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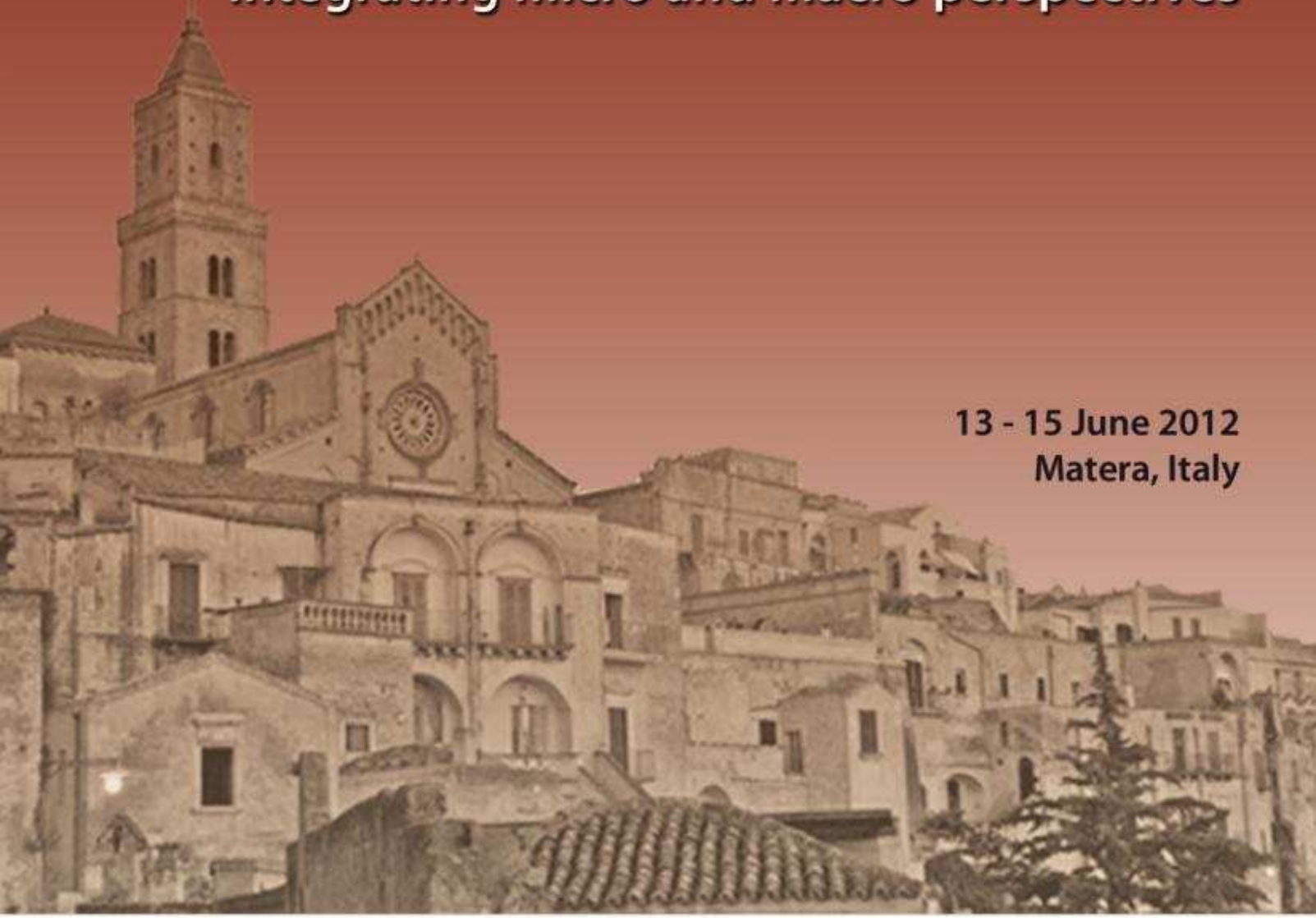
Knowledge, Innovation and Sustainability: integrating micro and macro perspectives



13 - 15 June 2012
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PROCEEDINGS E-BOOK

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Towards a Deep Integration of Socio-Economic Action and Spatial Planning

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Structured Abstract

Purpose – It is now time to recognize that self-organizing socio-economic actors can and must act directly on the pursuit of territorial development and cohesion or, in other words, that the broadest possible number of socio-economic actors must be involved, to this end, in co-creating products, services and innovative content. ICTs can greatly help to go forward in this direction, allowing the merging of regulation, implementation of policies and spontaneous transformation, thanks to their interactivity and their potential of diffusion of "usable knowledge" (Lindblom and Cohen, 1979).

