# TeMA

### Journal of Land Use, Mobility and Environment

There are a number of different future-city visions being developed around the world at the moment: one of them is Smart Cities: ICT and big data availability may contribute to better understand and plan the city, improving efficiency, equity and quality of life. But these visions of utopia need an urgent reality check: this is one of the future challenges that Smart Cities have to face. Tema is the Journal of Land use, Mobility and Environment and offers papers with a unified approach to planning and mobility. TeMA Journal has also received the Sparc Europe Seal of Open Access Journals released by Scholarly Publishing and Academic Resources Coalition (SPARC Europe) and the Directory of Open Access Journals (DOAJ).



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# TEMA Journal of Land Use, Mobility and Environment

# SMART COMMUNITIES

## **BETWEEN E-GOVERNANCE AND SOCIAL PARTICIPATION**

2 (2014)

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# TeMA Journal of Land Use,

Journal of Land Use, Mobility and Environment

TeMA. Journal of Land Use, Mobility and Environment offers researches, applications and contributions with a unified approach to planning and mobility and publishes original inter-disciplinary papers on the interaction of transport, land use and environment. Domains include: engineering, planning, modeling, behavior, economics, geography, regional science, sociology, architecture and design, network science and complex systems.

The Italian National Agency for the Evaluation of Universities and Research Institutes (ANVUR) classified TeMA as scientific journal in the Area 08. TeMA has also received the Sparc Europe Seal for Open Access Journals released by Scholarly Publishing and Academic Resources Coalition (SPARC Europe) and the Directory of Open Access Journals (DOAJ). TeMA is published under a Creative Commons Attribution 3.0 License and is blind peer reviewed at least by two referees selected among high-profile scientists. TeMA has been published since 2007 and is indexed in the main bibliographical databases and it is present in the catalogues of hundreds of academic and research libraries worldwide.

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### REVIEWS PAGES SMART COMMUNITIES BETWEEN GOVERNANCE AND SOCIAL PARTICIPATION

Starting from the relationship between urban planning and mobility management, TeMA has gradually expanded the view of the covered topics, always remaining in the groove of rigorous scientific in-depth analysis. During the last two years a particular attention has been paid on the Smart Cities theme and on the different meanings that come with it. The last section of the journal is formed by the Review Pages. They have different aims: to inform on the problems, trends and evolutionary processes; to investigate on the paths by highlighting the advanced relationships among apparently distant disciplinary fields; to explore the interaction's areas, experiences and potential applications; to underline interactions, disciplinary developments but also, if present, defeats and setbacks.

Inside the journal the Review Pages have the task of stimulating as much as possible the circulation of ideas and the discovery of new points of view. For this reason the section is founded on a series of basic's references, required for the identification of new and more advanced interactions. These references are the research, the planning acts, the actions and the applications, analysed and investigated both for their ability to give a systematic response to questions concerning the urban and territorial planning, and for their attention to aspects such as the environmental sustainability and the innovation in the practices. For this purpose the Review Pages are formed by five sections (Web Resources; Books; Laws; Urban Practices; News and Events), each of which examines a specific aspect of the broader information storage of interest for TeMA.

### 01\_WEB RESOURCES

The web report offers the readers web pages which are directly connected with the issue theme.

author: Laura Russo Tema Lab - Università degli Studi di Napoli Federico II, Italy e-mail: laurarusso88@hotmail.it

### 02\_BOOKS

The books review suggests brand new publications related with the theme of the journal number.

author: Floriana Zucaro Tema Lab -Università degli Studi di Napoli Federico II, Italy e-mail: floriana.zucaro@unina.it

### 03\_LAWS

The law section proposes a critical synthesis of the normative aspect of the issue theme.

author: Valentina Pinto Tema Lab -Università degli Studi di Napoli Federico II, Italy e-mail: valentina\_pinto@hotmail.it

### 04\_URBAN PRACTICES

Urban practices describes the most innovative application in practice of the journal theme.

author: Gennaro Angiello Tema Lab - Università degli Studi di Napoli Federico II, Italy e-mail: gennaroangiello@yahoo.it

### 05\_NEWS AND EVENTS

News and events section keeps the readers up-to-date on congresses, events and exhibition related to the journal theme.

author: Gerardo Carpentieri Tema Lab- Università degli Studi di Napoli Federico II, Italy e-mail: ger.carpentieri@gmail.com

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### **评论页面:** 介于治理与社会参与之间的智能社区

TeMA 从城市规划和流动性管理之间的关系入手,将涉及的论题逐步展开, 并始终保持科学严谨的态度进行深入分析。在过去两年中,智能城市( Smart Cities)课题和随之而来的不同含义一直受到特别关注。 学报的最后部分是评述页(Review Pages)。这些评述页具有不同的目的 :表明问题、趋势和演进过程;通过突出貌似不相关的学科领域之间的深 度关系对途径进行调查;探索交互作用的领域、经验和潜在应用;强调交 互作用、学科发展、同时还包括失败和挫折(如果存在的话)。 评述页在学报中的任务是,尽可能地促进观点的不断传播并激发新视角。 因此,该部分主要是一些基本参考文献,这些是鉴别新的和更加深入的交 互作用所必需的。这些参考文献包括研究、规划法规、行动和应用,它们 均已经过分析和探讨,能够对与城市和国土规划有关的问题作出有系统的 响应,同时还对诸如环境可持续性和在实践中创新等方面有所注重。因此 ,评述页由五个部分组成(网络资源、书籍、法律、城市实务、新闻和事 件),每个部分负责核查 TeMA 所关心的海量信息存储的一个具体方面。

## 01\_WEB RESOURCES 网站报告为读者提供与主题直接相关的网页。

### author: Laura Russo

那不勒斯菲里德里克第二大学民用建筑与环境工程系 TeMA 实验室 e-mail: laurarusso88@hotmail.it

### 02\_BOOKS 书评推荐与期刊该期主题相关的最新出版著作。

author: Floriana Zucaro

那不勒斯菲里德里克第二大学民用建筑与环境工程系 TeMA 实验室 e-mail: floriana.zucaro@unina.it

### 03\_LAWS

法律部分提供主题相关标准方面的大量综述。

author: Valentina Pinto

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### 04\_URBAN PRACTICES

城市的实践描述了期刊主题在实践中最具创新 性的应用。

author: Gennaro Angiello

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### 05\_NEWS AND EVENTS

新闻与活动部分让读者了解与期刊主题相关的 会议、活动及展览。

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# 01

### SMART COMMUNITIES BETWEEN GOVERNANCE AND SOCIAL PARTICIPATION

## **REVIEW PAGES: WEB RESOURCES**

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# In this number SOCIAL PARTICIPATION FOR THE SMART CITY

Engaging citizens in the management of urban space has recently become one of the main strategies for creating a smart city and promoting social equity, because cities can no longer be considered as mere container for human actions, places of consumption or just spaces to be exploited.

