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## The use of collaborative digital platforms in the perspective of shared administration. The MiraMap project in Turin<sup>1</sup>

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**Keywords:** collaborative platforms, digital divide, digital PA, accountability, CIA.

**Abstract** The paper intends to illustrate an innovative approach to urban planning and shared Administration based on the use of collaborative digital platforms involving the Public Administration / citizen.

This perspective is expressed in the MiraMap pilot project in Turin, in the District of Mirafiori Sud, which has been drawn up by a research group of the Politecnico di Torino. The project implements and develops a previous experience carried out in 2013 (Crowdmapping Mirafiori Sud), the main purpose of which was to determine whether the use of ICT could generate and support processes of social inclusion.

Through the reading of the MiraMap process, of its objectives, of the methodology adopted, of its phases and lines of action, are highlighted the interdisciplinary and technical reasoning relative to: the structuring of relations with the institutions, in particular with the Public Administration, in the processes of planning and management of public space; the triggering of the processes of inclusion, participation and civic engagement; the identification of contributions that these trials can generate in the construction of a renewed urban governance. Lastly, this contribution outlines a possible methodology for monitoring and evaluation of ex-post impact, based on Community Impact Assessment/Evaluation (CIA/CIE), that evaluates in a descriptive manner the impacts - monetary and non-monetary - that have derived from the project in relation to the various actors involved.

The use of ICT can foster the process of transparency and strengthen the accountability of the Public Administration, provided that the technology is an enabling factor and one of exclusion. The detailed analysis of the case provides ideas for reflection on this innovative approach: the citizen/PA relationship can contribute in the medium-long term to conveying positive socio-economic impacts on the territory, making the citizen more informed and involved and the Administration more responsible, conscious of the needs "from below" and able to facilitate and activate inclusive processes and micro-projects throughout the territory.

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<sup>1</sup> The present writing is attributed in equal parts to two authors, but in particular: Cristina Coscia was responsible for sections relating to the monitoring and evaluation (CIA method), and the final conclusions and future developments, Francesca De Filippi was responsible for sections relating to the paradigm Smart City, the collaborative maps and MiraMap project, while Cristina Coscia and Francesca De Filippi were responsible for the Introduction.

## INTRODUCTION

The present contribution aims at exploring an innovative approach in the context of the processes of urban planning of the governance of the territory and of the shared management of common goods, assuming the prospect of city users through their active involvement, facilitated by the use of a collaborative digital platform (De Filippi *et al.*, 2016).

One of the critical aspects, however, often highlighted in the use of such instruments is that the *smart city* normally implies the presence of people willing to adapt and be placed in the landscape of the intelligent city: there is only minimal space left to the technologically illiterate, the poor, the marginalised; it is the subject citizen to be responsible for his or her own capacity to adapt to the change underway (Eupolis, 2013).

These issues are addressed and investigated starting from the case study, the MiraMap project, coordinated by the authors of this paper: it concerns the experimentation, thanks to the availability of the new 2.0 technologies, of a PA/citizen cooperation model in the process of surveying and analysis of the needs, of programming of the interventions, of the valorisation of the resources, of the design of the services (Manzini, 2015), of the governance of the territory. The project follows the path of a previous experience carried out by the research group in 2013 (Crowdmapping Mirafiori Sud), whose main purpose was to verify if the use of ICT could be “enabling” in promoting social inclusion.

Through the reading of the MiraMap process, of its objectives, of the methodology adopted, of its phases and lines of action, are highlighted the interdisciplinary and technical reasoning relative to: the structuring of relations with the institutions, in particular with the Public Administration, in the processes of planning and management of public space; the triggering of the processes of inclusion, participation and civic engagement; the identification of contributions that these trials can generate in the construction of a renewed urban governance (Silva, 2010; Haklay, *et al.*, 2008). The paper seeks to demonstrate how the structure of the process, its methodology and the support of the new 2.0 technologies of MiraMap have played an essential role in addressing, in an inclusive manner, the complexity and the dynamics of urban development. In addition, the system of monitoring and evaluation adopted for assessing the impact of MiraMap on the territory of Mirafiori Sud has been instructed and described: there is a breakdown of the application phases of the qualitative-quantitative technique derived from the Cost-Benefit Analysis (CBA), known as Community Impact Assessment/Evaluation (CIA/CIE). In light of such content, the paper is divided into 5 sections: the first introduces the general theme, but located at the centre of recent debates, of the Smart Cities, of the use of new technologies and of the policies and actions in the international and national arena to reduce the digital divide. The second section the contribution of technological development is circumscribed to the field of representation of urban space and the variety of descriptive forms of the territories and to the applications of collaborative platforms born in recent decades. This review leads to section 2, entirely dedicated to illustrating in detail a real case of application of a collaborative platform, MiraMap, tested on the territory of Mirafiori Sud in Turin. Lastly, the conclusive sections illustrate the following topics: evaluation of the impacts - not only monetary - of the project through the application of the qualitative-quantitative CIA (Community Impact Assessment) Method. In conclusion, are illustrated some critical observations on future developments of the project and on lines of research to be explored.

## THE SMART CITY PARADIGM: INTERNET, NEW TECHNOLOGIES AND THE STRUGGLE AGAINST THE DIGITAL DIVIDE

Internet is often defined as the key support of a collaborative and inclusive economy (Rogers, 2010). In 2011 Frank La Rue (La Rue, 2011), on the occasion of the General Assembly of the United Nations “*on the promotion and protection of the right to freedom of opinion and expression*” describes the Internet as one of the most powerful tools of the 21st century for the ability to enhance transparency in the management of power and in access to information as well as encouraging the participation of citizens in the building of a democratic society. The spread of the Internet, however, as well as open source technologies, has led to the emergence of risks and issues that were previously non-existent, and it also demonstrated how technology is not neutral, but is instead an instrument of power, economic or political. If, on the one hand, the positive impact on the reduction of costs of aggregation of information and the encouragement of participation and advocacy can be considered as positive, on the other hand, issues such as privacy, data management and the safety of persons are only some of the themes that animate the current debate on the use of new technologies and on the digital divide that they tend to encourage (Geertman *et al.*, 2015).

ISTAT data (ISTAT, 2014 and 2015) show that in Italy there is still a strong infrastructure gap with respect to the network society: Internet access is available for an average of 64% of Italian families and 62.7% possess a broadband connection.

The data show a general strong cultural digital divide: most of the families who do not have access to the Internet at home indicate as the main reason for not using the network the inability to manage this technology (Warschauer 2004; DESI, 2016).

There is also the evidence of a strong generational gap: families with at least one minor are the most technologically equipped: 87.1% of them possess a personal computer, 89% have access to the Internet at home. The largest group of users of the personal computer and the Internet therefore remain youth aged 15-24. At the opposite end are families of only elderly people over 65: just 17.8% of them possess a personal computer and only 16.3% have a connection for surfing on the Internet.

Between 2013 and 2014, for some technological devices, the gap is reduced among the families in which the head of the family is an executive, an entrepreneur or a self-employed professional and those in which there is a worker. Rather, there are still strong gender differences: 59.3% of the men use the personal computer against 50.2% of the women, while 62.3% of the men and 52.7% of the women surf the web.

As regards specifically the access to the sites of the Public Administration, there is a slight increase in the proportion of users who access it to obtain information: 29.8% of the Internet users, an increase from 28.5% in 2013.

Italy, like the other EU Member States, is trying to transpose the European Digital Agenda in the EU2020 perspective (Europe 2020 Strategy, 2010). Despite the obvious delay and the profound differences between the various geographical areas, the country is implementing its own national strategy, with city-wide projects and laboratories (Council Presidency, 2014), having identified priorities, methods of intervention, actions to be carried out and measured, on the basis of specific indicators, to reduce the Digital Divide (Figure 1). In the same way that the Digital Agenda constitutes an important tool for the future development of the cities, likewise, the metropolitan areas, node of economic and social development and the place of delivery of services to a broad category of city users, play a fundamental role in ensuring the success of its application.

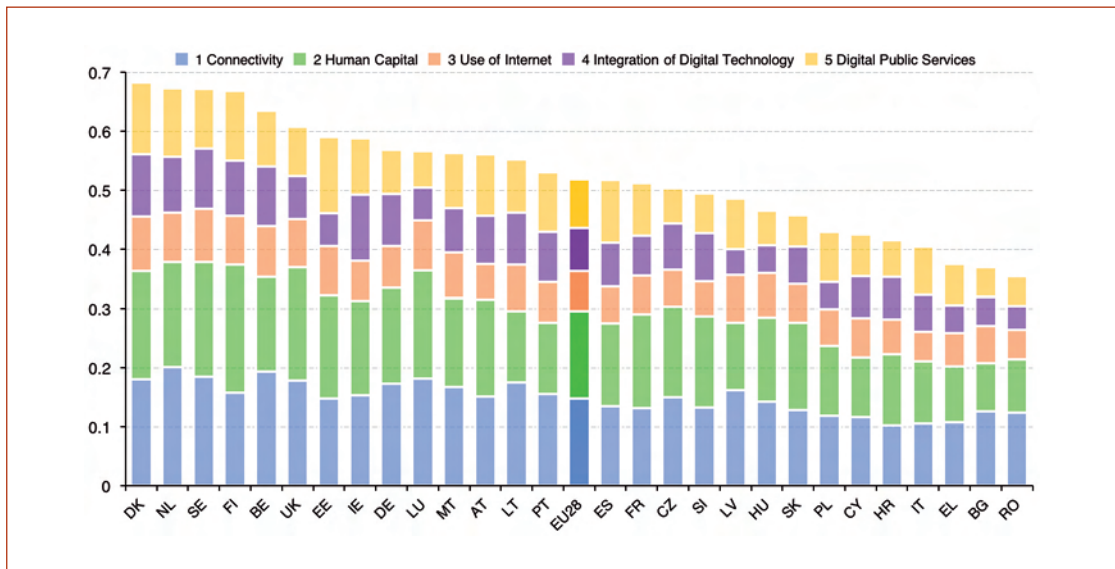


Figure 1 DESI (Digital Economy and Society Index) ranking 2016 - Fonte: <https://ec.europa.eu/digital-single-market/desi>

The Italian reference framework is very inconsistent therein: some cities are able to boast a more than ten-year commitment - in terms of investment and result - in the digitisation of services linked to the PA; others only recently have begun to understand the potential offered by ICT in fostering innovation, “inclusive, intelligent and sustainable” growth and transformation of the city itself (Calzada *et al.*, 2015).