Design/methodology/approach – The proposed approach relies on the notion of Living Labs (LLs), or better on that of "Territorial Living Labs" (TLLs). At the heart of the Living Lab approach is the idea of "co-design", through which users participate in the ICT R&D process from the outset. A TLL is a LL taking in particular account the deep link to the community (business, social, cultural) that shifting technology R&D out of the laboratory and into the real world implies, in terms of focusing of the transversal problems of cities and territories, instead of merely the sector of ICT R&D.

Originality/value – The above mentioned approach is potentially able to overcome the traditional and despite all persistent dichotomy between socioeconomic activities and spatial planning, as well as between social and technological aspects of territorial innovation.

Practical implications – The TLL approach is now under experimentation in the European CIP ICT PSP "Periphèria Project - Networked Smart Peripheral Cities for Sustainable Lifestyles" (http://www.peripheria.eu/). Periphèria is a 30-month Pilot B action funded by the European Commission under the CIP ICT PSP Programme aiming at deploying convergent Future Internet (FI) platforms and services for the promotion of

sustainable lifestyles in and across emergent networks of "smart" peripheral cities in Europe. The outcomes of the Periphèria experimentation relate to transformational shifts in urban structures, lifestyles and work styles required to reach economic, social, environmental and cultural sustainability.

Keywords – Spatial Planning, Spatial Transformation Agents, Territorial Innovation, Territorial Living Labs, Future Internet

Paper type – Academic Research Paper

1 Introduction

In the traditional view, town and country planning is intended as a separate instance of top-down control of the territorial transformation processes, aimed at achieving a state of order and formal balance, or social, or environmental, etc.

Differently, on the basis of a reconstruction of "the history concept and policy background of territorial cohesion", Faludi (2009) identifies this latter with spatial planning, intended as referring to the value added to the social cohesion policies, aimed at reducing disparities, enhancing competitiveness and promoting sustainability, "taking account of where they take effect, the specific opportunities and constraints there, now and in the future". In other terms he assimilates spatial planning/territorial cohesion to a "strategic spatial framework for intervention", in the French meaning of *aménagement du territoire*.

Furthermore, the top-down view of planning has been by long time subjected to heavy criticism in and out the planning discipline, so that a more or less participatory and shared approach to decision making is a consolidated capital of studies and techniques affecting physical space.

However, both the participatory instance and the "decision-centred view" of planning (Faludi, 1985) underlying the assimilation of territorial cohesion and spatial planning, are still strongly influenced by a vision of this latter as a decision support technique, which relentlessly forces it into a scheme in which one (government) or more (governance) enabled subjects have to take a decision "with the participation" or the "involvement" of other "not enabled" subjects. In other words, it is always a sharing "from outside".

But spatial transformation effects, as some scholars of planning theory have rightly pointed out (Lindblom and Cohen, 1979; Crosta,1998), are largely produced because of a myriad of micro-decisions that actors take "from inside" their fields of action and

expertise, using the knowledges available *hic et nunc*, and variously interacting each other. The claim to control the actions of others of the classical planning, but also the involvement "from outside" of the participatory and strategic forms of planning, not only collide against this evidence, but they even prevent to implement the policies pursued by institutional decision makers themselves, profiting from the actions of the multitude of "spatial transformation agents".

It is therefore time to recognize that self-organizing socio-economic actors can and must act directly on the pursuit of territorial development and cohesion or, in other words, that the broadest possible number of socio-economic actors must be involved in co-creating products, services and innovative content consistent with this end.

ICTs, in the ways outlined below, can greatly help to go forward in this direction, allowing the merging of regulation, implementation of policies and spontaneous transformation, thanks to their interactivity and their potential of diffusion of "usable knowledge" (Lindblom and Cohen, 1979).

2 Territorial Living Labs

To overcome the above cited limitations of both traditional and current forms of spatial planning, in order to go towards a deeper integration of this latter with socio-economic action, the approach here proposed relies on the notion of Living Labs, or better on that of "Territorial" Living Labs.

At the heart of the Living Lab approach is the idea of "co-design", through which users participate in the ICT R&D process from the outset.

This kind of user involvement makes a Living Lab deeply linked to the community (business, social, cultural) *where* it is set up (Marsh, 2008). In this sense cities and territories (the *where*) can be considered as socio-digital interaction spaces where the most complex problems faced by nowadays societies can be effectively challenged.

Territorial Living Labs (TLLs) can therefore act as interfaces between technologies and human settlements. While a Living Lab is in general based on the premise of shifting technology R&D out of the laboratory and into the real world, the emphasis on territorial aspects derives from focusing of a transversal role of TLLs in the various fields related to the above cited problems of cities and territories, instead of a merely sectoral in the field of ICT R&D (Marsh, 2008). In this sense "territorial" means "transversal", i.e. it implies a

transversal policy approach covering any specific sphere of intervention capable of integrating territorial competitiveness and sustainability, in which the policy role of TLLs can be defined within an objective we can call "Territorial Innovation": an integration between technology innovation and social, economic, cultural and institutional innovation based on the valorisation of Territorial Capital (Marsh, 2008).