Active citizenship concerns the involvement of people to enable knowledge and innovation generation processes, allowing the creation of new knowledge and making citizens more aware of the city they live in.

Today, the participation of urban communities is favored by new technologies, which allow different ways of interaction within the urban context making communication and spread of information easier and immediate. In this issue of TeMA, the three websites proposed below – kickstarter.com, smartcitizen.me, campusbubble.com – relate with the broad theme of social participation, each of them from a different perspective.

Kickstarter is the most famous crowdfunding platform that thanks to a widespread private monetary action funds creative projects; crowdfunding can be considered one of the most innovative way of promoting social engagement because it makes creators and bakers feel like they are part of a larger global community built around an idea, a project.

Smart Citizen is a platform that uses geo-referenced data provided by citizen to map cities and create new knowledge. This project, born in Spain and worldwide supported, is based on the idea that social participation can make the difference for building a better city: open source platforms allow people to get involved and informed about the management of cities and also help decision makers to define more targeted and reliable actions.

Campus Bubble is a private social network for educational institutions that provides a cross-platform to make the exchange of information between university groups easier, so to increase collaboration and student engagement. In this case the issue of social participation is approached at a smaller scale: the campus can be considered a minor part of the city and the academic community is nothing more than a community of citizens; from this perspective, Campus Bubble aims to involve people in the organization of campus life.



KICKSTARTER http://www.kickstarter.com

Crowdfunding can be defined as the practice of collecting many small amounts of money from backers over the internet to finance a project and/or idea; maybe not surprisingly, it has exploded in the US in 2009, at the beginning of the financial crisis.

Its "mission is to help bring creative projects to life", as stated by Kickstarter, the gorilla among crowdfunding platforms, in line with Obama's recommendation "to be makers of things, not just consumers of things".

Since its first launched five years ago, Kickstarter's funders have pledged over 1 billion dollars, successfully financing over sixty-four thousand creative projects, coming from all seven continents.

One basic rule makes the funding platform work: "every project creator sets their project's funding goal and deadline. If the project succeeds in reaching its funding goal, all backers' credit cards are charged when time expires. If the project falls short, no one is charged". Projects cannot last longer than sixty days.

People pledging money can "choose from a variety of unique rewards offered by the project creator. Rewards vary from project to project, but often include a copy of what is being produced (CD, DVD, book, etc.) or an experience unique to the project".

Kickstarter applies a 5% fee to the money raised by each funded project and creators retain 100% ownership of their idea. The website is the only interface of Kickstarter company, which involves 81 people based in Brooklyn. All projects – funded, not funded, in progress – can be explored in the *Discover* page of the platform, divided into fifteen categories, from art and crafts to music and technology. Projects can also be sorted by popularity, launch/end date or just by "magic", choosing a location that can be the entire earth, or your city. Each project has its own page where creators share with backers as more information about their project as possible: although videos are not mandatory, Kickstarter team recommend project creators to include one, because "projects with a video succeed at a much higher rate (50% vs. 30%), and they also raise more money". Furthermore, in the project page there are information about the number of supporters that have already funded, the amount of money collected, the project deadline, and the list of rewards for the backer community, together with a detailed description of what the creator is trying to do and why.

The more the project page is clear and inspiring, the more potential supporters will appreciate it.

The section *Creator Handbook* on Kickstarter's website provides creators instructions for getting started with shaping their projects; the guide aims at helping creators to build their project page, choose the most appropriate rewards, set the funding goal and the project deadline, plan the best strategy to promote the project and find support, update backers on their progress and finally achieve the fulfillment getting their rewards to supporters and communicate with them.

Kickstarter is one of the earlier platforms for crowdfunding and one of the most successful, but it is not the only; in fact, depending on your crowdfunding goals and needs, there are several crowdfunding sites that have different models and focuses.

If in 2012 the overall crowdfunding industry has raised \$2.7 billion (Crowdfunding Industry Report) and in 2013 the industry return was projected to grow to \$5.1 billion, we expect that the phenomenon will continue to increase in importance in the next years.



SMART CITIZEN https://www.smartcitizen.me

"Smart Citizen is a platform to generate participatory processes of the people in the cities. Connecting data, people and knowledge, the objective of the platform is to serve as a node for building productive open indicators and distributed tools, and thereafter the collective construction of the city for its own inhabitants." These words open the *Homepage* of smartcitizen.me, the website dedicated to the project born within Fab Lab Barcelona and the Institute for Advanced Architecture of Catalonia with the goal of mapping cities using data from their citizens.

In a time of global economic instability, the Smart Citizen system connects people, knowledge and data trying to jump start economy from the bottom, engaging citizens in the management of the city the live in. Many different types of environmental information are provided on the platform, such as levels of air pollution, humidity, temperature and noise.

The project got founded thanks to two crowdfunding platforms – kickstarter and goteo – where backers donated over eighty thousand dollars. At now, the community of citizens participating in the project counts more than 340 people and 283 sensors distributed worldwide; each citizen as a personal panel on the website that includes information about geolocation, last update and data sensors.

In the *News* section of the website visitors keep updated on the new citizens joining the network and on the new sensors added.

Furthermore, on the platform it is also possible to pre-order the Smart Citizen Kit (SCK), designed by E. Perotti and M. Kukucka and called *The Ambient Board*, which "carries sensors that measure air composition (CO and NO2), temperature, light intensity, sound levels, and humidity" and "is able to stream data measured by the sensors over Wi-Fi". European potential buyers can choose between three different models, with a minimum price of 99  $\in$  up to 244  $\in$  for the complete kit, while not-Europeans can just order one model for 175 \$.



Additional information on how to use the SCK is included in the Docs section,

where several tutorials help new users to getting starter with the kit; moreover, a community forum is available for all different types of questions and doubts.

The project is very recent and after the big crowdfunding success it seems to continue attracting the interest of people looking for a better city; most probably, we will hear more about it in the future.

Review Pages – Smart Cities between governance and social participation TeMA Journal of Land Use Mobility and Environment 2 (2014)



CAMPUS BUBBLE www.campusbubble.com

Campus Bubble (CB) is a private social network that connects academic communities within universities, from students to faculty members and administrative staff.