A positive element is represented by an increase in the availability of resources, after years of shrinking investments, such as those made available to the wider metropolitan areas of the PON Metro programme: 140 million Euro for the metropolitan Axis Digital Agenda, distributed to all the provincial capitals. In responding to this challenge, the Italian cities are facing common themes, since services queries and skills are analogous throughout the country.

Playing anything but a marginal role in the context of the debate on the smart city are the citizens, the *smart citizens*. As A. Caragliu argues (Caragliu *et al.*, 2011), the urban “performance” of a city currently depends not only on the provision of material infrastructures (physical capital), but also and increasingly on the availability and quality of the communication of knowledge and of social infrastructures (human and social capital). The latter form of capital is a key factor in improving urban competitiveness.

### Collaborative maps in the representation of urban space

In the last decade technological development has significantly altered the process of map production, therefore of the very representation of the city. Thanks to the availability and use of software such as Open StreetMap or Ushahidi there has been growth and consolidation in the Web of collaborative mapping, a voluntary activity of mapping collectively produced by a multitude of neocartographers and neogeographers of the urban space (Haklay, Singleton and Parker, 2008; Graham, 2010).

It is Michael Goodchild, in his famous article “Citizen as Sensors. The world of volunteered geography (Goodchild, 2007) to define the term of VGI (*Volunteered Geographic Information*) as the phenomenon that features the participation of experienced and inexperienced users in the construction of cartographic knowledge. This is, according to the author, a form of the broader phenomenon of *User Generated Content*, both for the way in which information is produced, and for the extent of the phenomenon (Eupolis, 2013).

Even Andrew Turner describes the phenomenon of Neogeography in this way: “essentially made by people who use and create their own maps in their own ways, by combining the elements of a series of available tools. Neogeography means sharing one’s location with friends and visitors, helping to characterise the context, and building collective expertise through knowledge of the places” (Turner, 2006).

Beyond the definitions, it is without doubt a reality that there is an increasing spread of a variety of representative and descriptive forms of the territories which assumes as central element not only the product (map), but those who produce it - the multitude (crowd) - and how (outsourcing). The map becomes an active and generative space, in continuous and constant evolution, host of a variety of languages (texts, images, videos, sounds, etc.) in continuous interaction and change, the result of a diversity of experiences and knowledge of different ways and models of living and moving through the space, transforming it.

Crowdmapping is configured as a new form of cartographic representation of the collective type, where social activism, citizen journalism and geo-referenced information converge.

The many, diverse and growing experiences in this direction (for example, Improve My City, FixMyStreet, ePart, Changify), introduce and present to the world of research some questions:

- how to structure the relationship with the institutions, in particular the Public Administration, in the processes of the planning and managing of the space;
- how to implement the processes of inclusion, participation and civic engagement;
- what contribution these trials can bring to the construction of a renewed urban governance.

## **THE MIRAMAP PROJECT: METHODOLOGY, PHASES OBJECTIVES AND LINES OF ACTION**

The issues mentioned above introduce the theme that will be more specifically addressed in the article, starting from the case study: the MiraMap project.

It concerns the experimentation, thanks to the availability of the new 2.0 technologies, of a model of PA/citizen cooperation in the process of surveying and analysis of needs, programming of the interventions, valorisation of the resources, design of the services (Manzini, 2015), of governance of the territory.

The use of ICT can foster the process of transparency and strengthen the accountability of the PA (Björn-Sören G., Bailur, S. 2014), on the condition that the technology is an enabling factor and not one of exclusion: all groups of the community must be involved in the process, from the digital natives to the digitally illiterate, not neglecting the most vulnerable groups.

An innovative approach in the citizen/PA relationship can contribute in the medium-long term to making citizens more involved and informed and the Administration more responsible, aware of the needs “from below”, transparent and able to facilitate and enable inclusive processes and micro-projects in the territory.

The MiraMap project is structured in the path of a pilot experiment conducted in 2013 by the research group of the Politecnico di Torino, aimed at testing the processes of social innovation by an inclusive use of new digital technologies. The Crowdmapping Mirafiori Sud pilot project, realised thanks to a 5x1000 financing for student projects of the Politecnico di Torino, has produced, over a six month period, participatory mapping (crowdmapping) on a sample area of Turin, involving specific target groups of the population belonging to the most vulnerable segments of society (the elderly, persons with disabilities who live alone) in the identification of problems of accessibility and availability of public spaces (De Filippi and Pantanetti, 2014).

Crowdmapping Mirafiori Sud, the only Italian project to have been awarded, with the SiforAGEPrize, recognition established within the framework of the homonymous European project of the VII Framework Programme, which aims at strengthening the mechanisms for cooperation between stakeholders - scientists, end users, civil society, public administrations and businesses - that operate to promote social inclusion of the most vulnerable groups.

The workshop area, both during the pilot phase and in the subsequent implementation, is Mirafiori Sud, in District 10, district located in the south-west quadrant of Turin. The City, that supports the project as experimentation in line with the indications of Turin Smart City, is concerned with evaluating the replicability of the method and application in other areas of the city and the possible scalability to the metropolitan area.

The choice of the location is to be found in its history and current configuration, in particular, the composition of the inhabitants. The district, symbol of the Italian motor city during the economic boom thanks to the presence of the FIAT plants and subsequently downgraded because of the crisis of the labour market and the new productive geographies, in the next few years will be the subject of urban transformations with very high potential for economic and social development.

From the social point of view, Mirafiori Sud presents itself as a district that is extremely heterogeneous due to the very high percentage of foreigners, but not for the age of its inhabitants, whose average age is very high.

With reference to the ISTAT data (last census 2011), the proportion of foreign residents in the district is 8.9% of the total district population and 3% of the city population. From the same census data, it emerges that the area is also characterised by a low population density with a population of approximately 38,000 residents, 4.3% of the total population of Turin. Particularly significant is the age distribution. The old age index is equal to 230.3% on a city average of 202.7%: 51.6% are the inhabitants between 20 and 59 years and 18.5% between 60 and 74 years.

An aspect that characterises Mirafiori Sud is the propensity for active participation in the life of the district, also thanks to the presence of the Fondazione di Comunità Onlus, a non-profit organisation that supports and accompanies the inhabitants and local associations in the promotion of local development projects.

All the aspects mentioned above, as we shall see, have proven to be fundamental for the success of the project.

The crowdmapping of Mirafiori was performed using Ushahidi, open source software developed in Kenya in 2008 to map the cases of violence in the post-election period, and since then, widely used in crisis mapping by international organisations engaged in post-disaster and post-conflict humanitarian interventions (e.g. in Haiti, Chile, Japan, Australia, the USA, the Balkans, Italy, etc.) to geo-locate data via remote in a timely manner, even without an Internet connection (Hagen, 2011).

The citizens of the district, involved since the initial phase of the process - through interviews, public assemblies, focus groups, transect walks - have defined, with the research group of the Politecnico di Torino, the relevant categories for the mapping (green areas, pedestrian crossings, routes, etc.), of which have been defined the priorities and which were finally structured into groups of homogeneous items, consistently with the personnel of the administration of District 10.

The Ushaidi platform has permitted to identify, categorise and report in a timely manner the nature, location and consistency of some problems - in this specific case, the physical and cultural barriers - that prevent the vulnerable categories from moving through and living with quality in the spaces of the district. Through campaigns of mapping, the indications were then sent by citizens through mobile phones or the Internet and transformed into points on a geographical map, building a temporal and geospatial archive of the events.

The product of the mapping at Mirafiori was made available online and submitted to citizens and public decision-makers in order to highlight and communicate issues of the district, favouring a point of view from below and as much as possible shared (Figure 2).



**Figure 2** The collaborative platform of Mirafiori Sud: the pilot phase of Crowdmapping Mirafiori Sud.

Source: [www.polito.it/mapmirafiorisud](http://www.polito.it/mapmirafiorisud)

Once the appropriateness and the functionality of the method has been verified, the second phase of the project, hereinafter called MiraMap, was dedicated to creating the programmatic and technical conditions for the involvement of the PA - at the scale of the district and metropolitan area - as an active subject in the process, in a more transparent dialogue with the citizens in the construction of a more widely shared vision of the management of public spaces, as well as to orienting the planning of public interventions and promoting forms of collaboration between the inhabitants.

The objective of the second phase was therefore to develop a collaborative platform that might test a new citizenship/PA relationship, assigning to both a proactive role.

The MiraMap project has involved, in addition to the DAD Department of the Politecnico di Torino, District 10, the Fondazione di Comunità di Mirafiori, the Computer Science Department of the University of Turin.



The composition of the Partnership (PA, Academia, Fondazione di Comunità) and the accompanying procedures ensure sustainability and process innovation by integrating the public perspective, research and development of projects in the territory. Academia studies both the participatory methodology and evaluation of social impacts (Politecnico di Torino), and the informatics architecture of the platform (Politecnico di Torino with the University of Turin); the Fondazione di Comunità has the capacity of local involvement in the project; the PA has political and decision-making competence over the territory.

Thanks to the integration of the technology in the administrative process, the management of the indications by the citizens enters into the current workflow entrusted to SportelloPIU', becoming an occasion to verify some quality processes of the PA and to facilitate information and participation. The outcome of the process also allows rationalisation of the public resources, involving them in shared micro-projects, encouraging collaboration and direct involvement of the inhabitants.

Thanks to the model of shared Administration, in fact, founded on the alliance between citizens and administrations and made possible thanks to the adoption by many municipalities (to date around 60 throughout Italy, and in the process of being adopted by another 80) of the "Regulation for cooperation between citizens and the Administration for the care and the regeneration of common goods", we are moving toward a substantial change of paradigm in the model of management of common goods (Ostrom, 1990): from bipolar (administrators/administered) to collaborative (new alliances between public, private and the Third Sector actors).

