

Strategies and actions towards sustainability: encouraging good ITS practices in the SUMP vision

Vincenza Torrisi^{a*}, Chiara Garau^b, Giuseppe Inturri^b, Matteo Ignaccolo^a

^aDepartment of Civil Engineering and Architecture, University of Catania, Via S.Sofia 64, Catania, 95125, Italy

^bDepartment of Civil and Environmental Engineering and Architecture (DICAAR), University of Cagliari, 09129 Cagliari, Italy

^cDepartment of Electric, Electronic and Computer Engineering, University of Catania, Via S. Sofia 64, Catania, 95125, Italy

*corresponding author: vtorrisi@dica.unict.it (Vincenza Torrisi)

Abstract

In the last decade, many efforts in terms of strategies, initiatives and research have been made to enhance new forms of sustainable urban mobility, in order to reduce the externalities associated with the transport sector. To achieve this goal, the European Commission has emphasized the integrated planning at all mobility levels. Among the other instruments, it has been identified a key role in the writing of the Sustainable Urban Mobility Plan (SUMP), its management and also through Intelligent Transport Systems (ITS). Experiences in different countries, both in the US and in Europe, report that in several ITS applications the following results were obtained: reduction of travel time of around 20%, enhance the capacity of the network by 5-10%, decrease in the number of accidents by 10-15%, decrease congestion by 15-20%, reductions in pollutant emissions by 10-15% and reduction of energy consumption by 12%.

Based on this premise, the aim of this paper presents first results of a wider research aimed at investigating the methodological and practical approaches to boost the strategy of integration between transport systems and urban planning by using ITS technologies and infomobility systems. A review of literature, case-studies and research initiatives was used to derive key issues.

Keywords: Sustainable Mobility; Sustainable Urban Mobility Plan; Intelligent Transport Systems