In order to overcome a common problem for academies respect the way they share information, often fragmentized and hardly accessible, Campus Bubble provides a cross-platform to "centralize and simplify" the exchange of information between university groups so to promote collaboration and student participation.

The idea of Campus Bubble was born at Emory University, in Atlanta, where a small group of friends – coming from six different countries and with different backgrounds – share a common objective: "impact student engagement and retention"; today, three years after the founding of CB, this team of eleven people is supported by the work of "the ambassadors", which help to spread the network to other universities, and of the "trusted advisors", i.e. leading personalities in the education and business sectors that contribute to build the long-term strategy of the company.

The initiative is becoming more and more popular and not just in the U.S., where it has been founded, but also worldwide.

Campus Bubble is already active at Emory University, its incubator, but other educational institutions are now approaching the new private social network and among these there are also elementary, middle and high schools, where young students and their parents will benefit from the safety and ease of communication in a private environment.

A meticulous description of CB and its functionalities can be found on campusbubble.com, where it is also possible to sign for "getting Bubble for your campus" or just scheduling a demo. Bubble is available on the web, as well as a mobile app, and it allows students to easily access the system just using their school credentials.

Once an educational facility chooses to adopt CB, the implementation process starts, including marketing events for promoting Bubble among students, product demonstrations for every level of the administration and also a 24/7 support.

Campus Bubble provides an alternative, private and reliable, to Facebook; let's hope it has the same success.

#### **IMAGE SOURCES**

The images are from:

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# 02

### SMART COMMUNITIES BETWEEN GOVERNANCE AND SOCIAL PARTICIPATION

## **REVIEW PAGES: BOOKS**

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### In this number OPEN GOVERNMENT DATA AND SMART COMMUNITIES INITIATIVES

Within the wide debate about smart cities the issue of social participation and innovation has been spreading quickly. As the Italian Digital Agenda states, without the participation of citizens smart city cannot exist, according to the fact that the urban smartness needs a social capital who knows how to operate, in order to prevent that a lack of expertise by users in the field of ICT could be an obstacle to the development of its economic and competitive potential (Gargiulo, Pinto, Zucaro 2013). Beyond the several definitions and outlooks provided by scientific research (Phills et al. 2008; Hoogendoorn et al. 2010; Murray, Caulier-Grice, Mulgan 2011), social innovation should be intended as a collaborative process in which communities are directly involved so as both to solve a problem and generate new opportunities. In this perspective, the active involvement of citizens led to a high and positive impact for society estimable in terms of social and economic capital, as well as governance. Nevertheless social innovation requires infrastructure and education and with regards to the first one we should not only think about the hardware part, but also about the software that, in a broader view, means applications, services and data. According to IBM, about 2.5 quintillion bytes of data are created every day (enough to fill about 57.5 billion 32 GB iPads daily) and this huge increase in the amount of data, combined with openness and technologies, has dramatically changed the nature of data from a closed proprietary resource to a common shared resource. A large number of governments have started to make their data available on the web through Open Government Data (OGD) portals that provide statistics, reports and geo spatial information. The OGD refer to government data, defined as "data and information produced or commissioned by government or government controlled entities" (OKF, 2012), that are opened up for use and re-use by public and private agents alike. Different challenges related to policy, technology, financing, organisation, culture, and legal frameworks may be associated with the implementation of OGD initiatives which, if not properly tackled, might obstruct or restrict the capture of benefits of national efforts aimed at spurring OGD.

According to these brief considerations, this section proposes three documents related to how technology can strengthen good government (for instance by enabling greater transparency of government actions through open data) and how participation processes can improve the quality of everyday life.

ISBN code: n.d.



### Title: Open Government Data: Towards Empirical Analysis of Open Government Data Initiatives Author/ editor: Ubaldi B. Publisher: OECD Publishing Download: http://www.oecd-ilibrary.org Publication year: 2013

The OECD Open Government Data (OGD) project is oriented to evaluate the international efforts made until now to challenge their implementation. Indeed OECD aims at setting up a knowledge framework of OGD policies, strategies and initiatives in order to develop a methodology to assess the impact of OGD on the improvement of government performance. For this purpose the first step is represented by this report which collects the main principles, concepts and criteria of OGD initiatives around the world and the related chances that can be given to policy makers.

Even though the OGD is still a term used as an umbrella for a lot of concepts, the author of this report explains the difference among the Public Sector Information, which is related to "information disseminated, or funded by or for a government or public institution", the Big Data that are a "collection of datasets so large and complex that it is difficult to use on-hand database management tools, or traditional data processing applications" and the OGD that are characterised by two main elements: they are elaborated or accredited by public bodies and open data are can be freely used and distributed by anyone, on condition that users attribute the data and that they share their work.

Thanks to these characteristics, the potential benefits of their use are not only considered in monetary and economic terms, but also from social and good governance perspectives. In addition to the income that can be generated by commercialising government data, OGD initiatives allow also to people both to make decisions that can enhance the quality of their lives and to increase participation in public affairs. Nevertheless the achievement of all these advantages depends on overcoming the challenges related to policy, technology, financing, organisation, culture, and legal aspects.

Data accessibility and sharing between public authorities and the users requires a consistent legal framework to ensure transparency and controlling information. For instance, the Open Data White paper published in the UK (2012), aims at explaining how the Government intends to put data and transparency at the heart of government and public services. In order to facilitate and coordinate the work of public agencies in the transition towards OGD provision, it should be defined when and which kind of data can be published in readable formats and how to deal with approved publishing formats. To this aim guidelines, handbooks and benchmarking activities represent useful measures a government may chose; European countries as Norway, Spain and France have already published them.

In addition to all these key issues that are worth being debated and addressed by governments, the last section of the report focuses on the methodological framework for evaluating OGD initiatives with the purpose of "developing a common set of metrics to consistently assess impact and value creation within and across countries". The author suggests a methodology to perform empirical analysis of OGD initiatives, to be applied both to ex post and ex ante analysis, based on questionnaires and interviews.

This framework represents just a first step towards a quantitative assessment of OGD quality, in order to start defining the necessary phases to design and implement OGD initiatives, and it does not provide a set of well-defined indicators.



Title: Future of Government – Smart Toolbox Author/ editor: AA VV Publisher: World Economic Forum Download: http://www.weforum.org Publication year: 2014 ISBN code: n.d.

