CITISIM – Smart City 3D simulation and monitoring platform

The main goal of the project is to create a new generation platform for the smart city ecosystem. This platform will provide a powerful monitoring and control infrastructure for planners to make critical management decisions on tactical and strategic levels. For a better understanding, 3D visualisation techniques will be explored.

Expected technical outcomes

CitiSim will provide service developers with a set of services, standards, and tools for the development of applications for the smart city. The major expected technical outcomes in CitiSim are:

- A platform defined by its services, protocols, and tools for supporting advanced service development
- A 3D visualization tool for smart city monitoring and control
- A large scale simulation framework for supporting the strategic and tactical decision process on smart cities.

ITEA

CITISIM is a three years project (2016-2019) supported by ITEA.

ITEA is the EUREKA Cluster programme supporting innovative, industry-driven, pre-competitive R&D projects in the area of Software-intensive Systems & Services (SiSS). SiSS are a key driver of innovation in Europe's most competitive industries, such as automotive, communications, healthcare and aerospace.

Why CitiSim?

Thanks to new technological improvements, a considerable number of research projects and laboratory pilots have been deployed to study how to deal with problems such as traffic, pollution, mobility, energy consumption, etc. A complete digital ecosystem is growing within the smart city concept which has an estimated market worth of $1,134.84 billion by 2019. However, along with the variety of services, technologies and protocols being utilized in smart cities, service development and service deployment in the context of smart city monitoring and control is likely to be problematic for companies, city councils and citizens. The absence of a common platform with advanced services and tools for the smart city is hindering the effective development of the associated ecosystem. This type of ICT platform, also called the e-infrastructure, will be as important a regulator for the future development of cities as energy infrastructure and transport infrastructure have been in past decades.

Under this context, CitiSim´s project main goal is devoted to the design and implementation of a new generation platform for the smart city ecosystem. This platform will provide a powerful monitoring and control infrastructure to enable planners to make critical management decisions on tactical and strategic levels based on the knowledge provided by the specific platform developed.

Future deployments of CitiSim

The partners grouped by country will propose a use case of interest for a city, that can be used to guide the design and implementation of CitiSim and that will be deployed on the developed platform. Thus, three use cases will be proposed. Municipalities and local governors (e.g. Rivas-VaciaMadrid in Spain, Rotterdam in Netherlands) have already expressed their interest in CitiSim through letters of interest and their availability to hold demonstrators of the project.

PARTNERS

A multifaceted project like CITISIM needs a well-balanced consortium. In the CITISIM project we have partners from 8 companies and three different countries; Spain, Romania and Turkey.

The consortium covers all the technical competencies to implement the proposal and also contains partners that ensure that the targeted market impact will be generated. The consortium is well-balanced with respect to industry and knowledge institutes.

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