TeMA

Journal of
Land Use, Mobility and Environment

This special issue collects a selection of peer-review papers presented at the 8th International Conference INPUT 2014 titled "Smart City: planning for energy, transportation and sustainability of urban systems", held on 4-6 June in Naples, Italy. The issue includes recent developments on the theme of relationship between innovation and city management and planning.

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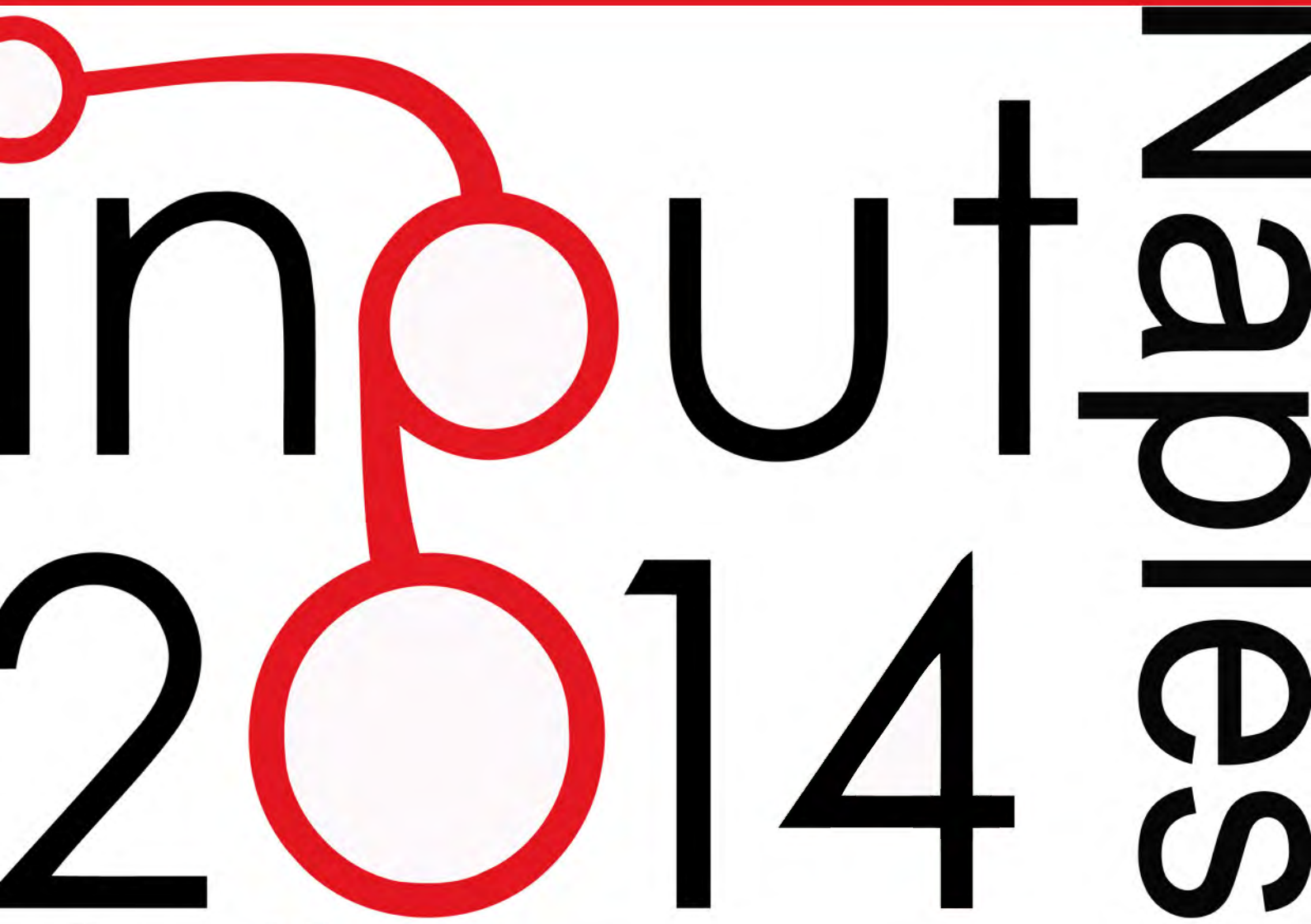

Smart City

planning for energy, transportation and sustainability of the urban system

Special issue, June 2014

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TeMA Journal of Land Use, Mobility and Environment

SMART CITY

PLANNING FOR ENERGY, TRANSPORTATION AND SUSTAINABILITY OF THE URBAN SYSTEM

Special Issue, June 2014

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TeMA Journal of Land Use, Mobility and Environment

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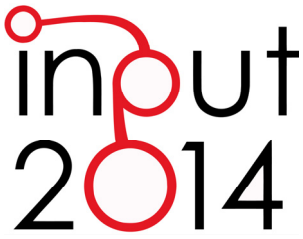
TeMA Journal of Land Use, Mobility and Environment

This special issue of TeMA collects the papers presented at the 8th International Conference INPUT 2014 which will take place in Naples from 4th to 6th June. The Conference focuses on one of the central topics within the urban studies debate and combines, in a new perspective, researches concerning the relationship between innovation and management of city changing.



