

# NEWSLETTER NUMBER 4 OCTOBER 2008

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RESEARCH CENTRE FOR TERRITORY TRANSPORTS AND ENVIRONMENT

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## RECENT PUBLICATIONS

Barbot, C, Costa, A, Sochirca, E (2008) Airlines performance in the new market context: A comparative productivity and efficiency analysis, *Journal of Air Transport Management*, 14(5), 270-274.

Breda-Vázquez, I, Oliveira, C (2008), Coalitions Building in Portuguese Spatial Planning: Is There a Southern European Context?, *European Planning Studies*, 16(6), 761-784.

Pinho, P, Oliveira, V (2008) Cartographic analysis in urban form studies: the GIS contribution, *Environment and Planning B: Planning and Design* (advance online publication, doi:10.1068/b34035).

Rebelo, E (2008) Land economic rent computation for urban planning and fiscal purposes, *Land Use Policy*, (advance online publication, doi:10.1016/j.landusepol.2008.07.008).

Oliveira, V, Pinho, P (2008) Evaluating plans, processes and results, *Planning Theory & Practice* (forthcoming, 10(1)).

## PROPOSALS/RECENT CONTRACTS

Sustainable Land Use Policies for Resilient Cities/SUPER-CITIES. To begin in 2009. Financial support by FCT/UE (project of URBAN-NET network). This European project was recently approved and involves the following institutions: Middle East Technical University, Delft University of Technology, Nordic Centre for Spatial Development, Urban and Spatial Planning Research Laboratory.

Application to two FCT Doctoral degree grants (*on-going* evaluation).



Oporto axial map (integration)

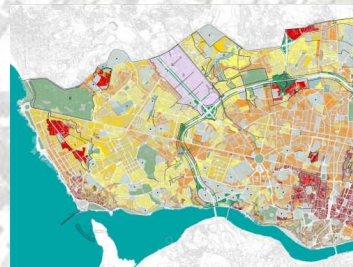
## EDITORIAL. RESEARCH UNIT 1

Dear Reader,  
Since the first issue of our newsletter, back in March 2007, dedicated as this one to the research activities carried out within the remit of our Research Unit One on Planning and Environmental Evaluation, this research unit, I have the pleasure to coordinate, has steadily been growing in both the number of full time PhD researchers and the number, size and importance of the international research projects in which it is and it has been involved directly. At the moment, the unit accounts with six full time Senior Researchers (with a PhD) and eight young researchers, most of them PhD students. As the main articles of this newsletter clearly suggests, most of the funding come from external sources, in particular from EU research projects (FP7). As far as publications are concerned, the overall output per researcher has also been growing, and it is surely well above Portuguese averages, as compared to similar centres and research groups working in planning and related subjects. But we know for sure that we are still well behind the most productive research centres in Europe and the US. And this is the direction we should look into, with ambition and realism, knowing that we still have some structural weaknesses to overcome, but that we can also count with a new generation full of potential, enthusiasm and creativity.

Paulo Pinho

### Evaluation in urban planning

The first research project to be presented in this Newsletter corresponds to a PhD thesis, on the evaluation of urban planning, concluded in January. The first part of the thesis corresponds to a theoretical and methodological framework. To begin with, it focuses on some important issues of planning-evaluation, the evolution of evaluation theory and methods throughout the twentieth century, the contemporary debate characterized by the tension between different paradigms, and the analysis of the professional practice as well as of the design of planning-evaluation methodologies. In the end of the first part, the morphological dimension of planning proposals, another theme of the debate, is approached. The second part of the thesis focuses on the design of an evaluation methodology, an on its application to the *Planos Directores Municipais/PDM* currently in force in Lisbon and in Oporto. After the identification of the main contributions from the literature review, the fundamental elements of this methodology are made evident - the generic and specific criteria, the evaluation questions, the way planning is assessed under the proposed criteria and questions, and the data sources. Each of these local plans is appraised according to rationality, conformance and performance, and a number of planning proposals are presented to improve planning practice on each city, based on the evaluation conclusions. Finally, a comparison of results from both case studies is outlined.



2006 Oporto PDM and 1994 Lisbon PDM in *Evaluation in urban planning*

The study is concluded emphasizing the thesis that it is possible to design and apply an on-going evaluation methodology of local plans, with an element of urban form analysis, which evaluates, and with its results contributes to enhance, the quality of these plans, of the local planning processes, and of the built environment they are expected to shape.

Vítor Oliveira

Rocha, C, Carvalho, A (2008) Portuguese Real Estate Taxation, Land Use and Noise, *INTERNOISE 2008*, 26-29 October, Shanghai.

Breda-Vázquez, I, Conceição, P, Mória, P (2008) Evaluation as a form of learning: a methodology for urban policy networking, *EURA Conference*, 8-11 October, Milan.

Oliveira, V, Pinho, P (2008) Bridging the gap between planning evaluation and programme evaluation: the contribution of the PPR methodology, *8<sup>th</sup> EES Conference*, 1-3 October, Lisbon.

Cortesão, J, Alves, F, Corvacho, H (2008) The Public Space Surfaces and Summer Thermal Comfort. *LCUBE conference (Cost Action C23)*, 24-25 September, Munich.

Silva, C, Pinho, P (2008) The Structural Accessibility Layer (SAL): a design support tool for urban mobility management. *LCUBE conference (Cost Action C23)*, 24-25 September, Munich.