3 Periphèria: Networked Smart Peripheral Cities for Sustainable Lifestyles

Periphèria (http://www.peripheria.eu/) is a 30-month Pilot B action funded by the European Commission under the CIP ICT PSP Programme and it aims at deploying convergent Future Internet (FI) platforms and services for the promotion of sustainable lifestyles in and across emergent networks of "smart" peripheral cities in Europe.

Five Pilot City Partners (Athens, Bremen, Genoa, Malmö, Palmela) together with seven additional Sponsoring Cities (Lisboa, Helsinki, Rio de Janeiro, Budapest, La-Ferté-sous-Jouarre, Larnaca, Malaga, Malta, Palermo) form the core of the Periphèria Smart City Network.

Aiming at developing the Living Lab premise of shifting technology R&D out of the laboratory and into the real world in a systemic blend of technological with social innovation, Periphèria posits that through the convergence of socio-technical elements belonging to the Internet of Things (IoT), the Internet of Services (IoS) and the Internet of People (IoP) it will be possible to leverage the transformational capacity of the (peripheral) Cities of Europe in terms of the urban structures, lifestyles, and workstyles required to reach more ambitious targets of economic, social, environmental and cultural sustainability.

Central to the above transformational capacity is the concept of community interaction of 'People in Places'. Consistently with this concept five archetypical "Arenas" are defined, intended as specific urban settings with specific social features and technological requirements, where co-design and service integration processes unfold. To each Arena, an identified City partner is associated:

- Smart Neighbourhood where media-based social interaction occurs (Malmö, SE)
- Smart Street where new mobility behaviours develop (Bremen, DE)
- Smart Square where participatory civic decisions are taken (Athens, GR)

- Smart Museum and Park where natural and cultural heritage feed learning (Genoa, IT)
- Smart City Hall where mobile e-government services are delivered (Palmela, PT)

Beyond the above general description is worth to highlight two main aspects of the Periphèria project.

Firstly, behavioural transformations towards sustainable lifestyles emerges through replicable, scalable and transferable patterns of personal and collective innovation (called Behavlets) occurring within specific, elementary units of FI-powered city space (called Urblets). Behavlets and Urblets are thus the main impact drivers of change, which will be identified, described and classified during the project in the perspective of future business exploitation. For example, in the case of Malmö City Pilot, Urblets are provided to measure energy consumption occurring in shared spaces and resources, and to visualize it on public displays and/or an internal TV channel, in order to promote more virtuous energy consumption Behavlets, ideally scalable from homes to shared spaces and to public institutions, such as schools or sports facilities.

The second main aspect to highlight, even more relevant for spatial planning, is that such a kind of Living Lab-like co-creation and co-design of Urblets/Behavlets - or to say better, of technological Urblets intrinsically embedding potential social Behavlets - occurs or should always occurs in the framework of "structuring scenarios" (Concilio&Celino, 2010), intended as open representations of the future and of the pathway to getting to it, aiming to structure collective action. Nevertheless, as the future is unforeseeable, unpredictable, and uncertain, the "to-do scenarios" developed by each city pilot is conceived as an “emergent vision” sensu P.Lévy (1994), i.e., not as a still image of the future coming from elsewhere, from above, or from a separate organ of collective intelligence, but as emerging from the interactions and contacts, as shaped by common projects and as reciprocally able to reflect and refract in individual projects and strategies and to polarize the molecular processes that can contribute to move to the image of the collective dynamic. In other words, Periphèria structuring scenarios are long-term scenarios and do not converge towards single and definite visions of the future; they point at structuring and modifying the framework of interaction among actors who have to develop and manage the image of multiple possible futures coherent with the scenario. In this sense, structuring scenarios are loosely coupled description of the many possible futures and are conceived as evolving together with the decision system and,

consequently, to represent the continuous modifications that the interaction context produces (Concilio et al., 2012).

7 Conclusions

The TLL approach to socio-technical innovation, as applied in the Periphèria project, seems potentially able to overcome the traditional and despite all persistent dichotomy between socioeconomic activities and spatial planning, as well as between social and technological aspects of territorial innovation. Furthermore, it seems also able to go beyond other pertinacious forms of "dualistic thinking", as the opposition between public and private, social and economic, institutional and not institutional, individual and collective, etc.

Of course, the gradual overcoming of so ingrained mental habits, even in the social, economic and territorial fields, still requires many efforts, such as that attempted by the Periphèria project.

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