TeMA Journal of Land Use, Mobility and Environment

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EIGHTH INTERNATIONAL CONFERENCE INPUT 2014

SMART CITY. PLANNING FOR ENERGY, TRANSPORTATION AND SUSTAINABILITY OF THE URBAN SYSTEM

This special issue of TeMA collects the papers presented at the Eighth International Conference INPUT, 2014, titled "Smart City. Planning for energy, transportation and sustainability of the urban system" that takes place in Naples from 4 to 6 of June 2014.

INPUT (Innovation in Urban Planning and Territorial) consists of an informal group/network of academic researchers Italians and foreigners working in several areas related to urban and territorial planning. Starting from the first conference, held in Venice in 1999, INPUT has represented an opportunity to reflect on the use of Information and Communication Technologies (ICTs) as key planning support tools. The theme of the eighth conference focuses on one of the most topical debate of urban studies that combines , in a new perspective, researches concerning the relationship between innovation (technological, methodological, of process etc..) and the management of the changes of the city. The Smart City is also currently the most investigated subject by TeMA that with this number is intended to provide a broad overview of the research activities currently in place in Italy and a number of European countries. Naples, with its tradition of studies in this particular research field, represents the best place to review progress on what is being done and try to identify some structural elements of a planning approach.

Furthermore the conference has represented the ideal space of mind comparison and ideas exchanging about a number of topics like: planning support systems, models to geo-design, qualitative cognitive models and formal ontologies, smart mobility and urban transport, Visualization and spatial perception in urban planning innovative processes for urban regeneration, smart city and smart citizen, the Smart Energy Master project, urban entropy and evaluation in urban planning, etc..

The conference INPUT Naples 2014 were sent 84 papers, through a computerized procedure using the website www.input2014.it . The papers were subjected to a series of monitoring and control operations. The first fundamental phase saw the submission of the papers to reviewers. To enable a blind procedure the papers have been checked in advance, in order to eliminate any reference to the authors. The review was carried out on a form set up by the local scientific committee. The review forms received were sent to the authors who have adapted the papers, in a more or less extensive way, on the base of the received comments. At this point (third stage), the new version of the paper was subjected to control for to standardize the content to the layout required for the publication within TeMA. In parallel, the Local Scientific Committee, along with the Editorial Board of the magazine, has provided to the technical operation on the site TeMA (insertion of data for the indexing and insertion of pdf version of the papers). In the light of the time's shortness and of the high number of contributions the Local Scientific Committee decided to publish the papers by applying some simplifies compared with the normal procedures used by TeMA. Specifically:

- Each paper was equipped with cover, TeMA Editorial Advisory Board, INPUT Scientific Committee, introductory page of INPUT 2014 and summary;
- Summary and sorting of the papers are in alphabetical order, based on the surname of the first author;
- Each paper is indexed with own DOI codex which can be found in the electronic version on TeMA website (www.tema.unina.it). The codex is not present on the pdf version of the papers.

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Eighth International Conference INPUT
Smart City - Planning for Energy, Transportation and Sustainability of the Urban System

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SMART COMMUNITIES

SOCIAL INNOVATION AT THE SERVICE OF THE SMART CITIES

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ABSTRACT

Making Cities Smarter is the challenge of the new millennium, even in a context of profound structural crisis like the present one. In fact, there is an urgent need to rethink the models of socio-economic development to make them more consistent with the new social needs, in particular related to the territorial liveability and social inclusion. In the literature produced in recent years and that has stimulated reflections, ideas, research and projects for a smart urban development, a "smart city" is generally meant as a city capable of joining "competitiveness" and "sustainability", by integrating different dimensions of development (economic, mobility, environment, people, living and governance*).* However, the actions have been largely focused on ICTs and their impacts on urban development.This contribution starts from a reflection, already begun by the authors, on the theme of "Smart City" as "Senseable city", which means that we need to focus the discussion no more on "how cities can be smarter" but on "how intelligent technologies can lead us to rethink the patterns of urban development by making them fair and inclusive, as well as efficient and sustainable". In this paper, the attention is focused on another aspect that in recent years is becoming increasingly important in terms of the development of smart cities, that is the *social innovation*, understood as innovative practice with the aim of creating a positive impact for society that is as wide as possible. The direct and indirect impact that the creation of social innovation can exercise in terms of urban development will lead us to talk about different models of Smart Cities as "Social Cities". Finally, investigating the Italian experience, the article shows how, despite the efforts, the current approaches to the problem are still very far from considering a Smart City as a local system focused on innovation, a system in which the application of new technologies is not random but responds to a strategic project that starts from the bottom, from the real needs of the citizen.