The Regulation, developed by Labsus together with the Municipality of Bologna (2014), constitutes the first "translation" of the constitutional principle of subsidiarity in the provisions at the administrative level, that local authorities and citizens can use to establish Pacts of Collaboration for the care, regeneration, management and reuse of common goods.

As regards the digital toolkit, in the case of MiraMap it is an integrated system consisting of: an open license digital platform (FirstLife), capable of processing the data of the signalling by the citizens through a dedicated back-office software system (BPM - Business Process Management) an Arduino hardware system for receiving centralised signalling, to be performed through multiple modes (smartphone, terminal, SMS, phone message, mail); finally, an interactive web site functional to process monitoring, consultation and dissemination (Figure 3).

The inclusiveness of the MiraMap project not only is guaranteed by the possibility for the citizen to use multiple devices; it includes a process of digital literacy in the use of the platform by the social groups who have been less involved in technological progress as well as training and accompaniment of the Public Administration. Moreover, MiraMap, by providing a collaborative process between "social innovators" and community, aims at creating digital competence in those subjects who are active but not experts in the use of the technologies (the "digital illiterates") and at the same time offering an instrument of active participation in all those subjects that use the technology of smartphones and the Internet on a daily basis (the "digital natives"), but are less present as active citizens.

As for the pilot phase, the MiraMap platform collaborates with all the phases of the participatory process, acting as the repository of the information signalled also during the phases of direct interaction, and not only digital, with citizens: walks (transect walks), meetings with associations present on the territory, public presentations.

Medium-long term objectives that the project identifies are those of proposing a model of administrative sustainability that may be replicable, through:

- the simplification and transparency of the process of management of the signal data;
- the creation of a “smart” system at low cost, accessible and inclusive;
- the ideation and the improvement through applicative experimentation of a working methodology that can involve representatives of civil society of Public Administration and local associations from the early stages, *i.e.*, from the identification of the problems and their categorisation;
- the building of interest and capacity on the territory of the use of the new technologies for identification, mapping and monitoring of the elements (punctual and systematic) connected or influential on existing or potential problems;
- the ability, on the part of all the actors involved, to consult their data promptly and intervene with solutions, offering an accessible and rapid response to the signalling received (contributing to the building of transparency and accountability of the institutions involved);
- the availability of an instrument to support decisions, not only for the solution of specific problems, but also and especially for the planning and design of interventions at the district and territorial scale, by integrating the bottom-up approach, *i.e.*, involving citizens as active subjects in the co-design of micro interventions on the territory (Linders, 2012).

Finally, the evaluation process tested for the case, as described extensively further on, is based on the evaluation of impact: it is carried out with matrices of the achievement of the objectives with respect to their expected output from the project and with the Community Impact Assessment method (family of the Cost-Benefit Analysis) that descriptively evaluates the impacts arising from the project - monetary and not - in relation to the various actors involved.



Figure 3 The collaborative platform of Mirafiori Sud: the implementation phase of MiraMap

Source: [www.miramap.it](http://www.miramap.it)

## MONITORING AND EVALUATION PROCESSES: THE TESTING OF THE CIA METHOD

Among the innovations introduced in the Crowdmapping Mirafiori Sud project, converged into the redesigning of MiraMap, this paper investigates and illustrates the processing of a structure of monitoring and evaluation, not so frequently explored in the disciplines of the evaluation of the projects and of the processes linked to collaborative platforms. In fact, on the Crowdmapping pilot project was tested *ex post* the application of the technique of Community Impact Assessment /

Evaluation, method of evaluation of the impacts of the projects, which has never been tested, at least in its traditional form, for the field of collaborative platforms (Coscia and De Filippi, 2016). To this day there is the reconfiguring of this method on MiraMap, in *ex ante* mode and on-going.

The simulation starts from the assumption that in such processes it is strategic to structure also the phases of monitoring and assessment of the effects on the subjects involved and on territorial and administrative levels (Curto *et al.*, 2014).

It is well-known in the literature that methods for the assessment of projects and processes of a mainly public and social nature are traditionally classified substantially in monetary and non-monetary techniques (Brigato *et al.*, 2010; Fusco Girard, 1997): the themes of the activities and actions supported by on-line platforms, aimed at inclusive strategies and management of common goods, reveal a complex nature, with characteristics, also qualitative ones, that are not easily quantifiable in monetary terms. The choice therefore, fell on the method of Community Impact Assessment / Evaluation (CIA/CIE), because among the methods for the evaluation of the project, as an evolution of the traditional Cost-Benefit Assessment (CBA), it is effective in overcoming the criticalities of the CBA and in assessing the impacts of policies and collaborative processes also in qualitative-descriptive terms, wherever it is important to bring out the intangible aspects and not merely the quantitative ones. This need for an evaluation approach has often been emphasised also in the European Community context in the workshop of the LivingLabs.

The research group of the Politecnico di Torino has limited itself to testing *ex post* only the analytical-descriptive phase of the CIA, which has led to the emergence of interesting aspects, with preliminary results that are in the course of analysis and redesigning for MiraMap: it is particularly well-suited for evaluating not so much the effects of a monetary nature, as much as the *ex post* impacts that the previous experience of Crowdmapping Mirafiori Sud - implemented in MiraMap - has had on the territory. In particular, even at the EU level, feedback is required in evaluative terms on the aspect, core research of MiraMap, on the proactive mapping of the players directly or indirectly involved in this process. The CIA, in this sense, responds to evaluative questions asked by the EU concerning the development of qualitative indicators for the “weighing” of the positive or negative effects of the process and of the project, differentiating them according to measurement scales consistent with the nature of the impact that they are evaluating.

The subsequent evaluation phase, *i.e.*, the Community Impact Evaluation (CIE), has not been applied, but it is expected to be carried out for phase 2 of MiraMap: it, in fact, allows the achievement of a result in terms of monetary and non-monetary impact, for example by means of an Environmental Impact assessment, an analysis of the Costs and Revenues or other suitable instruments to the case and of the nature of the impact that is being analysed, for each element considered (economic, financial, fiscal, environmental, social, cultural).

The CIA, applied in an experimental way to projects of collaborative platforms, always places increasing emphasis on the accountability of Public Administrations, on the aspects of inclusion on the use and effectiveness of ICT in support of these processes, on aspects having a social nature, on prior assessment aimed at stabilising the imbalances between the stakeholders (Proietti, 2015).

The technique consists in verifying *ex ante* and *ex post* the effects that a project will have on the territory and on the subjects in some way involved, thanks to the procedures for the qualitative-descriptive investigation and assessment envisaged by the preliminary step of analysis.

The CIA/CIE - as is known - owes to its creator, N. Lichfield (Lichfield, 1975) all experimentation and configuration, as well as the application to the sector of public policies and to the projects of territorial

transformation. In many of his writings (Lichfield, 1975, 1989, 1996) the structure of the method and its quantitative and/or combined phases were illustrated: 16 stages divided into 9 of Project, 2 of Analysis and 5 of Decision. This evaluational, decision-making structure has been revised in relation to the specific nature of the field of application: the workflow of the method is shown in Figure 4.

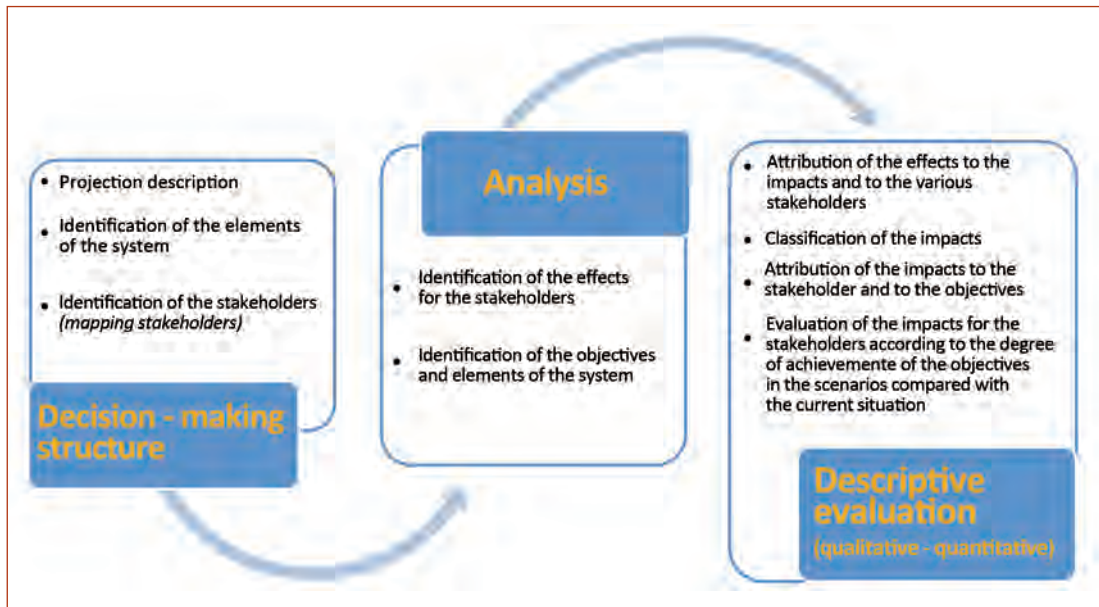


Figure 4 CIA: conceptual input-output map of the method Source: processing of the Authors

The final outcomes of the CIA do not provide a numerical evaluation, but draw up a very analytical descriptive diagram, useful for monitoring each step of the process, in which there are findings from the questions asked about Crowdmapping/MiraMap, considered central to all European agendas on digital Public Administration and on the actions of Inclusion for the Smart Cities: has the investment of resources (human and not only), of time and energy for the development of the project in Mirafiori Sud provided answers to the substantial improvement of the territory on which the project itself acts? Have the involved subjects had a return in improvement in the quality of life? Has the use of technology increased the efficiency of the effects of the project on the territory and on the stakeholders? Has the project increased the effectiveness of the administrative processes? Has it reduced costs and time? The answer to these questions takes place in the technical steps of the CIA: the translation of the sensitive problems/themes into strategic objectives to be pursued and subsequently into effects and impacts, the identification and mapping of the stakeholders, the prefiguration of scenarios weighed with different gradients on the basis of the degree of achievement of these objectives, evaluated according to impacts and stakeholders.

