

#	<p>Yorgos Stephanedes PhD, PE</p>	
Title:	<p>Professor and Division Director Environmental and Transportation Engineering, Dept. of Civil Engineering, University of Patras, Rio, Patras, Greece</p>	
Presentation title:	<p>Intermodal hubs for eco-friendly transport logistics</p>	
<p>Smart ports and cities significantly increase their energy efficiency using balanced solutions through integration of energy-efficient infrastructure and sustainable mobility patterns. The aim is to save resources via smart energy efficiency technologies in buildings; and smart, connected electro-mobility and ICT in intermodal networks and parking areas. Sustainable Urban Mobility Plans (SUMP) integrate low-energy, high-safety traffic signalling infrastructure supported by vehicle-to-infrastructure grid systems.</p> <p>We focus on a safe & secure parking station design as intermodal link for e-bus and rail users and near-zero energy impact. Station design includes Renewable Energy Sources (RES), and battery banks to slow-charge e-vehicles. When not in use, battery banks and e-vehicles are in local distribution microgrid. Use is backed by ICT in registering, parking sensors and scanners controlling entrance. Sensors-tags are low-cost and energy autonomous. Modular station is 0/1 level with modules transferable between stations on demand. Energy efficiency measures offer grid stability and enhanced air quality and infomobility.</p> <p>At regional and international hubs, the new parking regime is based on intelligent physical and information infrastructure, advanced transport systems and operations, safe and secure data exchange for passengers and freight, track-and-trace of loads, and effective energy conservation and environmental systems. A number of TEN-T ports address these problems through common programmes, and develop flexible ITS platforms. These include Brindisi (IT); Igoumenitsa, Patras, Heraklion (EL); and Larnaca (CY).</p>		

CV:

Expert in Intelligent Transport, Transport Telematics and Green Energy Systems and their Development and Environmental Effects in Smart Cities and Communities.

For 20 years at University of Minnesota, USA, where he became full Professor, and Director of Graduate Studies. At Minnesota, he was funded by U.S. Government, including National Science Foundation (NSF), Federal Highway Administration (FHWA), Urban Mass Transportation Administration, Department of Energy, Office of Univ. Research of the U.S. Dept. of Transportation, Minnesota Dept. of Transportation and California Dept. of Transportation. Responsible for over 40 contracts by these organizations in Transport and Traffic Theory, Artificial intelligence in transportation, Transport and Energy Modelling, Traffic Control Theory and Applications, Economic Evaluation of Transport Infrastructure, Energy Policy and Impact Analysis.

While in the U.S., he developed a method for assessing the energy and environmental impacts of improved mobility on the economies of New England, Pennsylvania and Minnesota, with emphasis on energy independence, reduced pollution, and regional development.

In Minnesota he was instrumental in the creation of the Institute of Excellence in Intelligent Transportation Systems (ITS), one of 5 such Institutes in the U.S., and the ITS Center of Minnesota.

In EU he spearheaded the effort for identifying the impacts of telematics at DGXIII. He led the first EU Impact Analysis Workshop in Brussels that defined the framework for introducing ITS in the EU. Since 1997 he has directed numerous EU multinational research projects. He led the technical team in design and installation of the new Traffic Control System in Attica Region.

Prof. Stephanedes is author or co-author of 5 books and over 200 publications, reference chapters in the CRC Handbooks for Civil Engineering and for Engineering, member of Transportation Research Board of U.S. National Academy of Sciences, American Society of Civil Engineers, Intelligent Transportation Society of America, and Fellow of the Minnesota Supercomputer Institute among others. Evaluator and Auditor for NSF and the IDEAS Program of the U.S. FHWA, and for Transport Telematics in EU. On Editorial Board of U.S. and EU journals, and on Board of Directors of ITS Ellas.

He is Director of Division of Environmental Engineering & Transportation, and Director of the Graduate Programme of Intelligent Systems in Transport and Works Management at University of Patras.