KEYWORDS

Smart city, Social innovation, Social City and Urban development

1 THE PARADIGM OF SMART CITIES/SMART COMMUNITIES: A CRITICAL READING

For some years first in the world and then in Europe, the researchers have been beginning to analyze the modern city through the paradigm of the *smart city*. The main feature of the smart city seemed to be on the role of ICT infrastructure, although much research has also been carried out on the role of human capital, the social and relational capital and the environmental quality as important drivers of urban growth.

Also various institutions and organizations have long devoted constant efforts to devising a strategy for achieving urban growth in a "smart" sense for its metropolitan areas. So, we can find in the Oslo Manual (2005), developed jointly by Eurostat and the OECD, the importance of role of innovation in ICT sectors but we also can detect that a method is provided to identify various consistent indicators, that form a sound framework of analysis on urban innovation. In particular, we observe renewed attention for the role of "soft infrastructure" (governance, innovation forums and network and community organizations) in determining economic performance.

As well as Caraglio and Del Bo (2009) have written, the availability and quality of the ICT infrastructure is not the only definition of a smart or intelligent city. Other definitions stress the role of human capital and education in urban development. Berry and Glaeser (2005) and Glaeser and Berry (2006) show, for example, that the most rapid urban growth rates have been achieved in cities where a high share of educated labour force is available. In particular Berry and Glaeser (2005) model the relation between human capital and urban development by assuming that innovation is driven by entrepreneurs who innovate in industries and products which require an increasingly more skilled labour force.

At the same time, we must remember what was pointed out by Hollands (2008). He affirms that this terminological vagueness could not be just a problem of defining a uniform framework for benchmarking but, behind a deliberate choice and an artificial generality, all the contradictions that characterize the new urban forms may be hidden.

However, without going into details of the various attempts to arrive at an univocal definition of a smart city, we can summarize the different ways in which it has been interpreted the concept of smart city into three types of approaches: (1) a techno-centered approach characterized by a strong emphasis on "hardware", new technologies and infrastructure that ITC would be the key to the smart city, (2) a human-centered approach where there is a large weight of social and human capital in defining the smart city; (3) an integrated approach that defines a smart city from the possession of both the foregoing qualities, because the intelligent city has to ensure integration between technology and human and social capital to create the suitable condition for a continuous and ongoing process of growth and innovation.

But even this interpretation seems still limited. In fact, if a smart city is a city that knows how to exploit their human capital so that there is a creative and qualified context for economic development, other factors that are not exclusively linked to economic growth seem very important.

In this regard, Hollands shows clearly that, today, there are no studies that correlate the smart city projects with the most critical aspects of the city and its transformations, as instead it had been when the entrepreneurial city was born (Harvey 1989), or when the dominance of the activities and neo-liberal spaces was increasing (Peck and Tickell 2002), and he emphasizes the risk that the smart city can be only a high-tech variation of the entrepreneurial city.

In fact, the growing assertion of the concept of territorial competitiveness that has had great influence on the way of understanding cities and development (through industrial clusters in Porter 2000, the innovative milieux in Scott 2000, and Nevarez 2003, or creative cities in Landry 2000, and Florida 2002), generating a process of enterprising of urban policies, was supported in the time by the guiding principle of sustainable development at the urban scale (Gibbs 2002; Gibbs and Krueger 2007). This has led to the development of other paradigmatic interpretations

such as: the "ecological city" (Platt 2004), the "compact city" (Breheny 1995), the "green urbanism" (Beatley 2000), up to the measurement of the "ecological footprint" (Wackernagel and Rees 1996).

Therefore, it is necessary to identify the criteria that make development aspects comparable to sustainability issues as well as issues of social justice in an urban scale. In fact, in the new "smart urbanization", processes of inclusion and exclusion can be born, that are worth to be observed and analyzed in a more consistent way.

As it is known, a first attempt to contemplate all these aspects in the definition of the smartness has been made by the Vienna University of Technology , in collaboration with the University of Ljubljana and the Delft University of Technology. They have produced a research on European medium-sized cities (with population less than 500,000 inhabitants). Later, this research became the ranking instrument of approximately 1600 city of EU27, plus Iceland, Liechtenstein, Norway and Switzerland.

This project, called "European smart cities", was born as part of a wider project ESPON 2013 (ESPON Project 1.1.1) and showed not only a final ranking of 70 cities, but it has remained a reference model to identify factors that make cities "smart". In this context, smart cities can be identified and ranked along six main axes or dimensions, that are: *a smart economy; smart mobility; a smart environment; smart people; smart living; and, finally, smart governance.* These six axes connect the traditional theories of urban growth and development, with the modern aspect of sustainable development of a city. Then, a middle city can be defined as "smart" when investments in human and social capital and traditional (transport) and modern (ICT) communication infrastructure fuel sustainable economic development and a high quality of life, with a wise management of natural resources, through participatory governance.