The World Economic Forum's Council on the Future of Government, in cooperation with the United Arab Emirates (UAE) Government, developed this report in order to analyse how technology has impacted governments and their work. The UAE has been in the forefront of technological innovation to improve government services, and it has been ranked second in the Government Usage of ICT index, within the Global Information Technology Report (2014) by the World Economic Forum.

The starting point is that technology can help government re-build trust through several channels, such as eparticipation, or social media, and allows to create a synergistic relationship between leaders and followers. Nevertheless technology on its own is not enough to build smart governments; according to the report, trust and leadership have to characterise the input variables for a good government, whose performance can be enhanced by the mix of soft and hard power elements used in a smart way. Hence the title of the report. Measuring trust can help government to benchmark progress, identify gaps and learn from best practices across the world. Building leadership in the technological era will occur through information technology, big data, and disruptive and exponential technologies ("governments as well as the world's top enterprises will need to employ exponential technologies and innovation to dramatically accelerate their objectives"). The question the authors attempt to answer is how technology can help governments get better at dealing with eight key government priorities: anti-corruption, political representation, delivery of services, trust, leadership, security and innovation. In each one of the eight chapters that describe the main elements, the potential application of ICT and the examples of good government in the eight core areas, the authors highlight that governments need to review the plans and strategies to reach to the citizen expectations, especially with the current massive technical developments. Pointing out that governments have the largest base of customers in the world, offering their services to seven billion people, technology can strengthen good government such as by enabling greater transparency of government actions through open data, or empowering citizens to have faster and more accurate access to online services. The Chinese government, in the Eastern area of the country, launched some open and e-commerce platforms providing data and one-stop access to public services to help businesses in the region better compete in the global market. In Norway, one of the world's leaders in public sector innovation, a centralized platform that allows its users to search and request documents at all levels of government and service (taxation, prescription medication, pension and so on). As part of the toolbox, the last chapter describes three scenarios on how the world of governance could evolve by 2050, on the basis of interviews Council Members, to understand their perceptions of the main forces of change that will impact the role and forms of governments in the future. Indeed the aim is twofold: making this smart toolbox as forward-looking as possible and facilitating the dialogue on the options we have now to shape desired governance systems of the future. City State refers to a world where authority is decentralized to the city level; e1984 is characterised by the spread of Big Data is realized; Gated Community where all these services are entirely managed by private companies.



Title: Smart communities: how citizens and local leaders can use strategic thinking to build a brighter future Author/editor: Morse W. S. Publisher: Jossey-Bass Download: n.d. Publication year: 2014 ISBN code: 978-1-118-42700-2

Susanne Morse, the author of this book, is the president of the Pew Partnership for Civic Change, a civic research organization providing consulting to governments and foundations to identify and implement solutions to make communities stronger. Thanks to the results of more than a decade of research by this organization, this book describes the key strategies used by thousands of leaders that have been able to create successful communities, giving to leaders from both the public and private sectors the tools they need to create a better future for the community's citizens.

The author stresses the complexity and connections of community problems, referring always to the two main themes that are at the basis of the book: the awareness and the need to act with a bottom-up approach, because, as the author states, "to be citizens who feel connected to our communities, and thereby creating better lives for ourselves and for our neighbors, we must be aware of the critical issues in our communities". Morse's research led to the identification of seven high leverage points that are all necessary to manage changes in the communities and to build successful ones:

- investing right the first time: identifying the main elements that allow to obtain the greatest return, by using the "triple bottom line" concept that means budgeting, investing and decision making;
- working together: developing the vehicles that communities can use to organize themselves for more collaborative approaches (for instance partnerships necessary to create new opportunities for success) and overcome the barriers that prevent them;
- building on community strengths: focusing on what is right, by experimenting new ways of thinking to lead to better results;
- practicing democracy: developing ways for citizens to actually decide the future, rather than always just reacting to it;
- preserving the past: using history, buildings and culture to inform and catalyze the future, in order to create different scenarios that contribute to the economic and quality of life indices;
- growing leaders: getting citizens prepared, activated and encouraged to get involved, to develop their capacities and3 to take action together;
- investing in a brighter future: encouraging risk-taking and entrepreneurship in dealing with community issues.

Each one of these seven key issues is described in a different chapter that follow a general pattern of identifying the issue, discussing it, reporting several case studies, briefly described, and framing the lessons learned.

Summarising, this book, as the author states in the title, is aimed at citizens and local leaders who are committed to their community and it differs from the other community-building books in different aspects: it describes both practices and results related to smaller cities and rural areas and highlights that in the next future successful communities will have adapted to change, reinvented their economy and redefined themselves through public processes. The question is not what they will be like, but who will they be?

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# 03

### SMART COMMUNITIES BETWEEN GOVERNANCE AND SOCIAL PARTICIPATION

### **REVIEW PAGES: LAWS**

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### In this issue THE EU E-GOVERNMENT ACTION PLAN 2011 – 2015

In recent years, the European Union has started a process of radical reforms that call for a revolution in the structure and in the functioning of Public Administration. These changes concern in particular the process of computerization of the public administration, renamed "eGovernment" (from Electronic Government), which should allow to manage the documentation and administrative procedures with digital systems, and could provide a wide variety of benefits including more efficiency and savings for governments and businesses, increased transparency, and greater participation of citizens in political life.

E-government is defined as «the employment of the Internet and the world-wide-web for delivering government information and services to the citizens» (UNDESA 2012); so, it implies the use of the Information and Communication Technology (ICTs) in order to improve and streamline operations and services offered by the Public Administration, aimed at:

- improving operational efficiency within each Administration;
- computerizing the delivery of services to citizens and businesses that often involve integration between the services of different administrations;
- allowing an on line access to the government services and information.

In this context, the new information technologies play a crucial role as they represent the operational tool to improve delivery of digital services both for citizens and businesses, in a number of domains such as in procurement, justice, health, environment, mobility and social security, and respond to an innovation request more and more widespread and demanding. Thanks to ICTs, citizens can benefit from the services provided by the public sector in an innovative, efficient and economical way.

ICTs are already widely used by government bodies, as it happens in enterprises, but eGovernment involves much more than just the tools. It also involves rethinking organisations and processes, and changing behaviour so that public services are delivered more efficiently to people (ec.europe.eu). As a matter of fact, to get to be "smart", a city not only has to face a technological challenge but has to make organizational changes at administration level, ensuring the involvement of all stakeholders.