Starting from the qualitative outcomes of the final evaluation scenario "Final impact assessment" that characterise the CIA method and that have been applied to Crowdmapping, the next phase of the method (CIE) provides for the translation in evaluation terms of impacts, monetary and not, in order to support meta-project scenarios, as a base for the executive formulation of a series of interventions and actions of valorisation and co-planning with the inhabitants.

The application *ex post* on Crowdmapping Mirafiori Sud has followed the canonical structure of the method, but inserting some elements of innovation in the phases of: 1) mapping of the stakeholders

and of the respective sensitive issues (De Filippi *et al.*, 2016), 2) the identification of the general and sectoral objectives of the project for the stakeholders, subsequently weighed in terms of impact for the categories of stakeholders, 3) translation of the effects in the impacts with respect to community groups, 4) degree of achievement of the objectives of the Crowdmapping Mirafiori Sud project in relation to the impacts and the stakeholders.

Currently, on the basis of the results of the experimentation *ex post* of the CIA on Crowdmapping Mirafiori Sud, this method is in a phase of revision and developed so as to reapply it, but *ex ante* and on going, on the MiraMap evolution: the tool - in a re-interpreted version - will also allow for MiraMap to monitor and evaluate the emerging factors of a strategic nature of the process that accompanies the collaborative platform.

### **The CIA: the technical steps and results**

On the traces of the logical and methodological path formulated by Lichfield in his writing, there is the intent to highlight the technical and result steps of the experimentation, which are summarised below.

- 1) **Description of the project and presentation of the general process in which the plan is inserted.** In the process of monitoring and evaluation, a priority objective is to define the repercussions of the collaborative platform on the territory. It is configured as a tool for active dialogue between the PA and citizens also aimed at building proposals for participatory micro-planning of public spaces: it is inserted within a district that needs to regain its own identity and to be renewed under both the economic and social points of view. It was therefore thought of a development process that would lead the district to territorial redevelopment involving the inhabitants and making them protagonists of the project.
- 2) **Decision-making structure.** There are two significant methodological and technical steps: 1) *mapping of stakeholders* on-site and off-site, in the short- and medium-long term (see Table 1); 2) *identification of the elements of the system*.

In relation to point 1) the CIA considers all sectors on which the project has influence, disaggregating the collectivity into stakeholders. According to the indications of Lichfield, actors are divided into different groups mainly according to their different nature and role. A first macro group is that of “operators/producers”, *i.e.*, those who are active on the territory through development actions, or with entrepreneurial activities or services for the population; these in turn are differentiated into public and private. A second group is represented by consumers or passive subjects, *i.e.*, those who consume the goods and take advantage of the services and products; on them fall decisions concerning the territory in a passive manner. In the case study, in addition to the associations and citizens involved, the experimentation of the CIA on the project has seen the “public part” being given a strategic role, *i.e.*, the managerial framework (President and Director) and the technicians of District 10, the Fondazione di Comunità Mirafiori Onlus, who took an active part in the implementation and development of the whole project process. The evaluation of the impacts of the platform takes account of the framework of their requirements and needs (namely those of citizens with which they interact every day through the structure of SportelloPIU’), thus enabling the signalling process in the most efficient way possible. In the district, proactive subjects are the social-assistance associations, consumer and socio-cultural associations, whose activities find organisation into a system and coordination in the Foundation cited, which since 2008 (the year in which it was founded by the Compagnia di San Paolo and the Miravolante association) has deeply taken root in the territory of District 10: it knows the strengths and weaknesses of the district and helps to direct resources where they can have greater impacts.

ON-SITE		OFF-SITE	
OWNERS-PRODUCERS-OPERATORS		OWNERS-PRODUCERS-OPERATORS	
PUBLIC PRODUCERS	PRIVATE PRODUCERS	PUBLIC PRODUCERS	PRIVATE PRODUCERS
European Union	Builders	European Union	Builders
State	Craftsmen	State	Craftsmen
Piedmont Region	Retailers	Piedmont Region	Retailers
City of Turin	Tertiary sector	City of Turin	Tertiary sector
Mirafiori Sud	Businesses	Mirafiori Sud	Businesses
	Private bodies	Mirafiori Nord	Private bodies
	Associations - Cooperatives	Lingotto	Associations - Cooperatives
	Fondazione Mirafiori	Moncalieri	Fondazione Mirafiori
		Beinasco	
		Nichelino	

CONSUMERS		CONSUMERS	
Consumers - population		Consumers - population	
Inhabitants residents		Inhabitants residents	
Workers		Workers	
Inhabitants - owners		Inhabitants - owners	
Inhabitants - tenants		Inhabitants - tenants	
Tourists		Tourists	
Students		Students	

**Table 1** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: mapping of the stakeholders

*Source: processing by the Authors*

For point 2) they were structured according to the traditional scheme indicated by Lichfield in his numerous literature (Lichfield, 2013) (see Table 2):

- a. On-site
  - i. Population (residents, workers, tourists, students)
  - ii. Built environment and physical elements (soil, structure, natural resources, services, infrastructure and transport networks, telecommunications, buildings and workyards, open spaces, parking)
  - iii. Activities and uses (residential, productive, tertiary, commercial, cultural, scientific, recreation, consumption)
- b. Off-site
  - i. Physical and network linkages (transport, accessibility, urban services, circuits and networks)

Specifically, “on-site” corresponds to the administrative perimeter of the Mirafiori Sud district, being this territory subject to requalification and therefore interested in the effects of the project. “Off-site” includes the entire area of the municipalities and districts identified in the territorial analysis that lie outside the boundaries of the district. All studies and analyses were carried out according to the time setting of the CIA, which forces the analysis to individuate a temporal progression and the distinct phases of the processes in question: in the case of Crowdmapping/MiraMap the short-term refers to the pilot project having the duration of a year and a half; while the second period, for which the analysis was made, refers to the draft when it becomes fully operational, therefore by the second year: when the platform will have taken on its autonomy and when the signalling system will have become part of the territorial planning of the district. This is one of the aspects that have been implemented for MiraMap.

3) **Analysis.** This phase involves two application steps that are complex but strategic, since they are the hub for the final evaluation stage:

- 1) *identification of the objectives and elements of the system;*
- 2) *identification of the effects for stakeholders.*

This phase has been reinterpreted according to the circumstances of the case, but maintaining the structure indicated by Lichfield.

ELEMENTS OF THE SYSTEM		EFFECTS	
		In the short term (1.5 years) platform implementation	In the medium-long term (after 1.5 years) dissemination and full operation
<b>ON-SITE EFFECTS</b>			
<b>POPULATION</b>	Residents	Feeling part of and involved in the place where one lives To personally improve the place where one lives	Feeling part of and involved in the place where one lives To personally improve the place where one lives Increased confidence in the public administration
	Workers		Reduction of commuting, making the district a more liveable place
	Tourists		District more liveable and well maintained increase of the foreign population
	Students	Feeling part of and involved in the place where one studies To personally improve the place where one studies	Feeling part of and involved in the place where one studies To personally improve the place where one studies
<b>MANUFACTURE AND PHYSICAL ELEMENTS</b>	Soil	Reappropriation by the citizens of some parts of the city that are currently felt as unsafe	Benefits produced for the valorisation of the district and the elimination of deterioration
	Natural resources	Increase in their availability	Increase in their availability
	Cultural resources	Selection of the goods to be valorised increase in the visibility in the context	Selection of the goods to be valorised Economic benefits Integration among the initiatives Increase in the visibility in the context Increase in the number of visitors
	Services	Increase of improvements in services Limitation of inconvenience due to malfunctions or poor maintenance	Increase of improvements in services Limitation of inconvenience due to malfunctions or poor maintenance
	Infrastructure and transport networks	Improvement of transportation and limitation of inconvenience due to malfunctions or poor maintenance	Improvement of transportation and limitation of inconvenience due to malfunctions or poor maintenance
	Telecommunications	Incentive for training on the use of new technologies	Incentive for training on the use of new technologies
	Buildings and construction sites	Limitation of inconveniences due to construction sites and the unauthorised private building on public soil	Limitation of inconveniences due to construction sites and the unauthorised private building on public soil
<b>ACTIVITIES AND USES</b>	Residential		Increased real estate values
	Productive	Creation of synergies between businesses	Creation of synergies between businesses
	Tertiary	Creation of synergies between businesses	Creation of synergies between businesses
	Commercial		Increase in commercial activities due to better liveability of the district
	Cultural-scientific		Increase in cultural activities and their users creating synergies between the activities
	Recreation	More proposals of new activities	Creating activities and synergies between them
	Consumption	Increase in commercial activities	Increase and possibility of development of new commercial activities

ELEMENTS OF THE SYSTEM		EFFECTS	
		In the short term (1.5 years) platform implementation	In the medium-long term (after 1.5 years) dissemination and full operation
<b>OFF-SITE EFFECTS</b>			
<b>LINKAGES</b>	Transportation	Increase of use due to the improvement of the service Increased mobility	Increase of use due to the improvement of the service Increased mobility Increase of visitors
	Accessibility		Improvement of the visibility of the district in the eyes of the city
	Administrative services	More and better dialogue with the administration	More and better dialogue with the administration Increased confidence in the public administration
	Circuits and networks	Winning project of SforAGE	Possibility of inclusion and participation in European competitions

**Table 2** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: identification of elements of the system

*Source: processing of the Authors*

An element of innovation in the application has been assumed in the identification of the objectives that the project must pursue and through which it must be evaluated in terms of impact for stakeholders. In fact, starting from the priority guidelines that for years have been foundational for access to the European Structural Funds, 9 strategic objectives have been extrapolated:

- Objective\_1: **Contextualisation** - the ability of a project to immerse itself in a territorial context;
- Objective\_2: **Reversibility** - the ability of the project to not produce non-reversible alterations of values having a long duration;
- Objective\_3: **Processuality** - the ability of a project to build, activate and facilitate the processes and the potential of a territory;
- Objective\_4: **Cooperation** - the ability of a project to introduce and activate dynamic social processes of communication and local conditions;
- Objective\_5: **Innovation** - the ability of a project to introduce innovative elements developing culture, knowledge, forms, resources in new ways;
- Objective\_6: **Attractiveness** - the ability of a project to enhance the good by proposing functions and activities to meet the needs of the current demand and to allow the good to become a pole of attraction for a potential and future demand originating from a wider territorial basin;
- Objective\_7: **Sustainability** - the ability of a project to trigger impacts and positive effects on the context and to ensure minimum quotas of financial and cash flows and funding from public and private subjects;
- Objective\_8: **Inclusion** - the ability of a project to integrate the good in a network and collaborate with cultural, tourist and economic activities in the territory;
- Objective\_9: **Democratic participation.**

Tables 3a to 3i present one of the crucial steps of the Analysis phase: the complete overview of the qualitative evaluation of the collaborative scenario of the Crowdmapping platform. It is assessed in terms of its degree of achievement of the 9 strategic objectives just described or in its positive capacity to reach the stakeholders in the short and medium-long term and on-site and off-site. To this end, in Tables 3a to 3i are highlighted in light blu colour the groups with a degree of greater involvement for the achievement of that specific objective, always within the scenario outlined by the Crowdmapping project.