Starting from these dimensions of analysis, several other studies have been done (Boyd Cohen, City Protocol, Smart City in Europe, MIT Senseable City Lab, The European House - Ambrosetti , iCity Lab PA Forum, etc.).

Despite this, the whole design of smart cities, in terms of policies, plans and actions, was mainly oriented to engineering and selective interventions in comparison with the urban areas and portions of the population affected by them. The implemented measures concerned essentially the "high impact" sector (as the energy, the transport of goods, the mobility, the waste management, etc.), based mainly on high-tech solutions. Although sustainability has also been seen so far strictly in energy and environment key, through choices and technologies that save energy, or from a functional point of view, through integration of e-participation techniques such as online consultation and deliberation over proposed service changes to support the participation of users as citizens in the democratisation of decisions taken about future levels of provision.

Also at the European level, an attention toward the concept of smartness is confirmed. But there, the smartness is mainly read in the environmental and energy key. In fact, in the Strategic Plan for the Energy Technologies of 2007 (European Commission, 2007), and in the resulting Technology Roadmap (European Commission 2009), there is precise and explicit reference to the smart city and a specific budget dedicated to this axis.

Moreover, in 2012, the European Commission launched a specific initiative for the development of smart cities of the Old Continent: "Smart Cities and Communities European Innovation Partnership". This program has provided € 365 million for innovative ideas and demonstration projects within the energy, transport and ICT in urban areas. These policy (initiatives) are then witness to a European commitment to the sustainability of our cities, especially viewed in terms of technological innovation, in order to reduce the load of greenhouse gases and to improve the quality of the life of the citizens.

Therefore, a collection of "smart people" and "smart governance" appears necessary. Where, smart people refers to citizens aware of the importance of participation in public life, capable of peaceful coexistence, responsible for their choices in life. But a smart city is also a city that considers the population one of its most important resources for the future and who knows how to direct the development policies of the questions of the community in its various phases (for example services for the elderly or for children). While,

smart governance means an administration with a strategic vision of sustainable development, investing in communications and technologies for environmental sustainability and that is able to promote awareness-raising around the common good. A smart city must be a city that can support the establishment of public-private partnerships, able to involve citizens in decision-making in public policy, focusing more and more on participatory processes, such as online consultations and deliberations, as well as through the activation of participated creativity workshops. In this regard, it is interesting to take the warning issued by the sociologist and economist Sassen (2011), who believes that the new challenge is the attempt to "urbanize the technologies", that make them actually useful to new urban needs.

We need to think that a smart city is not a project but the beginning of an overall process of sensing and actuating for the transformation of the city, where there are particular needs of citizens, active and passive actors in the process. And, in the smart city, the dimension of equity must be held in due consideration. In particular, as described in the report "State Of The World's Cities 2012/2013, prosperity of Cities", the equity must take account of the distribution and redistribution of the benefits of prosperity of a city, in order to obtain a reduction of poverty, a supply of adequate housing, a protection of the rights of minorities and vulnerable groups, a gender equality and a public participation of citizen in political and cultural life.

So, the equity is the new dimension that completes the process of smartness ensuring the development of a city in terms of *SENSEable City*: a city should be not only smart, but its smartness must cover all the inhabitants.

If the "Smart City" is a city where the investments in human and social capital, in the participation processes and in the technology infrastructure, are directed to sustainable and competitive economic development, "the SENSEable city" is the one that encourages dialogue between the different actors of the urban reality, and that promotes more informed decisions for the development of the city in all its parts and components, with a new participatory approach to urban development and with a more efficient and equitable use of resources and networks (Greco and Bencardino 2014).

2 SMART CITIES AND SOCIAL INNOVATION

The rapid spread of the concept of "smart city" - think more and more like the "city of tomorrow" - has led to the growth of a strong debate about innovation, not only the technological one, but *social and open innovation* and on how to involve community in the processes of innovation as a key element of urban regeneration of urban areas.

A theme, that of social innovation, that opens to a new dimension to the definition of intelligence of a city, where its technological facilities, networks and all intangible infrastructure, cloud computing and electronics are to be understood only as instruments whose value is in the finalization towards objectives of smart growth, sustainable and inclusive of cities.

Assuming this perspective, the concept of smart city is inextricably linked to that of social innovation. In this vision, the Smart cities are cities that create the conditions of governance, infrastructural and technological to produce social innovation, able to solve social problems related to growth, inclusion and quality of life, through listening and the involvement of various local actors: citizens, businesses and associations.

There are many definitions in the literature of "social innovation" that demonstrate the complexity of establishing analytical boundaries of a phenomenon whose essential characteristics are manifested in practice.

Some of the earliest references to social innovation dating back to the 1960s, when the term is used to refer to experimental research within the social sciences and humanities. Since then, the term has gone on to be used in reference to different areas: by the processes of social change and the transformation of society as a whole (Porter, Kramer, 2011), to an aspect of the business strategy and organizational (management of non-profit), to social enterprise and social entrepreneurship (Hoogendoorn *et al.* 2010), to the practical development and

implementation of new products, services and programs which meet social needs (Murray *et al.* 2010), and finally, as a "process" of governance, empowerment and the development of social capital in the implementation of specific programs and strategies for an inclusive city (Gerometta *et al.* 2005)[1].