### CONTENTS, PRIORITIES AND ACTIONS OF THE PLAN

Formerly, it was the Malmo Ministerial Declaration in 2009 that defined the priorities for all European public administrations over the next 5 years, setting out that by 2015 European public administrations should be «recognised for being open, flexible and collaborative in their relations with citizens and businesses. They use e-Government to increase their efficiency and effectiveness and to constantly improve public services in a way that caters for user's different needs and maximises public value, thus supporting the transition of Europe to a leading knowledge-based economy» (EC 2009).

With the European e-Government Action Plan 2011-2015, European Commission is committed «to developing and promoting more useful and better ways, relying on ICT solutions, for businesses and citizens to participate in public policy consultations, debates and policy-making processes» (EU 2010).

On this basis relies the European e-Government Action Plan 2011-2015 "Harnessing ICT to promote smart, sustainable and innovative Government", aimed at increasing the capacity of citizens, businesses and other organisations to be pro-active in society through the use of new technological tools.

Published in December 2010, it forms an integral part of the 2020 Digital Agenda of which contributes towards fulfilling two key objectives:

- by 2015, a number of key cross-border services will be available on line enabling entrepreneurs to set up and run a business anywhere in Europe independently of their original location, and allowing citizens to study, work, reside and retire anywhere in the European Union;
- by 2015, 50% of EU citizens will have used e-Government services.

Since e-Government services are also of great importance for businesses, this Action Plan also aims that by 2015, 80% of enterprises will have used e-Government.

The European Commission's main responsibility is to improve the conditions for development of cross-border eGovernment services provided to citizens and businesses regardless of their country of origin; while each Member State should set their own targets and show how to achieve these targets by means of measures such as adopting legal instruments, setting standards, etc..

Through the implementation of this Plan, then, the European Union is trying to move towards a more open model of design, production and delivery of innovative online services able to allow the European governments to provide better public services with fewer resources.

In order to achieve this aim, the Commission sets out 4 political priorities for all European public administrations that fits with the priorities defined in the Malmö Declaration:

### Priority 1: User empowerment

User empowerment aims at «increasing the capacity of citizens, businesses and other organisations to be proactive in society through the use of new technological tools.[...]. Empowerment also means that governments should provide easy access to public information, improve transparency and allow effective involvement of citizens and businesses in the policy-making process» (EU 2010)

In order to empower users, the Commission will support Member States to:

- develop services designed around users' needs, and inclusive services: this involves, for example, to track
  allocation of allowances or benefits, enroll in schools or universities, request and receive online civil
  certificates, submit online tax declarations.
- introduce collaborative production of services: in order to enable users to play an active role in the design and production of public services; to do so the Commission will assess how to involve users actively in design and production of eGovernment services and further elaborate recommendations/guidelines with and for the Member States;
- re-use public sector information (PSI): this action is linked to the re-use of data (such as geographical, demographic, statistical, environmental data etc...) gathered by public authorities and in many cases not used anymore. The release of this kind of public data probably will allow citizens and businesses to find new ways to use it and to create new innovative products and services.
- improve transparency: the action aims at allowing users to trace their personal data stored by public administrations, enabling users to check who accessed their administrative files and giving users insight in the process of decision making;
- foster the involvement of citizens and businesses in policy-making processes: Member States are committed to developing and promoting more useful and better ways for businesses and citizens to participate in public policy consultations, debates and policy-making processes.

### Priority 2: Strengthening the internal market

In order to strengthen the internal market so to apply for services from one country when in another EU country, the Commission proposes various initiatives to develop:

- seamless business services: through these action, the Commission intends to put in place a cross-border infrastructure which will enable businesses to sell and provide services and products all across the EU, through easy electronic public procurement;
- personal mobility: the Commission will provide cross-border and interoperable eDelivery services for citizens, e.g. so that they can study, work, reside, receive health care and retire anywhere in the European Union;
- implementation of cross-border services at EU level: the Commission will support and coordinate the efforts of Member States to roll out a number of key cross-border public services between 2012 and 2015 and identify appropriate life events/stages.

### Priority 3: Improving the efficiency and effectiveness of Governments and administrations

The actions on this priority is oriented at improving the efficiency and effectiveness of Governments and administrations by using ICT, which would enable:

- organisational processes to be improved: the Commission wants to rationalise administrative processes by transforming the ePractice portal and mainstreaming online public procurement procedures; in order to do so, the Commission, in close cooperation with Member States will set up a programme for staff exchanges between administrations in different Member States and will implement an ambitious eCommission Action Plan for 2011-2015, including full electronic procurement, a public sector information strategy and a transparency policy.
- administrative burdens to be reduced: this action aims at the simplification of administrative processes,
   e.g. through smart use by public authorities of citizens' available information and by applying the principle

of 'once-only' registration of data whereby the information needed from citizens is only collected once, on condition that data and privacy protection requirements are met;

 green administration to be prioritised: this involves reducing the carbon footprint of administrations in Member States. To this end, the Commission intends to collect best practices in order to develop indicators and evaluation procedures specifically for government.

### Priority 4: Creating preconditions for the development of eGovernment

In order to implement the actions that will enhance eGovernment services in Europe, a number of technical and legal pre-conditions need to be put in place, such as:

- promote interoperability: in order to enable collaboration between administrations in Europe. In particular, standards and open platforms offer opportunities for more cost-effective use of resources and delivery of services.
- Rely on key enablers: such as the development of electronic identification (eID) technologies and authentication services that are essential for the security of electronic transactions (in both the public and private sectors). In addition, the Commission intends to propose a revision of the eSignature Directive to enhance security;
- Benefit from innovative technical approaches: the new generation of eGovernment services will need to rely on and benefit from innovative technical approaches, such as clouds of public services and serviceoriented architecture (SOA) to build open, flexible and collaborative eGovernment services while at the same time lowering ICT costs. In particular, this action aims to identify and disseminate tested and safe solutions for clouds of public services, SOA and transition strategies for converting from IPv4 to IPv6.

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The image of page 2 is taken from ec.europe.eu.

