

Digital Platform Integrating Complex Software Solutions for Decision Support System Dedicated to the Implementation of Sustainable Mobility Measures in Port Cities

Monday, November 2, 2020 4:00 PM (15 minutes)

The Port cities are complex urban agglomerations where the mobility issues have many specific aspects. The proposed presentation is summarizing the results obtained in the process of structuring a digital platform for Decision support in the implementation of Sustainable Mobility Measures in Port Cities. The platform has been conceived to integrate a dedicated database able to accommodate traffic data, air quality data, tools for processing data, including Big Data Tools, specific software for modeling and simulation traffic flows in the city and the port, for modeling dispersion of pollutants and for analyses of specific aspects related to mobility. Special algorithms have been conceived for the analysis and optimization of traffic flows taking into consideration different objective functions as access time for specific areas of the city or the port, fuel consumption, pollutant emissions, integration of Renewable Energy Sources and other similar.

The application is including dedicated tools for impact evaluation of based on social and behavioral analyses of the selected sample groups of citizens. Statistical analyses and AI tools are integrated for performing complex evaluations.

The entire platform has been developed as a web based service with extended and configurable functionalities. The results of the research and innovation activities have been obtained withing the PORTIS Project that has been funded under Horizon 2020 program of the EU. Within the project, there were developed complex activities for promoting sustainable mobility in 5 port cities from the EU as Antwerp, Aberdeen, Trieste, Constanta and Klaipeda. The port city of Ningbo from China has been associated to the project.

The digital platform for decision support has been developed and validated for the case of Constanta as a port city from the Black Sea.

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