**OBJECTIVE 1 - CONTEXTUALISATION** - Capacity for a project to immerse itself in a territorial context. Platform aimed at being inserted in the process of urban planning also thanks to the active participation of the citizens

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundations	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundations	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundations	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundations	Residents Workers Tourists Students

**OBJECTIVE 2 - REVERSIBILITY** - The ability of the project to not produce non-reversible alterations of values having a long duration. Platform aimed at improving the liveability of the district

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundations	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundations	Residents Workers Tourists Students

Tables 3a and 3b

**OBJECTIVE 3 - PROCESSUALITY** - The ability of a project to build, activate and facilitate the processes and the potential of a territory. Support platform for the public administration for better governance of the territory

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students

**OBJECTIVE 4 - COOPERATION** - The ability of a project to introduce and activate dynamic social processes of communication and local conditions. Creation of collaboration between citizens and between citizens and the Public Administration

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students

Tables 3c and 3d

**OBJECTIVE 5 - INNOVATION** - The ability of a project to introduce innovative elements developing culture, knowledge, forms, resources in new ways. Platform that will encourage the training in the new technologies. Platform that will encourage the training in the new technologies

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students

**OBJECTIVE 6 - ATTRACTIVENESS** - The ability of a project to enhance the good by proposing functions and activities to meet the needs of the current demand and to allow the good to become a pole of attraction for a potential and future demand originating from a wider territorial basin. Objective of the platform is to make the district more liveable and maintained so as to have good visibility from the outside

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPOLAZIONE		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students

Tables 3e and 3f

**OBJECTIVE 7 - SUSTAINABILITY** - The ability of a project to trigger impacts and positive effects on the context and to ensure minimum quotas of financial and cash flows and funding from public and private subjects

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students

**OBJECTIVE 8 - INCLUSION** - The ability of a project to integrate the good in a network and collaborate with cultural, tourist and economic activities in the territory. Relation of the project for the valorisation of the territory with other districts, cities.. in a network of cooperation and interaction

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMATORI	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students

Tables 3g and 3h

**OBJECTIVE 9 - DEMOCRATIC PARTICIPATION** - Platform that involves the active participation of the community

IN THE SHORT TERM (1,5 years)				IN THE MEDIUM-LONG TERM (>2 years)			
ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS	ON-SITE	OWNERS-PRODUCERS OPERATORS		CONSUMERS
	PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION		PUBLIC PRODUCERS	PRIVATE PRODUCERS	POPULATION
	E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students		E.U. State Region City Mirafiori Sud	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students
OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students	OFF-SITE	E.U. State Piedmont Region City of Turin Mirafiori Sud Mirafiori Nord and Lingotto districts Municipalities of Moncalieri, Beinasco and Nichelino	Builders Craftsmen and retailers Tertiary sector Companies Private bodies Associations Foundation	Residents Workers Tourists Students

**Table 3i** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: identification of strategic objectives and the stakeholders involved in their pursuit. *Source: processing of the Authors*

4. **Descriptive evaluation (qualitative and quantitative).** This is the final technical step of the qualitative and quantitative evaluation that establishes the final analytical phase, which could find a subsequent quantitative translation in the CIE (Community Impact Evaluation). The experimentation has structured and applied the three technical steps already mentioned

1) *attribution of the effects to the impacts and to the various stakeholders*, 2) *classification of the impacts and attribution of the impacts to the stakeholders and to the objectives* and 3) *evaluation of the impacts for the stakeholders according to the degree of achievement of the objectives in the scenarios compared with the current situation.*

For Crowdmapping Mirafiori Sud, the effects of the impacts were related, comparing the latter for the different sectors and examining the way in which the impacts - identified according to a standard classification - have affected the stakeholders, as well as how each sector considered that the quality of the proposals has amended its own welfare, increased the quality of life and improved the territory in question. The classification of the impacts involves a subdivision into three classes of impact, on the basis of their nature:

**a. Monetary**

- i. Financial impact (F) - the costs and revenues associated with new and old activities of the territory subject to investigation that may also have off-site implications. They are linked to the funding from operators acting on the project;
- ii. Fiscal impact (FIS) - is determined by the tax advantages both for individuals and for the public;

**b. Monetary - non-monetary**

- i. Economic impact (E) - redistribution of income on public and private subjects;

**c. Non-monetary**

- i. Social impact (S) - involves public and private actors, is intangible and creates social prestige, sense of community, places of work and improvement of public services;
- ii. Cultural impact (C) - concerns the cultural effects derived from the “production of culture” by developing new knowledge tools and new cultural poles;
- iii. Environmental impact (EN) - involves public and private subjects, concerns environmental requalification and is closely connected to regeneration and restoration. It involves public spaces, the built environment and is connected to the actions of improvement of the quality of life.

As a result of the classification operation, Tables 4.1, 4.2, 4.3, 4.4 analyses the nature of the impacts for each stakeholder on-site and off-site, during the period of the pilot project (1 year and a half) and during the period of the project in full operation (from the second year onwards). Usually the evaluation is carried out through an objective-by-objective analysis: in the experimentation an element of the revision of the method was introduced, separately analysing the stakeholders so as to make it easier to read the impacts that involve them in relation to the 9 objectives identified, as a sort of 9 micro-scenarios of the project. In particular, Table 4.1 shows which impacts in the short term (1.5 years) and “on-site” that the Crowdmapping Mirafiori Sud/MiraMap platform has generated, leading them to the stakeholders involved and comparing them to the prevailing strategic objectives for that specific impact. Table 4.2 presents the same steps of analysis, identification and description of the impacts but on a perimeter of enlarged analysis, *i.e.*, “off-site”. Similar analyses were reported in Tables 4.3 and 4.4: in this case, however, the scenario is analysed at full operation, in accordance with a medium-long term (*i.e.*, over 2 years) both “on-site” and “off-site”.

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PILOT PROJECT (1.5 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PUBLIC</b>						
<b>Mirafiori sud</b>						
<b>Objective 1:</b> CONTEXTUALISATION				Improvement in the quality of life of the district	Improvement of the conditions of the cultural heritage	Requalification of the green areas
<b>Objective 2:</b> REVERSIBILITY				Better quality of life	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Objective 3:</b> PROCESSIONALITY				Better and greater visibility of the public administration in the eyes of the citizens	Greater interaction citizens - administration	
<b>Objective 4:</b> COOPERATION				Creation of new synergies with the population		
<b>Objective 5:</b> INNOVATION				Investment in training for the use of the new platform		
<b>Objective 6:</b> ATTRACTIVENESS				Investment in training for the use of the new platform		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>PRIVATE</b>						
<b>Fondazione Mirafiori Sud</b>						
<b>Objective 1:</b> CONTEXTUALISATION	Provision of funding for the implementation of the project and of the platform	—	—	Relationship with the public administration facilitated	—	Environmental requalification
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 4:</b> COOPERATION				Closer collaboration with the citizens. Greater cultural stimuli		
<b>Objective 5:</b> INNOVATION	Provision of investments for technological training	—		New training opportunities	Increase of the cultural offer	
<b>Obiettivo 7:</b> SUSTAINABILITY	—	—	—	Better liveability of the district with a platform almost at 0 cost		

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PILOT PROJECT (1.5 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Residents</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	Greater involvement of residents concerning problems, opportunities and positive realities of the district	—	
<b>Objective 2:</b> REVERSIBILITY		—	—		Greater possibility by residents of contributing to an improvement of the cultural offer	Greater possibility by residents of contributing to requalification of the public spaces
<b>Objective 4:</b> COOPERATION				Greater collaboration between citizens. Creating a tighter network	Greater incentives for cultural growth	
<b>Objective 5:</b> INNOVATION		—		New training opportunities	Increase of the cultural offer	
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Possibility to actively participate in the improvement of one's own district	Possibility to actively participate in the improvement of the cultural offer	Possibility to actively participate in the improvement of the public spaces
<b>Workers</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	Greater involvement of workers concerning problems, opportunities and positive realities of the district		
<b>Objective 2:</b> REVERSIBILITY		—	—			Greater possibility by workers of contributing to requalification of the public spaces
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Possibility to actively participate in the improvement of the district in which one works		Possibility to actively participate in the improvement of the public spaces



EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PILOT PROJECT (1.5 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Students</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Objective 2:</b> REVERSIBILITY				Better quality of life	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Objective 4:</b> COOPERATION				Greater collaboration between students and the population.	Greater incentives for cultural growth	
<b>Objective 5:</b> INNOVATION				Investment in training for the use of the new platform		
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district		
<b>Objective 7:</b> SUSTAINABILITY	—	—	—	Better liveability of the district with a platform almost at 0 cost		
<b>MANUFACTURE AND PHYSICAL ELEMENTS</b>						
<b>OFFER OF THE SITE</b>						
<b>Soil</b>			Valorisation of the soil	Valorisation of the district and elimination of deterioration		Better control of the territory of the district
<b>Natural resources</b>			Valorisation of the soil	Improvement of the green areas		
<b>Cultural resources</b>				Greater maintenance of the cultural heritage		
<b>Services</b>				Increased efficiency and quality of the services		
<b>Infrastructure and transport networks</b>				Increased efficiency and quality of the services		
<b>Telecommunications</b>					Increase by the population of knowledge of technological support	
<b>Buildings and construction sites</b>				Limitation of inconveniences due to construction sites and the unauthorised private building on public soil		
<b>ACTIVITIES AND USES</b>						
<b>FUNCTIONS OF THE SITE</b>						
<b>Residential</b>				Improvement in the quality of life of the district		