# 04

### SMART COMMUNITIES BETWEEN GOVERNANCE AND SOCIAL PARTICIPATION

### **REVIEW PAGES: URBAN PRACTICES**

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### In this number ICTS IN PARTICIPATORY PLANNING: THREE CASE STUDIES

The desire to build sustainable and inclusive societies has come with the recognition of the value of involving the public in planning and decision-making processes (Rinner and Bird, 2009). Several initiatives word-wide have demonstrate that, if done effectively, participatory planning may have different positive social outcomes. Indeed, local governments can use participatory planning methods in order to develop policies based on shared values and trust, achieve common goals and encourage two-way communication with citizens (Yetano et al., 2010). At the same time, participatory planning process may educate citizens about the rationale and complexity of policy-making, legitimize government decisions, and provide opportunities for mutual learning (Phang and Kankanhalli, 2008). In this contest, the Information and Communication Technologies (ICTs) are believed to provide a valuable tool to enhance proactive citizen participation, as well as foster openness and transparency (McDermott, 2010). As technology has become more advanced, an increasing number of ICT-based participatory planning initiatives have been developed around the globe. In this paper, we present three European case studies:

- The use of 3D city models in the contest of two regeneration initiatives in the city of Bologna;

- The development of a ICT based platform in the context of the Hérault river basin water management plan;
- The application of a Public Participation Geographic Information Systems (PPGIS) in the context of the Helsinki Master Plan.

This contribution aims to analyze, through a case-study approach, the currently emerging opportunities offered by Information and Telecommunication Technologies in addressing social participation challenges and to identify common successful factors. In this regard, a strong collaboration between key players (i.e. local governments, policy makers, local communities and scholars) has emerged as important common conditions for the successful implementation of a participatory planning process. A second common successful factor consists in the development of a planning support tool that takes into account the complexity and the diversity of the social, environmental and economic context of reference. With different strategies and different solutions, the case studies analysed have shown how ICTs can be key factors to support collaborative dialogue between policymakers and citizens and creates results that are more readily accepted and relevant within communities by incorporating local knowledge and opinions into decision-making.



# THE USE OF 3D CITY MODELS IN THE CONTEST OF TWO REGENERATION INITIATIVES IN THE CITY OF BOLOGNA

Urban planning and renewal is a very complex process consisting of tasks that require joint decision making. In such tasks, methods that allow a clear communication of design and planning options between policy makers and citizens are considered of critical importance (Rabino et al., 2014). Transition from paper-based planning process to developing 3D city models using digital maps has simplified and expedited the decision-making process by facilitating communication between professionals and citizens about a number of issues pertaining to design and planning (Zyngier et al., 2014).

The urban API tools represent a valuable example of the use of visual 3D city model in participatory urban planning process. The project has been funded by the European Commission in the context of European initiatives to improve policy as a more transparent and understandable process. It is a three-year, multi-partner collaborative project involving a number of European Universities and local governments. The aim of the project is to develop ICT tools to support urban governance and spatial planning.

The City of Bologna is one of the local partner that is currently pursuing urban API solutions for both urban planning as well as environmental objectives. A pilot area of the city centre has been chosen for the application of the "3D Scenario Creator", a tool developed within the API project aimed at addressing the issue of stakeholder engagement in the planning process through the development and provision of enhanced virtual reality visualisations of neighbourhood development proposals.

Since 2013, the tool have been applied within two municipalities programs ("Ambiente Vitale" and "Di nuovo in centro") aiming to improve pedestrian and bike accessibility within the city centre as well as meliorate the quality of the public space for its inhabitants.

The application of the tool allows urban planners to present their plans to a wide audience and hence raise the awareness among citizens about future developments. 3D visualisations of the district's routes has been realised and presented during workshops and seminars.

The 3D Scenario Creator is currently helping planners to better visualize urban transformations in the district, improve interdepartmental collaboration and coordination in decision-making, and take account of citizens' opinions and suggestions, in line with the community participation processes already started with the many citizen committees and cultural associations.

Through the 3D Scenario Creator, citizens are able to interact with the Municipality. They can suggest, for example, the localization of bike and car sharing points, or public transportation and cycle track routes. They can also provide inputs concerning the management of pedestrians' route ways or the rubbish collection system. The use of enhanced virtual reality helps citizen in understanding and express their opinions regardless different planning options of rehabilitation of public spaces.

The tool helps planners to take easily in consideration citizens' suggestions and feeds, in order to better take care of interests and needs of the community, and come to an agreement with environmental sustainability issues.

The Bologna example demonstrates the ways in which the complexities of the policy modelling process can be facilitated by ICT tools. 3D visualisation itself provides a major advance in communication between the policy-making community (urban planners and the political domain) and urban stakeholders, including citizens.



### THE DEVELOPMENT OF A ICT BASED PLATFORM IN THE CONTEXT OF THE HÉRAULT RIVER BASIN WATER MANAGEMENT PLAN

The complex and dynamic nature of environmental problems requires flexible and transparent decision-making that reflects a diversity of values and knowldeges (Reeds, 2008). Emerging discourses on environmental management recognise the need for new approaches that encourage stake-holders participation in order to enhance adoption and practice change.

The European Union has recently recognised this need by adopting a number of directives such as the EU Water Framework Directive (WFD). The WFD provides a common approach across Europe to address many of the entrenched problems in water policy and to engage stake-holders during the planning process.

One interesting example of the possible uses of ICTs in participatory planning concerning with environmental issues has been developed in the context of the Hérault river basin water management plan, where a multimedia ICT based platform to inform the debate on water resource management has been developed.

The Hérault river basin is a small Mediterranean river basin, covering an area of approximately 2500 square kilometres. In 2003 the local authorities have initiated a formal concertation where the key stakeholders interacted to design a river basin water management plan. Parallel with the preparation of the concertation process, a ICT-based platform was developed to address different types of audiences (citizen, farmers, representative of the industrial sector and of representatives of public bodies) both in terms of visualisation and contents.

The platform consists of several modules witch can be accessed by the users through an interactive multimedia interface.

The first module introduces the user to the region of concern. Then, through a menu, the user can access to several types of base information such as the uses of water and hydro system services, georeferenced spatial information, governance issues, relevant social actors involved in the planning process, etc.

Through a second module, the user can explore different scenarios by generating them through a scenario generator of plausible futures. Each scenario is the result of different driver factors that can be selected by the user (e.g. regulation or constraints imposed on agricultural uses, further exploitation of the aquifer, etc). Once the user has generate one or more scenario, it can assess each scenario, selecting between several performance indicators.

The definition of the driver's factor as well as the criteria to asses different options has been defined trough a set of 70 semi-structured interviews with representatives from various categories of users and with municipalities, environmental protection associations, actors involved in tourism activities and civil servants from various government agencies. The information collected during these interview has been also used to the identification of a number of conflicts between stakeholders.

After these interview, the platform has made accessible by a number of stakeholders involved in the planning process that explored its potentiality individually.

