uk)

Lakshmi Rajendran

Anglia Ruskin University, Chelmsford, United Kingdom

(email: Lakshmi.Rajendran@anglia.ac.uk)

Christian Henjewe

Anglia Ruskin University, Chelmsford, United Kingdom

(email: Christian.Henjewe@anglia.ac.uk)

Abstract

Smart cities are a growing phenomenon. The desire for smartness is being driven by governments and societies alike, as they seek to mobilise technologies to support effective and sustainable urban centres. This paper presents the foundations in the development of an integrated Key Performance Indicators (KPIs) framework to guide and measure the construction of smart cities as a megaprojects, in and of themselves. Through a critical literature review, the measurement of ‘smartness’ is considered and potential factors for inclusion within a KPI framework are explicated and evaluated. Stakeholder perspectives considered include governments, industry and also the end users of such places, the city population, as their interactions and reactions to the smart city ultimately dictate its success or failure as a project. In taking this holistic perspective, an integrated KPI framework is better able to reflect the concept of the smart city as a ‘system of systems’, incorporating relevant dimensions from a variety of perspectives. Such an approach is also able to go beyond the adoption of ICT as a definition of ‘smart’ and instead draw on considerations of the material, social and experiential, as well as making evaluations of the extent and practicalities of governance support needed for the realisation of smart in practice.

Keywords: Smart City, KPI, Project Management

1. Introduction

In the 21st century most countries have experienced digitalization to varying extents. Technological advancements are the foundations through which this change is enabled (Monzon, 2016), a change after which a city can be called smart and by which it has embedded a more advanced and theoretically more efficient way for specific functions. In the past few years, the concept of the 'Smart City' has grown in interest within both academia and industry, with many researchers exploring and analysing the concept, and several world leaders bringing smart city initiatives to life. This has resulted in many cities adopting smart city applications - or planning to do so – and this increasing demand makes it now more obvious than ever that the 'Smart City' state is fast becoming a – not too distant - future goal for many countries on all continents. A few notable examples are Beijing (CN), Singapore, Manchester (UK), Trikala (GR) and San Francisco (US) who are building, developing and re-designing their current state to accommodate necessary changes. According to the UN Department of Economic and Social Affairs (2014), currently 54% of the world's population lives in cities, a percentage which is expected to increase to 66% by 2050. This indicates that both the smart city concept and its development has been catalyzed by the requirement to make the services and sources that cater to human needs more efficient as well as more resilient, and above all more sustainable. Therefore, in order to support human needs – especially in the face of climate change and ever increasing population density in big cities – it becomes essential that humans advance their cities to smarter ones, not only through industry-led developments, but also through robust research and academic investigation.

There are plenty of initiatives and efforts to create smart cities globally, yet a specific definition for the term has not yet been established, despite the many attempts of academics and other researchers or industry leaders. The smart city remains a rather vague concept, lacking an official widespread definition as Hollands (2008), Caragliu et al. (2009) and Vanolo (2014) all point out.

2. Literature Review

2.1 Defining the Smart City

In 2000, Hall defined a smart city as a city "that monitors and integrates conditions of all of its critical infrastructures, including roads, bridges, tunnels, rails, subways, airports, seaports, communications, water, power, even major buildings, can better optimize its resources, plan its preventive maintenance activities, and monitor security aspects while maximizing services to its citizens.". This early definition differs from those formulated in more recent years in terms of its focus on ICT, which is admittedly a vital part of the 'smartness' of the city. The reason why ICT plays such an important part in Smartness development is due to the fact that technological advancement and innovation is often seen as an 'enabler' of smart city applications rather than a component which ought to 'upgrade' along with the city smartness. Effectively this means that technology is used as a means or a vessel which will help reach the smart goal, as opposed to technology being the smart goal itself. A simple example would be to use innovative technology to create smart parking applications (technology is the means, the vessel), the smart parking application being the goal which will ultimately lead to a more efficient and sustainable parking system for the citizens of that city.

Chourabi et al. (2012) identified eight main areas on which we should focus to develop smart city initiatives: management and organization, technology, governance, policy context, people and communities, economy, built infrastructure and natural environment, these can be seen in Figure 1.