In this paper, refers to this latter viewpoint, according to which is social innovation that innovation that provides new answers to old and new social problems. It is, therefore, an innovation that emerges, on the one hand, as a response to a growing dissatisfaction with the technological emphasis in economic innovation literature and innovation policy (Moulaert *et al.* 2005), on the other hand, as a response to the growing social, environmental and demographic challenges, expression of the "failure" of the modern Welfare State, of conventional market capitalism, of mass urbanization, of globalization and its negative impacts and so on (Nicholls and Murdock 2012).

One of the definition of social innovation more open and complete at the same time is contained in the "Open book on social innovation", written by Murray, Caulier-Grice and Mulgan (2011), which define social innovations as new ideas (products, services and models) that simultaneously meet social needs in a more effective of the alternatives exist and create new social relationships or collaborations. The authors describe the Social Innovation as a phenomenon that starts from the bottom, impetuous and spontaneous that does not require abstract solutions, but new and concrete actions that depart from the modern society under the influence of disruptive new generation, made of stubborn young and enthusiastic, ready to get in the game.

Phillis, Deiglmeiere and Miller, in their article for the "Stanford Social Innovation Review", define social innovation as a new solution to a social problem that is more effective, efficient and sustainable, or just than existing solutions and for which the value created accrues primarily to society as a whole rather than private individuals. Other authors as Everett M Rogers (1995) and Gillwald write on this aspect, emphasizing that an innovation to be such need not be new, but rather, new to the territory, sector or field of action of the innovation itself, a "social achievement" that provides the best solutions.

Manzini, an expert in sustainable design, defines "social innovation" the way in which individuals and communities act to solve a problem and generate new opportunities. In this sense, innovation is a catalyst for social change, a collaborative process through which citizens can be directly involved in defining the ways in which a project, a program or service is designed and then implemented.

Other authors consider innovation essentially as "product", defining social innovation as the realization of an idea that leads to specific outcomes, such as improving the quality of life or social inclusion. Still others, such as Eduardo Pol and Simon Ville (2008), define social innovation in terms of "impact": the innovation is a social innovation if the new idea has the potential to improve both the quality and quantity of life (better education, better environmental quality, better life expectancy and so on).

Other definitions focus, instead, on motivation: Harris and Albury (2009), for example, define social the innovation that is explicitly inspired by and directed to the social and public good.

In the European vision, the innovations are social whether the objectives and the means used to achieve them are social (European Commission 2013) [2].

Beyond the definitions and visions, whether they intend to social innovation as a novelty, a process, a product, an impact, a motivation or as a combination of these, it is clear that social innovation is another to innovation tout court that arises from market competition and the search for a higher profit. At the origin of these innovation processes are social pressures exerted by the existence of unsatisfied needs (e.g. health services of proximity), of wasted resources (e.g. land use), environmental emergencies (e.g., air quality) or social (e.g. growing areas of hardship, poverty and marginalization).

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1 For a review of the literature see: Tepsie FP7 Project, "Defining Social innovation" – Part 1. May 2012.

2 European Commission, DG Regional and Urban Policy, "Guide to Social Innovation", February 2013, http://ec.europa.eu/regional_policy/information/brochures/index_en.cfm#1.

In the definition and development of smart cities, the social innovation, therefore, is not only a more or less radical idea, but an innovative practice that aims to create a positive impact for society that is as wide as possible. It is to be understood as the capacity, the ability, the strength of a society to understand, analyze and solve its social and environmental problems and takes the form of ideas, actions, strategies, processes and projects whose impact is to the benefit of the community and not individual promoters. The practices of social innovation, in fact, not only respond in an innovative way to some needs, but also offer new ways of decision and action, through the creation of networks and using forms of coordination and cooperation rather than vertical forms of control.