According to the users of the platform, the tool was likely to have a strong impact on potential users and influenced the outcome of the debate. The stakeholders found that the tool have the potential to improve inclusiveness by providing a shared ground where exchange of knowledge is possible (Pereira et al., 2003).



### THE APPLICATION OF A PUBLIC PARTICIPATION GEOGRAPHIC INFORMATION SYSTEM IN THE CONTEXT OF THE HELSINKI MASTER PLAN

Citizens' knowledge provides a rich source of updated information that helps planners to improve the quality of the analysis, leading to different solutions than when using traditional forms of data (Bugs et al., 2010). In the last decade, advances in Geographic Information Systems (GIS) and Web 2.0 technologies provide new ways of incorporating local knowledge into urban planning using online GIS tools. The term "PPGIS" (public participation geographic information systems) refers to the possibility of engaging local communities is the public hearing by creating sophisticated Web applications that strengthen social interactions based on comments on online maps (Gordon et al., 2011).

An interesting application of PPGIS can be found in the Helsinki city master Plan. Finland has a long democratic tradition involving citizens in the plan making process. The city of Helsinki is currently drawing a new City plan, which will guide the development of Finland's capital until 2050. The City plan, named Vision 2050, is founded on the idea of Helsinki will be an urban, rapidly growing rail transport network city with expanding central areas coupled with other developing centres. In 2012 the Helsinki City Board launched a programme to promote local civic participation with the help of democracy pilot projects. The pilot projects were intended to increase resident participation and resident opportunities to influence City decision making. People can participate in the preparation of the City plan in various ways throughout the planning process: by participating in information sessions and in discussions on the City plan website, contacting the planners or leaving an opinion during the official display periods.

The City Planning Department has also opened a map-based survey to chart the views of residents to support the development of the new city plan. The web-based survey has been developed by Mapita, a Finnish company spawned from the research group Land Use Planning and Urban Studies of the Aalto university, working closely with City Planning Department. The web survey allows Helsinki residents to express their thoughts on the city's future. The survey attracted some 4,700 respondents and allowed respondents to mark locations on the map to indicate where they would like to see residential development and where the city's key recreational areas should be located. Respondents to the map survey also indicated many locations where new or improved transport connections are needed, approximately 4,000 locations in total. The survey was available in three languages: English, Swedish and Finnish. It produced nearly 33,000 notifications about possible sites for new construction, valuable recreational areas and transport connections that residents are in dire need of. Due to this project, Helsinki became the first major world city to use PPGIS to inform its comprehensive city planning process. The map-based questionnaire also provided city planners with information on which proposals garnered more wide-spread support. The city of Helsinki published all the survey data online and organized a competition for software developers with the aim of developing new and interesting methods for utilizing the data collected during the survey.

The Helsinki example demonstrates how PPGIS could be a cost-effective tool for exploiting the local knowledge as well as enhancing effective participation and communication among experts and non-experts via an easy-to-use and interactive exchange platform.

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# 05

### SMART COMMUNITIES BETWEEN GOVERNANCE AND SOCIAL PARTICIPATION

## REVIEW PAGES: NEWS AND EVENTS

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In this number URBAN SMARTNESS

One of the most important aspects in the study of smart city is that of the human component. Thanks to the diffusion of Information and Communication Technology, citizens will have the opportunity to participate actively in decision-making processes of local development. In fact, there are many solutions or tools that offer both citizens to be able to express their needs and those who are in charge of the urban development plan to be able to know the socio-economic and environmental needs of those who live in the area. So the solutions related to smart city can facilitate communication and the exchange of information between the various actors that contribute to urban development. In addition to the positive effects on the process of urban planning ICT has also enabled an improvement in the economic and social conditions of the inhabitants. In fact, thanks to the development of these new technological networks have made it much faster and economic interactions between the different actors in the area, developing new types of economic activities.

In this issue have been selected some international events that will take place in the coming months and that highlight the importance of paying particular attention to the analysis of social phenomena in the development of new solutions and in the application of technologies related to smart city planning.



### SMART SYSTEM PLATFORM DEVELOPMENT FOR CITY AND SOCIETY, GOESMART 2014 Where: Bandung – Indonesia When: 24 - 25 September 2014 http://iciss2014.stei.itb.ac.id/index.html

The School of Electrical Engineering and Informatics Institute Technology Bandung (Indonesia) and Institute of Electrical and Electronics Engineers (IEEE) organize this international conference to put in evidence the advancement of smart system research and study on Information and Communication Technology (ICT). The development of ICT is now able to connect, monitor and control various human resources, objects, the humans and objects and with other natural components. These new solutions allow an improvement process more effective, easy, inexpensive and efficient. The main topics that are covered in this conference are the

concept of smart village, smart city, smart community, smart transportation, smart education, smart health, etc., in order to improve the quality of life in rural, urban and community.



SMART CITY EXHIBITION Where: BOLOGNA – ITALY When: 22 - 24 October 2014 http://www.smartcityexhibition.it/

The SMART City Exhibition is the result of a partnership between FORUM PA and Bologna Fiere whose third edition will be held in Bologna. The event offers a new vision of the concept of the city as a set of information flows and networks of relations and communications, physical and digital, characterized by the ability to create social capital, well-being for individuals, better quality of life. Also novelty is the formula, centered on participatory and collaborative moments of work on the presentation of large international scenarios, on the construction of new shared culture that helps the transform the country with the project-a series of initiatives are not always coordinated. The main objectives of the SMART City Exhibition are to highlight the basic steps for a strategic and holistic urban ecosystem, offer moments of awareness and training for political and administrative leadership to confronting on the new models of procurement and public-private partnership. The event is organized to promote dialogue between executives, political and administrative ministries, the academia and research, individual professionals, technicians working in all fields that connect to urban living, representatives of technology companies, small and medium-sized enterprises, innovative young "makers" creative, citizenship and organized individuals interested in pursuing policies to improve the welfare and quality of life in cities



# THE FIRST INTERNATIONAL CONFERENCE ON IOT IN URBAN SPACE

Where: ROMA – ITALY When: 27 - 28 October 2014 http://urbaniot.org/2014/show/home

The First International Conference on Internet of Things (IoT) in Urban Space (Urb-IoT 2014) is a new conference that aims to explore the dynamics with the scope of the IoT and the new science of cities. The growth creates of urban population an unprecedented urge for understanding cities to enable planning for the future societal, economical and environmental well being of their citizens. The increasing deployments of Internet of Thing (IoT) technologies and the rise of so-called "Sensored Cities" are opening up new avenues of research opportunities towards that future. The urban spaces are the man made microcosms where a number of entities interact with each other to offer citizens a variety of services, for instance, buildings and infrastructure, transportation, utility, public safety, healthcare, education. The conference is uprising to technology experts, researchers, designers, urban planners, architects in academia and industry, and promises to offer a perfect forum to share knowledge, experiences, and best practices primarily in the area of Citizen Awareness and Engagement, Urban Analytics and IoT Applications and Services in Urban Context. The event is endorsed by the European Alliance for Innovation, a leading community-based organization devoted to the advancement of innovation in the field of ICT and will be co-located with the IOT360 Summit.



