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Transportation Research Procedia 24 (2017) 345-353



3rd Conference on Sustainable Urban Mobility, 3rd CSUM 2016, 26 – 27 May 2016, Volos, Greece

# Four stories for sustainable mobility in Greece

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#### Abstract

Modern Greek cities experience socio-economic changes that result to their urban form and to their urban transport systems. More specifically, throughout the last five years, Greeks have been trying to find the most economic way of urban transport while, at the same time, people worldwide have been interested in making cities more sustainable and environmentally friendly. The vision of a "sustainable" and "economic" city seems to be the most important goal for policy makers, nowadays. As a result, the term "compact city", which seems to represent this vision, is cited in a growing number of studies and policy papers concerning urban planning. However, there are researchers and urban planners who express strong doubts about that, as well as about the applicability of the model in Greek cities where urban sprawl is a common phenomenon due to the fact that housing developments are constructed in areas outside organized city plans and without permission. Thus, the question that commonly rises is if the model of "compact city" is the ideal city form that can meet the needs of locals. Even in that case, how can we manage the transport transition from a car-centric city to a sustainable and economic city?

This paper attempts to answer these questions and to provide a guide of good practices to mitigate the generated traffic and urban problems resulted by the transformation process. To achieve this objective, four medium sized Greek cities which, despite their similarities, differentiate as far as concerning urban life and their morphology have been selected as case studies. Through examining the transformation and comparing them we aim to realize the results of the implementation of a sustainable urban transport system. As these four cities have been assessed as examples with an important sustainable impact, we took the advantage of these cases and created a guide of good practices in order for anyone is interested to be informed about the process and the benefits from the implementation of sustainable urban mobility schemes.

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Keywords: sustainable mobility schemes, case studies, people engagement, Greece.

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#### 1. Introduction

As part of the long search for the appropriate urban form (Barbopoulos, et al, 2005), two conflicting urban planning models have been formulated: (a) the model of the "diffused" city and (b) the model of the "compact" city. The former is based on the policy of expansion and development of uniform urban arrangements, with undefined boundaries that extend in the scope of local human activity (Aesopos, 2006), low urbanization and sociability. On the other hand, the latter adopts a design standard for the control of urban sprawl (Rodi, 2012) with compact and flexible allocation of mixed uses, which utilize as a social life center the small surface public space (Klampatsea, 2012).

The aim of both of these models is the "sustainable city". The first model aims to improve the quality of life through the interplay between the natural and urban environment and the reduction of building density (Vlastos & Milakis, 2006), while the second focuses on the restriction of urbanized land and the protection of the natural landscape on the

outskirts of cities, a better perception (in sensory, experiential and social terms) of public space (Aesopos, 2006) and the reduction of energy consumed to serve urban travel, through the implementation of sustainable mobility systems (Vlastos & Milakis, 2006). The development of more energy efficient cities, through the implementation of the "compact city" model led to the identification of this model with the "economic city". In this context, since the early 1990s, the European Union seeks to promote the model of the "compact city", through a series of policy documents and thus sustainable urban mobility comes to the fore as a means of mitigating the existing urban problems.

In the case of Greek cities, how can they with an already existing coherent structure become viable? To what extent can methods for sustainable mobility be implemented satisfactorily in the Greek territory? And how will the transition to the new reality of mobility be realized smoothly? This specific research work attempts to provide answers to these questions through the examination of four Greek cities that have implemented similar strategies.

#### 2. Methodology

The methodological framework of this study is based on the analysis of case studies. It is a common type of research in the field of sustainable mobility (Bakogiannis, et.al., 2014), which according to Jennings (2001) is a kind of primary research since it offers new information both qualitatively and quantitatively. The cities were selected based on the following criteria: (a) the variation in their population size, (b) the variation in morphology, (c) the spatial-typological differentiation between coastal and non- coastal cities and (d) the difference in their socioeconomic sizes which characterize them.

The four cities were compared with respect to: (a) their existing state, (b) the proposed urban and transportation planning, (c) the organization of their action plan and transition plan from their existing state to the proposed one and (d) their expected outputs (cf. in Yin, 2003). In their review were instrumental the literature review and the review of other such studies.

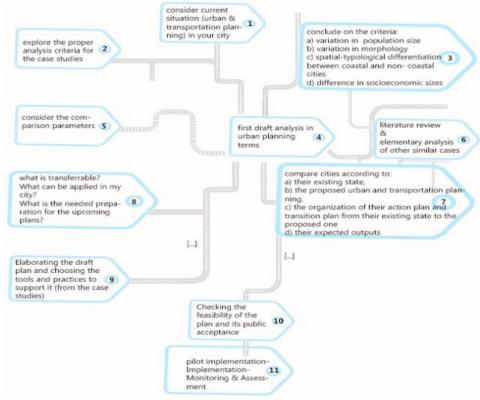


Figure1: Methodology graphic representation

The conclusions drawn contributed to the concise phrasing of the realization procedures of the implementation of

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