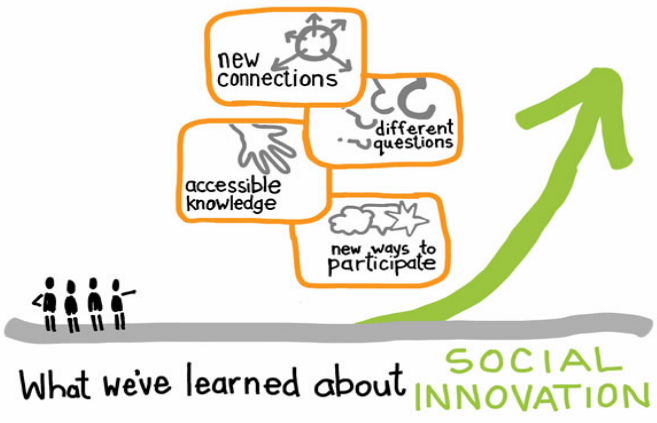

Fig. 1 About a focus on social innovation

Another key aspect that ties the theme of social innovation to that of smart cities, is the field of action of social innovator. According to Mean and Tims, the Report's authors "People Make Places: Growing the Public Life of Cities", public spaces function as self-managed public services because they create "a shared resource space in which the experiences and values are created in ways that are not possible simple in our private lives". This means that the public space is interpreted as an experience created by the interaction between people, rather than as a predetermined physical place. This interaction contributes in turn to create a sense of community that is a crucial element in the process by which citizens relate to their surroundings and participate in the creation of models of socio-economic development more consistent with the changing needs and new social needs, in particular, related to the livability of the area and social inclusion.

The potential impact of an innovative practice on the social context is much higher as inclusive as is the process of community involvement, an involvement not passive, but projected to action: the community does not participate only at the phase of experimentation and testing of application solutions proposed, but answers to the problems of their living places by developing specific projects (Harris and Albury 2009).

Another of the most important and controversial aspect of social innovation concerns the measurement of the impact that it can exercise in social terms. The strong focus on the evaluation of this impact has resulted in the development of metrics and tools for the quantitative measurement of the social value created.

The impact of innovation is, in reality to evaluate both in the direct creation of social value generated by the results of a social nature closely related to the action/innovation, both in the indirect creation of social value generated from results implied in the process, in the new relations, in the new governance structure, in the social capital activated. The indirect creation of social value consists, in fact, in increasing capacity for action of society (*empowerment*), thanks to a process of collective learning (Gerometta *et al.* 2005). From here, also, the usefulness of networking of individuals that make social innovation and their practices for defining and shares development projects for smart cities. The two value dimensions help to determine the *outcome of innovation*, or what is defined social improvement.

One last aspect to be discussed is that of governance: the social innovation is embedded in the social system of the communities in which they practice, in the qualitative value of these relationships, in the complexity of spontaneous models of governance. There are no, in fact, actors and sectors more suitable than others in developing practices of social innovation. Indeed, the most interesting experiences and radicals are the result of collaboration between different actors belonging to different worlds.
The one that emerges is a new community, where the local dimension is integrated with the global within the city and where the resources and the know-how of the people are valued because they are considered important tools for the solution of problems related to urban and cultural sustainability. Here the innovation becomes an a catalyst for social change, a collaborative process through which citizens participate actively in the development and implementation of projects, programs and services aimed at them. The passage from the vision of the control to that of enabling transforms the city into hub for empowering communities: holistic and living spaces in which people make heard their voices and, starting from their daily experiences, driving change.

3 SOCIAL CITIES: MODELS OF "SMART CITIES" BASED ON SOCIAL INNOVATION

In the model purely "smart" the technologies on the one hand transforming the city into a system of services and infrastructure characterized by extremely efficient management processes, on the other hand offer versions "personalized" of the urban ecosystem through pervasive devices to search and reporting (Hollands 2008). Examples of actual "smart cities" include towns built from scratch like New Songdo in South Korea and Masdar in the United Arab Emirates, but more often existing cities that are made "smarter", like the Amsterdam Smart City project in the Netherlands. The policies stop to this model of smart city consider innovation in its purely technological and economic dimension and the citizens as end-users, according to that which can be identified as the urban logic of 3C (consumer, control, capsulerization).
In reality, as technology is only one aspect in the analysis of possible scenarios of urban development that arise from the widespread diffusion of so-called "intelligent technologies" which, although focused on efficiency and comfort, will inevitably have an impact on patterns of typical urban life and social challenges (Crang and Graham 2007). Focusing on how intelligent technologies can create social innovation, from an interpretation "technocratic" of smart city will change to a "social": according to this view, the city becomes "Social City" when the question that drives the analysis and field trials is "whether and how digital technologies can make possible the action of citizens on collectively questions perceived as important and urgent".
The Social City explores how digital media technologies can enable people to act as co–creators of livable and lively cities, what is called "civic empowerment".
According to this approach, the urban technologies engage and empower people to become active in shaping their urban environment, to forge relationships with their city and other people, and to collaboratively address shared urban issues (Paulos *et al.* 2008; Foth *et al.* 2011; De Lange and De Waal 2012).
The home page of the Social Cities of Tomorrow website - International conference & workshop in Amsterdam, the Netherlands (14-17 February 2012) - opens with the following statement: "*Our everyday lives are increasingly shaped by digital media technologies, from smart cards and intelligent GPS systems to social media and smartphones. How can we use digital media technologies to make our cities more social, rather than just more hi-tech*?
Much has been said and written about changing spatial patterns and social behaviors in the "smart city" as "media city"; yet, less attention has been paid to the question how urban new media shape the built form (De Lange and De Waal 2013). Systematizing approaches and experiences emerging in European cities, but

especially in North America, De Lange and De Wall argue that there are three areas of the most promising developments,

in which urban technologies can be used to create "smart cities" based on social innovation, through the active involvement of citizens: i) data-commons; 2) sense of place and sense of belonging (ownership); 3) DYS (Do It Your Self) Urban Design and Networked Publics.