### SOCIAL INNOVATION/SMART CITY WEEK – INTERNATIONAL CONFERENCE Where: YOKOHAMA – JAPAN

When: 29 - 31 October 2014 http://expo.nikkeibp.co.jp/social/english/

The three days of Conference and Exhibition at Pacifico Yokohama are organized by Nikkei Business Publications (Nikkei BP). The conference is designed to provide a seat for stakeholders in Japan and other countries working to address social issues to forget new partnerships with corporations and to identify possible new technologies and solutions that can facilitate resolution. In this edition are expected some 50,000 participants with 3000 plus visitors from 80 countries. In particular the representatives of emerging nations of Asia and Africa, where business opportunities are ample, come to this event to seek out the knowledge, technology, and solutions of Japanese corporations and local governments.

The conference was divided into several thematic events that aim to deal with the different aspects related to the use of new technologies for improving the quality of life, which are:

- Smart City Week, a vision for society and the role of cities;
- Energy security / management, optimal solutions to securing independent energy sources;
- Infrastructure renovation, reducing the impact of disasters and facilitating recovery through prediction and collaboration;
- Disaster prevention, technology-powered medicine, health, and nursing care for the future;
- Impact of technology, new means of forging our future.



OPEN WORLD FORUM Where: Paris – France When: 30 October - 1 November 2014 http://www.openworldforum.paris

The Open World Forum is the first European summit to gather political representatives, decision-makers and experts, in order to debate the technological, economic and social impacts that the Free and Open-Source technologies bring to market. The forum is now organized annually in Paris, with more than 200 speakers coming from 40 countries and a global audience that was 2200-people strong in 2013. The Open Source Forum The Open World Forum is held in partnership with all the major international communities and the main French Open Software organizations, with the support of local government. The event bringing together decisions-makers, developers and users from all over the world to cross-fertilize open technological, business and social initiatives, to shape the digital future. The main objective will be to illustrate the major role of Openness (Free and Open-Source Software, Open Data, Open Hardware, Open Design, etc.) in the digital society, understand and leverage the key subjects that are transforming the open source ecosystem (Web, mobile phones and tablets, Big Data, cloud infrastructure, software quality, emerging languages and platforms) and the advantages to use the Free and Open Source software in the day-to-day life



### SMART CITY EXPO WORLD CONGRESS 2014

Where: Barcelona - Spain When: 18 - 20 November 2014 http://www.smartcityexpo.com/

The Smart City Expo World Congress (SCEWC) is the leading event where representatives of cities, institutions, universities and industry meet together to showcase and discuss the best ideas and solutions for the smart cities of the future.

Barcelona's SCEWC 2014 will continue to investigate the most innovative developments transforming our cities, happening in the worlds of technology, energy, governance, sustainability and mobility while always maintaining the society and the citizens at the centre of the debate. The Smart City Expo World Congress is a meeting point for companies, public administration, entrepreneurs and research centres to show, learn, share, network and gather inspiration to support the development of cities of the future. The topics of the conference are Smart Society, Technology, Governance, Energy, Mobility and Sustainable City.



### 3RD ANNUAL WORLD INTELLIGENT CITIES SUMMIT 2014

Where: Istanbul – Turkey When: 10 - 11 December 2014 http://www.wicsummit.com/

The Third Annual World Intelligent Cities Summit and Exhibition is one of the most important forum on future development of cities and regions will require the intelligent integration of communications technology, coupled with changing behaviour in how use this technology, to make our cities and regions smarter and more energy efficient. The main research topics that will be discussed during the conference are the drive innovation, boost efficiency, leverage data, upgrade service delivery and achieve economic prosperity.

This forum is an international platform for the transfer of knowledge, allowing leaders of municipalities to learn from the pioneers of smart city concepts and technologies.

#### Gennaro Angiello

Engineer, Ph.D. student in Civil Systems Engineering at the Federico II University of Naples. His research interests are in the field of accessibility analysis and modeling, land-use and transport interactions and sustainable mobility. He is currently involved in the research project Smart Energy Master and in the COST Action TU1002 accessibility Instruments for Planning Practice in Europe

#### Gerardo Carpentieri

Engineer, graduated in Environmental and Territorial Engineering at the University of Naples Federico II with a specialization in governance of urban and territorial transformations. Since 2014 he has been a PhD student in Civil Systems Engineering at the Department of Civil, Building and Environmental Engineering – University of Naples Federico II. In July 2013 he won a scholarship within the PRIN project on the "Impacts of mobility policies on urban transformability, environment and property market". Since 2011 he represents the UISP (Italian Union Sport for all) in the Forum Civinet Italy. In December 2012 he started collaborating with TeMA Lab.

#### Valentina Pinto

Engineer, Ph.D. student in Hydraulic, Transport and Territorial Systems Engineering at the University of Naples Federico II. Her research activity at DICEA department of the University of Naples Federico II is aimed at studying the relation among city, mobility, and environment and consists in setting up a support tool for the public decision-maker in individuating the possible influences of the urban planning policies on mobility tools.

#### Laura Russo

Engineer, Ph.D. student in Civil Systems Engineering at University of Naples Federico II. She received a master's degree in Architecture and Building Engineering with a thesis on urban expansion and the sprawl phenomena, with particular attention for Campania.

#### Floriana Zucaro

Engineer, graduated in Environmental and Territorial Engineering at the University of Naples Federico II with a specialization in management of urban and territorial transformations. Since 2012 she has been a PhD student in Hydraulic, Transport and Territorial Systems Engineering at the Department of Civil, Building and Environmental Engineering – University of Naples Federico II. Since 2014 she has been a scholarship holder within the Project Smart Energy Master for the energy management of territory financed by PON 04A2\_00120 R&C Axis II, from 2012 to 2015. Her research activity is focused on the integration of land use planning, sustainable mobility and energy saving policies in urban contests.