**Table 4.1** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: classification of the ON-SITE, SHORT-MEDIUM TERM impacts and attribution of the impacts to the stakeholders and to the objectives *Source: processing of the Authors*

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PILOT PROJECT (1.5 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PUBLIC</b>						
<b>European Union</b>						
<b>Objective 9: DEMOCRATIC PARTICIPATION</b>	Provision of funds through competitions announcements					
<b>City of Turin</b>						
<b>Objective 3: PROCESSUALITY</b>			Improvement of the visibility and the liveability of a district		Greater interaction citizens - administration	
<b>Mirafiori Sud</b>						
<b>Objective 3: PROCESSUALITY</b>				Better and greater visibility of the public administration in the eyes of the citizens	Greater interaction citizens - administration	
<b>Objective 5: INNOVATION</b>				Investment in training for the use of the new platform		
<b>Objective 6: ATTRACTIVENESS</b>				Better visibility of the district from the outside		
<b>Objective 7: SUSTAINABILITY</b>	—	—	—	Better liveability of the district with a platform almost at 0 cost		
<b>Objective 9: DEMOCRATIC PARTICIPATION</b>				Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>PRIVATE</b>						
<b>Fondazione Mirafiori Sud</b>						
<b>Objective 2: REVERSIBILITY</b>	Support for the investments	—	—	—	—	—
<b>Objective 3: PROCESSUALITY</b>			Improvement of the visibility and the liveability of a district		Greater interaction citizens - administration	
<b>Objective 5: INNOVATION</b>	Provision of investments for technology training			New training opportunities	Increase of the cultural offer	

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PILOT PROJECT (1.5 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Students</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Objective 2:</b> REVERSIBILITY		—	—	Increase in the quality of life	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Objective 6:</b> ATTRACTIVENESS				Training for the use of the new platform		
<b>Objective 7:</b> SUSTAINABILITY		—	—	Better liveability of the district with a platform almost at 0 cost		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Diffusion of the crowdmapping method		
<b>LINKAGES</b>						
<b>LINKS TO THE CONTEXT</b>						
Transportation			Increased use of services through greater and more timely maintenance			
Administrative services				More and better dialogue with the Administration		
Circuits and networks	Winning project of SiforAGE			Increased efficiency and quality of the services		

**Table 4.2** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: classification of the OFF-SITE, SHORT- MEDIUM TERM impacts and attribution of the impacts to the stakeholders and to the objectives  
*Source: processing of the Authors*

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PUBLIC</b>						
<b>City of Turin</b>						
<b>Objective 1: CONTEXTUALISATION</b>	Funding for the increase of the platform	—	—	Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	
<b>Objective 5: INNOVATION</b>	Funding for the increase of the platform		Greater selection of supported projects (in terms of innovative enhancement)	Investment in training for the use of the new platform		
<b>Objective 6: ATTRACTIVENESS</b>				Better visibility of the district from the City		
<b>Objective 7: SUSTAINABILITY</b>	—	—	—	Better liveability of the district with a platform almost at 0 cost		
<b>Objective 8: INCLUSION</b>	Support and funding for network initiatives					
<b>Mirafiori sud</b>						
<b>Objective 1: CONTEXTUALISATION</b>	Funding for the increase of the platform	—	—	Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	
<b>Objective 2: REVERSIBILITY</b>	Support for the investments	—	—	—	—	—
<b>Objective 3: PROCESSUALITY</b>				Better and greater visibility of the public administration in the eyes of the citizens.	Greater interaction citizens - administration	
<b>Objective 4: COOPERATION</b>				Creation of new synergies with the population	Creating new synergies with other districts and cities	
<b>Objective 5: INNOVATION</b>				Investment in training for the use of the new platform		
<b>Objective 6: ATTRACTIVENESS</b>				Better visibility of the district from the outside		
<b>Objective 7: SUSTAINABILITY</b>	—	—	—	Better liveability of the district with a platform almost at 0 cost		
<b>Objective 8: INCLUSION</b>	Support and funding for network initiatives					
<b>Objective 9: DEMOCRATIC PARTICIPATION</b>				Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PRIVATE</b>						
<b>Builders</b>						
<b>Objective 1:</b> CONTEXTUALISATION	New projects (investments and financial returns)	—	Economic returns	Involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district from the City		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Craftsmen and retailers</b>						
<b>Objective 1:</b> CONTEXTUALISATION	New projects (investments and financial returns)	—	Economic returns	Involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	
<b>Objective 2:</b> REVERSIBILITY	New investments to improve the crafts-retail offer	—	Increase in costs and revenues associated with new investments	—	—	—
<b>Objective 6:</b> ATTRACTIVENESS			Introduction of new craft and commercial businesses	New and increased visibility of craftsmanship and products	New training opportunities	
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION	Support and funding for sustainable management		More opportunities for activities related to partnerships	Involvement of the entire population to make it an active protagonist of the project - raising the level of employment	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Tertiary sector</b>						
<b>Objective 1:</b> CONTEXTUALISATION	New projects (investments and financial returns)	—	Economic returns	Involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Environmental requalification
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 6:</b> ATTRACTIVENESS			Development of the local offer of services	Better visibility of the district from the City		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION			More opportunities for activities linked by partnerships	Involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PRIVATE</b>						
<b>Businesses</b>						
<b>Objective 1:</b> CONTEXTUALISATION	New projects (investments and financial returns)	—	Economic returns	Involvement of the entire population to make it an active protagonist of the project New employment opportunities	Improvement of the cultural offer	
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district from the City		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Private bodies</b>						
<b>Objective 1:</b> CONTEXTUALISATION	New projects (investments and financial returns)	—	Economic returns	Involvement of the entire population to make it active protagonist of the project improvement of the availability and liveability of the inhabited area	Improvement and increase of the conditions of the cultural heritage	Environmental requalification
<b>Objective 2:</b> REVERSIBILITY	New investment	—	—	Increase in costs and revenues associated with new investments	—	—
<b>Objective 4:</b> COOPERATION				Better quality of life	Improvement of the cultural offer	
<b>Objective 5:</b> INNOVATION	New investments in technology	—		New training opportunities		
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district from the City		
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Involvement of the entire population to make it an active protagonist of the project	Raising the level of employment	
<b>Associations</b>						
<b>Objective 1:</b> CONTEXTUALISATION	New projects (investments and financial returns)	—	Economic returns	Involvement of the entire population to make it an active protagonist of the project New employment opportunities	Improvement of the cultural offer	
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district from the City		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PRIVATE</b>						
<b>Fondazione Mirafiori Sud</b>						
<b>Objective 1:</b> CONTEXTUALISATION	New projects (investments and financial returns)	—	Opportunity to provide value added to goods	Possibility of securing new jobs	Opportunity to promote and improve the cultural environment	
<b>Objective 2:</b> REVERSIBILITY	New investments	—	—	Increase in costs and revenues associated with new investments	—	—
<b>Objective 3:</b> PROCESSUALITY				Better and greater visibility of the public administration in the eyes of the citizens	Greater interaction citizens - administration	
<b>Objective 4:</b> COOPERATION	Support for the investments			Creation of new synergies with the population	Improvement of the cultural offer	
<b>Objective 5:</b> INNOVATION	New investments in technology			New training opportunities		
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district from the City		
<b>Objective 7:</b> SUSTAINABILITY	—	—	—	Better liveability of the district with a platform almost at 0 cost		
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				More opportunities for activities linked by partnerships		
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Residents</b>						
<b>Objective 1:</b> CONTEXTUALISATION			Increased property values	Greater involvement of residents concerning problems, opportunities and positive realities of the district	Improvement and increase of the opportunities for cultural development	Greater perception of the environmental aspects of the district
<b>Objective 2:</b> REVERSIBILITY					Greater possibility by residents of contributing to an improvement of the cultural offer	Greater possibility by residents of contributing to the improvement of the public spaces
<b>Objective 4:</b> COOPERATION			Increased benefits	Greater collaboration between citizens. Creation of a tighter network increase of the services	Greater incentives for cultural growth	
<b>Objective 5:</b> INNOVATION				New training opportunities	Increase of the cultural offer	
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Possibility to actively participate in the improvement of one's own district	Possibility to actively participate in the improvement of the cultural offer	Possibility to actively participate in the improvement of the public spaces

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Workers</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	Greater involvement of employees about the problems, opportunities and positive realities of the district New possibilities with reduced commuting and emigration		Reduction of travel and pollution
<b>Objective 2:</b> REVERSIBILITY		—	—			Greater possibility by workers of contributing to requalification of the public spaces
<b>Objective 4:</b> COOPERATION			Increased benefits	Greater collaboration between citizens. Creation of a tighter network increase of the services	Greater incentives for cultural growth	
<b>Objective 5:</b> INNOVATION		—		New training opportunities	Increase of the cultural offer	
<b>Objective 6:</b> ATTRACTIVENESS				Better visibility of the district		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Possibility to actively participate in the improvement of the district in which one works		Possibility to actively participate in the improvement of the public spaces
<b>Tourists</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	Greater possibility of spending money in the district		New opportunities for recreation and cultural growth	Greater liveability of the public spaces
<b>Objective 2:</b> REVERSIBILITY				Improvement in the quality and availability of the district	New opportunities for recreation and cultural growth	Greater liveability of the public spaces
<b>Objective 8:</b> INCLUSION	Support and funding to commercial activities and tourism					



EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS		NON-MONETARY IMPACTS	
	F	Fis	E	S	C	Am
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Students</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	Investment in the involvement of the entire population to make it an active protagonist of the project	New opportunities for recreation and cultural growth	Greater liveability of the public spaces
<b>Objective 2:</b> REVERSIBILITY				Improvement in the quality and availability of the district	New opportunities for recreation and cultural growth	Greater liveability of the public spaces
<b>Objective 4:</b> COOPERATION				Greater collaboration between citizens. Creating a tighter network increase of the services	Greater incentives for cultural growth	
<b>Objective 5:</b> INNOVATION		—		Increased services	Improvement and increase of the opportunities for cultural development	
<b>Objective 6:</b> ATTRACTIVENESS				Greater availability of the district		
<b>Objective 7:</b> SUSTAINABILITY		—	—	Greater liveability in the district and more interactivity with it		
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Diffusion of the crowdmapping method		
<b>MANUFACTURE AND PHYSICAL ELEMENTS</b>						
<b>OFFER OF THE SITE</b>						
<b>Soil</b>			Valorisation of the soil	Valorisation of the district		Better control of the territory by the constituency
<b>Natural resources</b>			Valorisation of the soil	Improvement and greater availability of green areas		
<b>Cultural resources</b>					Greater maintenance and valorisation of the cultural heritage	
<b>Services</b>				Increase in the use of the services		
<b>Infrastructure and transport networks</b>				Increased efficiency and quality of the services		Increased tourist movement and less emigration-commuting
<b>Telecommunications</b>					Increase by the population of knowledge of technological support	
<b>Buildings and construction sites</b>				Limitation of inconveniences due to construction sites and the unauthorised private building on public soil		

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES ON-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>ACTIVITIES AND USES</b>						
<b>FUNCTIONS OF THE SITE</b>						
<b>Residential</b>				Improvement in the quality of life of the district		
<b>Productive</b>			Introduction of new business			
<b>Tertiary</b>			Development of the local offer of services			
<b>Commercial</b>			Introduction of new business			
<b>Cultural-scientific</b>					New opportunities for cultural growth	
<b>Recreation</b>					New opportunities for recreation and cultural growth	
<b>Consumption</b>			Increased offer			

**Table 4.3** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: classification of the ON-SITE, MEDIUM-LONG TERM impacts and attribution of the impacts to the stakeholders and to the objectives. *Source: processing of the Authors*

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES OFF-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PUBLIC</b>						
<b>European Union</b>						
<b>Objective 1: CONTEXTUALISATION</b>	Provision of funds through competition announcements	—	—			
<b>Objective 7: SUSTAINABILITY</b>	—	—	—	Possibility of extending a requalification project at low cost		
<b>Objective 8: INCLUSION</b>	Support and funding for network initiatives					
<b>Objective 9: DEMOCRATIC PARTICIPATION</b>	Provision of funds through competition announcements					
<b>State</b>						
<b>Objective 8: INCLUSION</b>	Support and funding for network initiatives					
<b>Piedmont Region</b>						
<b>Objective 7: SUSTAINABILITY</b>		—	—	Possibility of extending a requalification project at low cost		
<b>Objective 8: INCLUSION</b>	Support and funding for network initiatives					
<b>City of Turin</b>						
<b>Objective 1: CONTEXTUALISATION</b>	Provision of funds	—	—	Investment in the involvement of the entire population to make it an active protagonist of the project		
<b>Objective 2: REVERSIBILITY</b>	Support for the investments					
<b>Objective 3: PROCESSUALITY</b>				Better and greater visibility of the public administration in the eyes of the citizens	Greater interaction citizens - administration	
<b>Objective 4: COOPERATION</b>				Creation of new synergies with the population	Creation of new synergies	
<b>Objective 5: INNOVATION</b>				Improvement of methods of dialogue with the public administration		
<b>Objective 6: ATTRACTIVENESS</b>				Better visibility of the entire city	Increasing the cultural offer	Greater liveability of the public spaces
<b>Objective 7: SUSTAINABILITY</b>	—	—	—	Better liveability of the city with a platform almost at 0 cost		
<b>Objective 8: INCLUSION</b>	Support and funding for network initiatives					
<b>Objective 9: DEMOCRATIC PARTICIPATION</b>				Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES OFF-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON-MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PUBLIC</b>						
<b>Mirafiori Sud</b>						
<b>Objective 1:</b> CONTEXTUALISATION	Provision of funds	—	—	Investment in the involvement of the population to make it an active protagonist of the project		
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 3:</b> PROCESSUALITY				Better and greater visibility of the public administration in the eyes of the citizens	Greater interaction citizens - administration	
<b>Objective 4:</b> COOPERATION				Creation of new synergies with the population		
<b>Objective 5:</b> INNOVATION				Improvement of methods of dialogue with the public administration		
<b>Objective 6:</b> ATTRACTIVENESS				Improvement of the social environment	Improvement of the cultural environment	Improvement of environmental quality
<b>Objective 7:</b> SUSTAINABILITY	—	—	—	Better liveability of the district with a platform almost at 0 cost		
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Mirafiori Nord and Lingotto districts</b>						
<b>Objective 1:</b> CONTEXTUALISATION	Providing funds for expansion and dissemination of the platform	—	—	Investment in the involvement of the population to make it an active protagonist of the project		
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 5:</b> INNOVATION				Investment in training for the use of the new platform		
<b>Objective 6:</b> ATTRACTIVENESS				Improvement of the social environment	Improvement of the cultural environment	Improvement of environmental quality
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Investment in the involvement of the population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES OFF-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON- MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PUBLIC</b>						
<b>Municipalities of Moncalieri, Beinasco and Nichelino</b>						
<b>Objective 1:</b> CONTEXTUALISATION	Providing funds for expansion and dissemination of the platform	—	—	Investment in the involvement of the entire population to make it an active protagonist of the project		
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 5:</b> INNOVATION				Investment in training for the use of the new platform		
<b>Objective 6:</b> ATTRACTIVENESS				Improvement of the social environment	Improvement of the cultural environment	Improvement of environmental quality
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Investment in the involvement of the population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>PRIVATE</b>						
<b>Private bodies</b>						
<b>Objective 6:</b> ATTRACTIVENESS	Investments					
<b>Objective 7:</b> SUSTAINABILITY	—	—	New jobs	New possibilities for business and development		
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Involvement of the entire population to make it an active protagonist of the project	Raising of the level of employment	
<b>Associations</b>						
<b>Objective 6:</b> ATTRACTIVENESS	Investments					
<b>Objective 7:</b> SUSTAINABILITY	—	—	New jobs	New possibilities for business and development		
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Involvement of the entire population to make it an active protagonist of the project	Raising of the level of employment	

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES OFF-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>OWNERS-PRODUCERS-OPERATORS</b>						
<b>PRIVATE</b>						
<b>Fondazione Mirafiori Sud</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	New possibilities for business and development		
<b>Objective 2:</b> REVERSIBILITY	Support for the investments	—	—	—	—	—
<b>Objective 3:</b> PROCESSUALITY				Greater dialogue with the citizens	Opportunity of birth of new cultural activities	
<b>Objective 4:</b> COOPERATION				Creation of new synergies with the population		
<b>Objective 5:</b> INNOVATION				New possibilities for business and development		
<b>Objective 6:</b> ATTRACTIVENESS				Creation of new opportunities for social development	Creation of new opportunities for cultural development	
<b>Objective 7:</b> SUSTAINABILITY		—	—	Better liveability of the district with a platform almost at 0 cost		
<b>Objective 8:</b> INCLUSION	Support and funding for network initiatives					
<b>Objective 9:</b> DEMOCRATIC PARTICIPATION				Investment in the involvement of the entire population to make it an active protagonist of the project	Improvement of the cultural offer	Greater liveability of the public spaces
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Residents</b>						
<b>Objective 5:</b> INNOVATION		—		New training opportunities	Increase of the cultural offer	
<b>Objective 6:</b> ATTRACTIVENESS				New opportunities for social growth	Creation of new opportunities for cultural development	
<b>Workers</b>						
<b>Objective 5:</b> INNOVATION		—		New training opportunities		
<b>Objective 6:</b> ATTRACTIVENESS				Less commuting and emigration		

EVALUATION OF THE IMPACTS ON DIFFERENT STAKEHOLDERS AND ON THEIR SPECIFIC OBJECTIVES OFF-SITE IN REFERENCE TO THE PROJECT FULLY OPERATIVE (>2 YEARS)						
	MONETARY IMPACTS		MONETARY / NON - MONETARY IMPACTS	NON-MONETARY IMPACTS		
	F	Fis	E	S	C	Am
<b>CONSUMERS</b>						
<b>POPULATION</b>						
<b>Tourists</b>						
<b>Objective 2:</b> REVERSIBILITY				Improvement in the quality and availability of the district	New opportunities for recreation and cultural growth	Greater liveability of the public spaces
<b>Objective 6:</b> ATTRACTIVENESS				Improvement in the quality and availability of the district	New cultural opportunities	
<b>Objective 8:</b> INCLUSION	Support and funding to commercial activities and tourism					
<b>Students</b>						
<b>Objective 1:</b> CONTEXTUALISATION		—	—	New opportunities for recreation	New cultural opportunities	Greater liveability of the public spaces
<b>Objective 2:</b> REVERSIBILITY				Increase in the quality of life	Improvement of the cultural offer	Greater liveability of the public spaces
<b>Objective 5:</b> INNOVATION		—		Possibility to use and improve knowledge of new technologies	Increase of the cultural offer	
<b>Objective 6:</b> ATTRACTIVENESS				More offers and project opportunities		
<b>LINKAGES</b>						
<b>LINKS TO THE CONTEXT</b>						
<b>Transportation</b>			Increased use of services through greater and more timely maintenance	Greater mobility between the inside and the outside		
<b>Accessibility</b>				Greater accessibility		
<b>Administrative services</b>				More and better dialogue with the administration		
<b>Circuits and networks</b>	Possibility of access to invitations to tender			Increased efficiency and quality of the services		

**Table 4.4** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: classification of the OFF-SITE, MEDIUM-LONG TERM impacts and attribution of the impacts to the stakeholders and to the objectives *Source: processing of the Authors*

The step of evaluative summary was made in the final phase of analysis: the grid of the final evaluation *Final impact assessment* (see Table 5) shows the impact that the project will have on the territory and on all the stakeholders taken into consideration, weighing for value intervals the degree of achievement of the objectives in the expected scenarios for the collaborative platform. For the assessment of the impacts, a colour scale of qualitative assessment was chosen, divided into 5 degrees: from a negative impact (orange), to a very positive impact of the project (green).