Alves, F, Conceição, P, Cortesão, J, Pinho, P (2008) The new Azores Regional Plan as a tool to regulate the sprawled growth in the insular Portuguese territory, *44<sup>th</sup> ISOCARP Congress 2008*, 19-23 September, Dalian.

Santos, S, Pinho, P (2008) The impact of closed condominiums in the urban form and structure of metropolitan areas, *44<sup>th</sup> ISOCARP Congress*, 19-23 September, Dalian.

Breda-Vázquez, I (2008) Does segregation help to understand spatial patterns of social disadvantage in Greater Porto? An assessment of the 'spatial division' of urban disadvantage, *ISA Congress*, 5-8 September, Barcelona.

Breda-Vázquez, I, Oliveira, C, Guimarães, R (2008) Creativity and urban dynamics: analyzing social innovations in Porto Metropolitan Area, *ISA Congress*, 5-8 September, Barcelona.

Oliveira, C, Breda-Vázquez, I (2008) Comparing territorial governance: the cases of EU-funded sub-regional programmes in Portugal and Italy, *4<sup>th</sup> ACSP/AESOP Joint Congress*, 6-11 July, Chicago.

Oliveira, V, Pinho, P (2008) The Plan-Process-Results (PPR) methodology for planning evaluation, *4<sup>th</sup> ACSP/AESOP Joint Congress*, 6-11 July, Chicago.

Santos, S, Pinho, P (2008) Privately governed neighbourhoods: the two faces of the same coin, *4<sup>th</sup> ACSP/AESOP Joint Congress*, 6-11 July, Chicago.

#### SCIENTIFIC MEETINGS ORGANIZATION

CITTA 2<sup>nd</sup> Annual Conference on Planning Research, Oporto, May 2009.

45<sup>th</sup> ISOCARP International Congress, Oporto, 18-22 October 2009.

#### Comparative accessibility for mobility management. The Structural Accessibility Layer

The second research project corresponds to another PhD thesis, on accessibility and mobility management, concluded in July.

The need to integrate land use and transport policies has been widely recognised as an important approach within the 'predict and prevent' paradigm for mobility management. Nevertheless, such integration is seldom put into practice. The lack of design support tools is pointed out as one of the reasons for this fact.

The accessibility concept is believed to provide a useful framework to support the design of integrated land use and transport policies. This thesis hypothesises that measures of comparative accessibility by transport mode can operationalise the accessibility concept for this purpose. In order to test this hypothesis, a design support tool was developed, based on a measure of comparative accessibility - the Structural Accessibility Layer (SAL). The usefulness of the tool, and thereby of comparative accessibility, was tested. The testbed is composed of the application of the tool to a case study and of expert interviews evaluating that application. The case study provides insight into its potentials as design support tool for integrated land use and transport policies. Expert interviews enable the assessment of the robustness, usefulness and applicability of the tool. The results of the testbed suggest that the SAL provides a useful operational form of the accessibility concept for design support. The use of comparative accessibility has clearly a key role in the ease of understanding and design support abilities of the SAL. This research concludes that measures of comparative accessibility by transport mode seem to provide a useful design support framework for integrated land use and transport policy, shedding light on the sustainability of potential mobility enabled by land use and transport conditions.

Cecilia Silva

#### MOPUS - MObility Patterns and Urban Structures

The third research project (began in January) draws on two previous investigations concerned with complementary factors and motivations underlying urban passenger mobility patterns. One of these, mentioned above, is focused on the concept of 'potential accessibility'. The other, developed a comprehensive study of urban structure and travel behaviour and has recently been applied to the Copenhagen Metropolitan Area (CMA) by Petter Naess. The aim of this methodology, focusing on behavioural aspects, is to identify the relationships and mechanisms through which the location of residence influence travel behaviour. The possibility to combine these two complementary research methodologies is the distinctive and innovative contribution of this proposal. This combination will involve the application of our methodology to the CMA and the application of Petter Naes's methodology to the Oporto Metropolitan Area (OMA). In this way, the structural and behavioural aspects of mobility patterns will be analysed and compared in both case studies, taking advantage of the previous work already carried out in both sides. In addition, this project is expected to provide clear evidence of the real importance of different metropolitan structures, since the OMA clearly is a polycentric urban structure, whereas the CMA is very much a typical monocentric metropolis.

#### SUME - Sustainable Urban Metabolism for Europe

The fourth research project (to begin in January of 2009) is based on the concept of urban metabolism. This concept helps to understand and analyze the way how societies use resources, energy and land, all elements of the environmental system, for maintaining and reproducing themselves. SUME is about how future urban systems can be designed in a way which is consistently less damaging to the environment than the current status. Its main challenge is to find a sound strategy to link the urban metabolism approach to urban development concepts in a way helpful to foster a more sustainable development path of urban areas in the future. SUME will analyze the potential to transform existing urban built environment in order to significantly reduce the impact on resource/energy consumption. SUME will analyze the technological and spatial qualities of built urban systems, and analyze the impacts of these "urban forms" on the qualities and quantities of resources needed and maintain them. Based on this analysis it will be shown what kind of urban forms and which built structures can be used in order to reduce resource and energy consumption in urban systems. SUME will thus enhance Europe's competitiveness in a wider sense and in a sustainable way. It will create approaches and point to ways how future urban development can be de-coupled from negative environmental and social effects while allowing for economic development.