In relation to these three areas, we try to delineate several models of "smart cities" based on social innovation[3]:

- *"Open City*: is the city that gives priority to the transparency of its work. The communication of its activities is not mediated but is directed by the online publication of all acts, live broadcast streaming of council meetings, access to documents, and so on. Is with the adoption of open data model that this approach has found its maximum expression in many American and European countries and, more recently, also in Italy with the experiences of Udine, Turin, Florence. The San Francisco's Open Data Platforms, for example, are the most interesting in the world. San Francisco is not (only) the city of The Open Data, but the one that has "institutionalized" social innovation, creating an ad hoc municipal office and a team of eight young experts to transform the city into more accountable, accessible and responsive to America.
- *"Owned City o Wiki City"*: the communication is intended to encourage the involvement of citizens in the management of public affairs. From the first experiments of e-democracy to the recent experiences of public contexts and wiki-government, citizens are called to become an active part in decisions that affect the city. Concrete examples of this approach are the experiences of Bologna and Cagliari.
- *The "City as a platform" or "Cloud city"*: the urban space with its streets, squares, parks has always been a precondition for social interaction. In the city as a platform, the technology becomes a facilitator of interaction, software of connection between ideas, initiatives, skills and different experiences or, as says Cerveny, (Founder and Director of VURB an European framework for policy and design research concerning urban computational systems) the operating system of civil society able to "combine the reach of the cloud with the power of the crowd". There are those who denote this feature as MAAS, Municipality as a Service taking as a model the approach pursued by the city of New York that one of the first cities in the world has made explicit its model of digital development through a development plan, the Road Map for Digital City, aimed at "create an ecosystem that enables both transparency and also economic growth" (Rachel Sterne Interview, April 28, 2011).
- *"Neo-bohemian" City or "Creative City":* is the city that gives space to the communication that comes from the bottom in the form of artistic production, creating the conditions for the regeneration of urban areas. The neo-bohemian neighborhoods are laboratories for research and development for the production of the economy of entertainment, of media, of advertising, of work related to aesthetics.
- *"Resilient City":* the synchronic processes of assimilation and adaptation to which, by their nature, shape, structure and functions, the urban systems (urban centers such as the suburbs) are continually exposed, as well as the deep crisis that has affected the contemporary city is no longer seen as places of production but only of consumption, has led recently to the declination of the concept of ecosystem resilient linked to that of smart city. It is associated with a particular idea of intelligence that can reshape to the complexity of the events that are deconstructing the city. At this same idea, several authors have reconnected other paradigms such as urban regeneration, that proposes in place of the

[3] For a review of international and italian case studies see: Camporeschi C. (2010), Enabling City: Place-Based Creative-Problem Solving and the Power of the Everyday, The Enabling City, available on www.enablingcity.com; Murray et al. (2011), "The Open Book of Social Innovation", The Young Foundation, available on www. http://youngfoundation.org.

now ineffective sustainable development, and of connective intelligence Network and System (Davoudi 2012). The ability of a society to create a constant flow of social innovations is an important contribution to its social and ecological resilience (Westley 2008).

4 A LOOK AT THE ITALIAN PROGRAMMING FOR THE FUTURE

"Social innovation" and "smart city" are two concepts that have been supported by the Italian Ministry for Education, University and Research (MIUR) through the action lines defined in two public calls, that had the same denomination "Smart Cities and Communities and Social Innovation": a first, funded under the PON for Research and Competitiveness (DD no. 84/Ric. of March 2, 2012) dedicated to the Convergence Regions and a second (DD no. 391/Ric of 5 July 2012), in which the Ministry of Education had allocated 665.5 million euro (of which 170 Meuro as a contribution in spending and 485.5 Meuro for subsidized credit) for the presentation of Project Ideas by companies, research centers and consortium companies, located throughout the national territory[4].

Through these public calls, the MIUR was aimed to identify measures and collect ideas to solve problems at the urban and metropolitan scale in sixteen specific areas (*Territorial protection, Ageing Society, Welfare Technologies and Inclusion, Home Automation, Justice, Education, Waste Management, Technologies of the Sea, Health, Transportation and Mobility, Last-Mile Logistics, Smart Grids, Sustainable Architecture and Materials, Cultural Heritage, Water Resources Management, Cloud Computing Technologies for Smart Government*).

For both public calls a share of the budget - amounting to 40 Meuro for the first call and 25 Meuro for the second one - was aimed at young people, aged up to 30, who wish to submit projects for *Social Innovation*. These selections shows the importance that the MIUR reserves to the theme of smart communities and social issues. So, these initiatives has been well received by a community of young innovators who have submitted projects often very complex and articulated, despite the economic resources for the Social Innovation were much more limited than the Project Ideas financed with the same public calls. This is an absolutely bottom-up process, which starts from instances of local communities, but needs stimulation, support and coordination from the top to be able to maximize the benefits that these planned actions can produce.