Evaluation of the impacts in reference to the project at full performance from two years onwards																			
			IMPACTS ON THE SITE							IMPACTS OFF THE SITE							OVERALL IMPACTS		
			Monetary	Monetary	Mixed	Non-monetary	Non-monetary	Non-monetary	Partial	Monetary	Monetary	Mixed	Non-monetary	Non-monetary	Non-monetary	Partial			
ELEMENTS OF THE SYSTEM			F	Fis	E	S	C	Am		F	Fis	E	S	C	Am				
PRODUCERS - OPERATORS	Public	EU			-					++									
		Piedmont Region								+									
		City of Turin	++		-	++	+			++			++	+					
		District 10 - Mirafiori Sud	++		-	++	++	+		++			++	++	+				
		Mirafiori Nord and Lingotto								++									
		Fondazione di Comunità Mirafiori Sud onlus								++									
		Municipalities of Moncalieri, Beinasco e Nichelino								++									
	Private	Builders	++		+	++	++	+											
		Craftsmen and retailers	++		++	++	++	+											
		Tertiary sector	++		+	++	++	++											
		Businesses	++		+	++	++	+											
		Private bodies	++		+	++	++	+		+		+	+	+					
		Associations	++			++	++	+		+		+	+	+					
		Foundations	++		-	++	++			+			++	++	+				
CONSUMERS	Population	Residents			+	++	++	++		+			++	+					
		Workers			+	++	+	++											
		Tourists	+		+	+	+	+		+			+	+	+				
		Students				++	++	+					++	++	+				
MANUFACTURE AND PHYSICAL ELEMENTS	Offer of the site	Soil			+	+		+											
		Natural resources			+	+													
		Cultural heritage					+												
		Services				+													
		Infrastructure and transport networks				+		+											
		Telecommunications					+												
		Buildings and construction sites				+													
ACTIVITIES AND USES	Functions of the site	Residential				+													
		Productive			+														
		Tertiary			+														
		Commercial			+														
		Scientific and cultural					+												
		Recreation					+												
		Consumption			+														
LINKAGES	Links to the context	Transport										+	+						
		Accessibility											+						
		Administrative services											+						
		Circuits and Networks								+			+						

**Table 5** The CIA method for Crowdmapping Mirafiori Sud/MiraMap: the Final impact assessment  
 Source: processing of the Authors



The analysis conducted shows that the platform of Crowdmapping Mirafiori Sud/MiraMap and the connected strategies and actions have no negative physical territorial and social impact; the minus signs that were inserted concern monetary disbursements, economic investments that were used for technical support for the implementation of the project and they relate however to a financial investment that has repercussions in socio-economic terms on future developments and on the local territorial policies. As regards the size of the shared planning, the central role of the citizens emerges, while the ICT is perceived as a means and not as an end. No stakeholder is penalised by the use of the platform, aimed at supporting administrators in the government of the territory up to micro-projects for public spaces. As can be seen from the final right column on the impacts, the positive impact that the project would have, would be transversal on all subjects involved directly and indirectly.

## FINAL THOUGHTS AND FUTURE DEVELOPMENTS

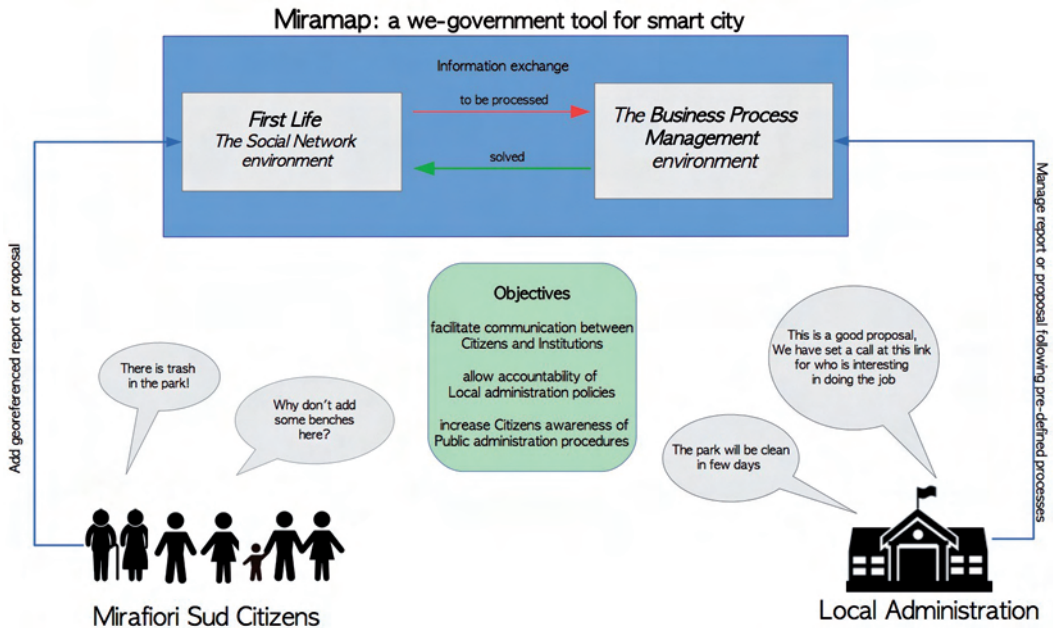
In the context of improving strategies, approaches and instruments to drive innovation in urban planning, management and governance at different scales and the generation of social impacts through the use of the ICT, the project is presented as a sphere in which to develop further insights starting from the results already achieved and just described.

In particular, certain fundamental issues should be addressed or consolidated in a perspective of implementation of the MiraMap project:

1. the integration of technology with the participatory process, to improve the strategies, the social impacts and to promote empowerment of the community;
2. the integration of the collaborative platform and its processes in the administrative process (workflow), promoting the transparency and accountability of local government;
3. a consolidation of the process of accompaniment and the construction of the map of competences, involving public employees, administrators and the community;
4. the development of a strategic plan and actions to support the replicability and scalability of the pilot project;
5. the redesign of a system of indicators for monitoring and performance that integrate the process of evaluation: a roadmap that constantly assesses the social impact and effectiveness of the process.

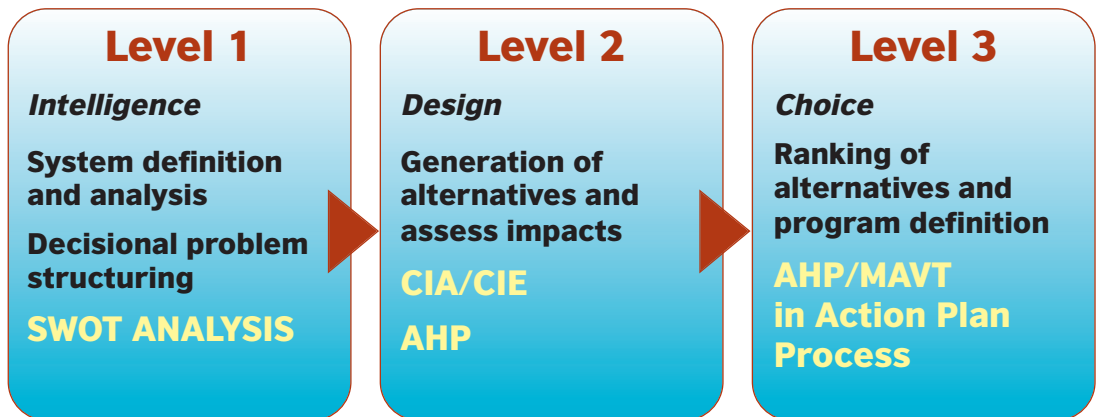
It is important to report the developments of analysis and research on two aspects in particular.

The first concerns the development of the process of monitoring and evaluation of MiraMap - currently underway - thanks to the integration of the technology in the administrative process: it has allowed to analyse quantitatively and qualitatively the cycle of signalling by the citizens even in light of the front end. This cycle enters in the workflow system already in use, becoming the occasion to verify, weigh and evaluate (also with indicators) some quality processes of the PA, as well as the effectiveness of the information and the degree of participation (Sangiorgi, 2008). Processing of both signalling of problems and proposals, entering in the process of SportelloPIU' of the District (and the quality of the data in the exchange of information), allows a connection with the administration of the city and a descriptive evaluation of the impacts of such actions. They are assumed from the political level, whose response becomes accessible to everyone and not only to those who have directly addressed the information desk. The digital innovation can therefore be addressed and "weighed" both from the side of the interaction with the administration, and from the side of the citizen by means of the map (Figure 5).



**Figure 5** Conceptual map of the MiraMap Project  
 Source: re-processing of the Authors from: De Filippi et al., 2016

The second theme can raise suggestions for structuring a new methodological approach at three levels, as schematically shown in Figure 6 (Simon, 1960, RuoRoch Molina Cansino et al., 2012, Coscia et al., 2015, Coscia and De Filippi, 2016): level 1. *Intelligence* that provides an evaluation of the decision-making process using the SWOT Analysis; level 2. *Design*, where the contribution of the evaluation is manifested in the detection of the decision-making preferences of the stakeholders (CIA); level 3. *Choice*, to define the hierarchy of the objectives and priorities from the point of view of the institutional decision-makers (Multicriteria, AHP).



**Figure 6** Future developments: a methodological proposal  
 Source: re-processing of the Authors from: RuoRoch Molina Cansino et al. 2012, Coscia et al. 2015

Currently, the research group is thinking about the third level, in particular as regards the identification and development of a series of multi-scale indicators to evaluate performance (degree of achievement of the objectives) of the collaborative platform that is complementary to the outcomes of the CIA. In general, the third methodological level (Choice) defines a dynamic system of institutional evaluation, articulated through the Multiple Attribute Value Theory (MAVT) and the Analytic Hierarchy Process (AHP), capable of integrating the technical evaluations with specific functional and institutional feedback, weighed by the stakeholders, to define the value of the actions of the intervention. This system allows the mapping of the possible institutional conflicts within the MiraMap process and evaluation by the government of mechanisms to define the choices, the responsibilities and the potentiality and for active citizenship. These weights will be established through technical indicators to achieve the desirable scenario (inclusive, sustainable, flexible, etc.).

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