For Social Innovation, many of these under-30 have proposed concrete solutions to solve the problems of the urban contexts in which they live and work. Considering only the four Convergence regions, we can mention more than 60 funded projects and, above all, more than 200 "social innovators" engaged in the development of proposals approved in the first call. Moreover, many funded projects have aroused the interest of local administrations, that have effectively included these in its initiatives directed to objectives of "smart city". In addition, we note that some of these appear very complex and ambitious[5].

Looking only to the city of Naples, an interesting example is the project named OR.CH.E.S.T.R.A. (Organization of Cultural Heritage for Smart Tourism and Real Time Accessibility). In this case, the initiative has not only brought huge resources, but also has stimulated the interest of the insiders. This initiative provides for the enhancement of the city's cultural heritage through the development of a platform that will allow the search of multimedia data collections and the creation of personalized tourist routes[6].

Many other projects for the city of Naples have the goal of creating a smart city through social innovation: the project "A.ppI.L. Health", the project of public wi-fi network "Naples Free Cloud City", the "Aquasystem" project aimed at improving efficiency of the management of environmental resources, and, finally, the

[4] http://www.ponrec.it/programma/interventi/smartcities.
[5] http://www.ponrec.it/notizie/2012/maggio/smart-cities-and-communities-approvazione-delle-idee-progettuali.
[6] http://www.ponrec.it/media/140152/presentazione_miur_orchestra.pdf.

projects "Naples Bike Sharing" and "CI.RO. - City Roaming", aimed at the development of sustainable mobility, respectively for the cycling network and the urban mobility.

All of these projects mentioned seem to be well integrated within a complex initiative and focused more on areas of intervention. In particular, this last one is a very complex project in terms of management and implementation. It provides a network of actors called upon to support the group of young innovators: the Municipality of Naples, the company Napolipark Srl (to which the Administration has entrusted the management of the services stop, the mobility and the video surveillance) and three leading ICT companies (ABB, Renault and Vodafone). The presence and support obtained from these last three actors testifies to the great effort and commitment of the proponents in the definition of a group of solid work, and with high skill in integrating new technological equipment in the city (http://www.cityroaming.org).

In summary, we can count as many as 32 Executive Projects, which are combined with 48 Projects of Social Innovation, for a total of 399 participants coming mostly from private enterprise sector but also from that of research and institutions. Some of the projects co-financed by the PON for Research and Competitiveness in the South were presented in Naples March 27, 2014 at the "Smart City med".

As all the social innovation projects funded with the public calls "Smart cities and communities and social innovation", the work began recently and, therefore, the results are not yet fully evaluated, but the expectations are really high. Similarly there is a high confidence in this new approach to innovation. In fact, many Italian cities have decided to open new calls to retrieve ideas and proposals from the local community, with particular reference to the involvement of young talent present in it, more and more possible protagonists of the transition of our urban areas towards a new model of the city.

But the MIUR calls have also reserved some surprises and mishaps. First of all, we must denounce the temporal slowness with which they were conducted selections and subsequently signed the decree of final approval of the 80 winners. The decree of approval of the lists was signed October 31, 2013, after more than a year since the publication of the second call of July 5, 2012. Then, we also report a reduction of about 50% of the amount initially allocated. In fact, after the decree of approval, the MIUR as made technical visits and scientific verification on site to approve the costs of individual projects and the result was a restatement of these project costs. Finally, total costs were admitted for less than € 350 million, which amount to less than half of the financial resources made available by the initial announcement, which were 655.5 million euro. And also, a little more than € 305 million of this € 350 million will be financed partly in the form of a contribution to the expense (non-repayable) and partly in the form of subsidized credit; the rest will be covered by private co-financing.

In conclusion, although it is too soon to express a full review, some observations can already be made. At first, we can say that the verifications in the final approval appear more than justified, because of the abuses that have been made in the past of the public money and the failure of the non-repayable grant. Therefore, although the delays and reductions in the budget may appear to be a malfunction in the selection process of Project Ideas, we think they are useful for a correct direction of the resources. Secondly, we must point out that reserve a significant portion of the design for smart cities to social innovation is a nullifying point for understanding that a smart city is a city that starts from its citizens. Finally, it seems important to emphasize that the choice of bottom-up selection is certainly a successful choice because it starts a series of youthful energies otherwise unused. Then, we hope that this mode of bottom-up selection could represent a model for the future organization of the smart city.

NOTES

Although the paper grounds on a common research work, the abstract e the paragraphs 1 and 4 have been written by M. Bencardino; the paragraphs 2 and 3 by I. Greco.

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IMAGES SOURCES

Fig. 1: From the website "Common Knowledge", http://ckgroup.org/ essential- strategies/ overview/ social-innovation/.

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