ITEA3

Project Profile

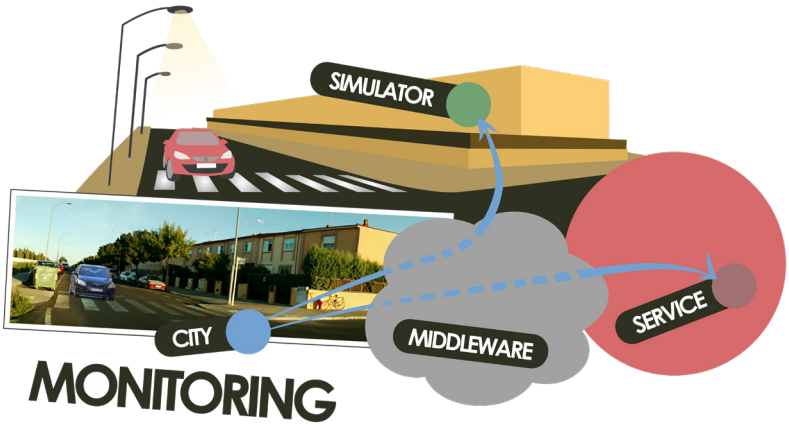
CitiSim

Fast design, development and testing of advanced smart city applications

The ITEA project CitiSim will focus on designing and implementing a new generation platform for the smart city ecosystem. This will enable planners to make critical management decisions on tactical and strategic levels and will provide a set of services, standards and tools for the development of applications for the smart city.

ADDRESSING THE CHALLENGE

With society evolving towards a new digital era in which citizens are becoming increasingly connected to their surroundings, cities will need to embrace and support this evolution of their citizens. This requires a common platform with advanced services and tools for the smart city. This type of ICT platform, or e-infrastructure, will be an important regulator for the future development of cities. CitiSim therefore aims to establish such a platform that is defined by its services, protocols and tools to support advanced smart service development, create a 3D visualisation tool for smart city monitoring and control, and develop a large-scale simulation framework for supporting the strategic and tactical decision process on smart cities.



City monitoring and simulation to provide value-added smart services

PROPOSED SOLUTIONS

The CitiSim platform will target data acquisition from multiple sources to create an urban dashboard whereby each area is described by a quality-of-life index. This will allow smart areas to be defined in terms of their benefits for local citizens and will give the authorities more knowledge to improve their decisions concerning the distribution of resources. The impact will be geared to two markets – emergencies and transport – and the results will be translated into greater competiveness and economic growth. The key technological innovations will centre on extending the classes of devices that are part of the smart city ecosystem, identifying environmental, societal and economic indicators, simulating and forecasting smart city crowd behaviour, using Local Dynamic Map (LDM) to provide smart panels, and advanced big data analytics for monitored city data from heterogeneous sources. An open-source smart city service development kit (SDK) will provide developers and end users with a sandbox for the safe implementation, simulation, visualisation and testing of customised applications on top of the CitiSim architecture.

PROJECTED RESULTS AND IMPACT

The results of the CitiSim project will provide consumers, marketers and business-owners with new tools, services and experiences and will give retailers opportunities to boost both on-line and in-store performance. Ultimately, the main impact of CitiSim will be evident in innovation and employment. The CitiSim e-infrastructure reinforces the smart city ecosystem of high-growth technological start-ups, enabling new synergies between the different start-ups. CitiSim will also enhance smart cities by connecting key relevant stakeholders such as technology entrepreneurs, companies, customers, citizens, developers, investors and local authorities.

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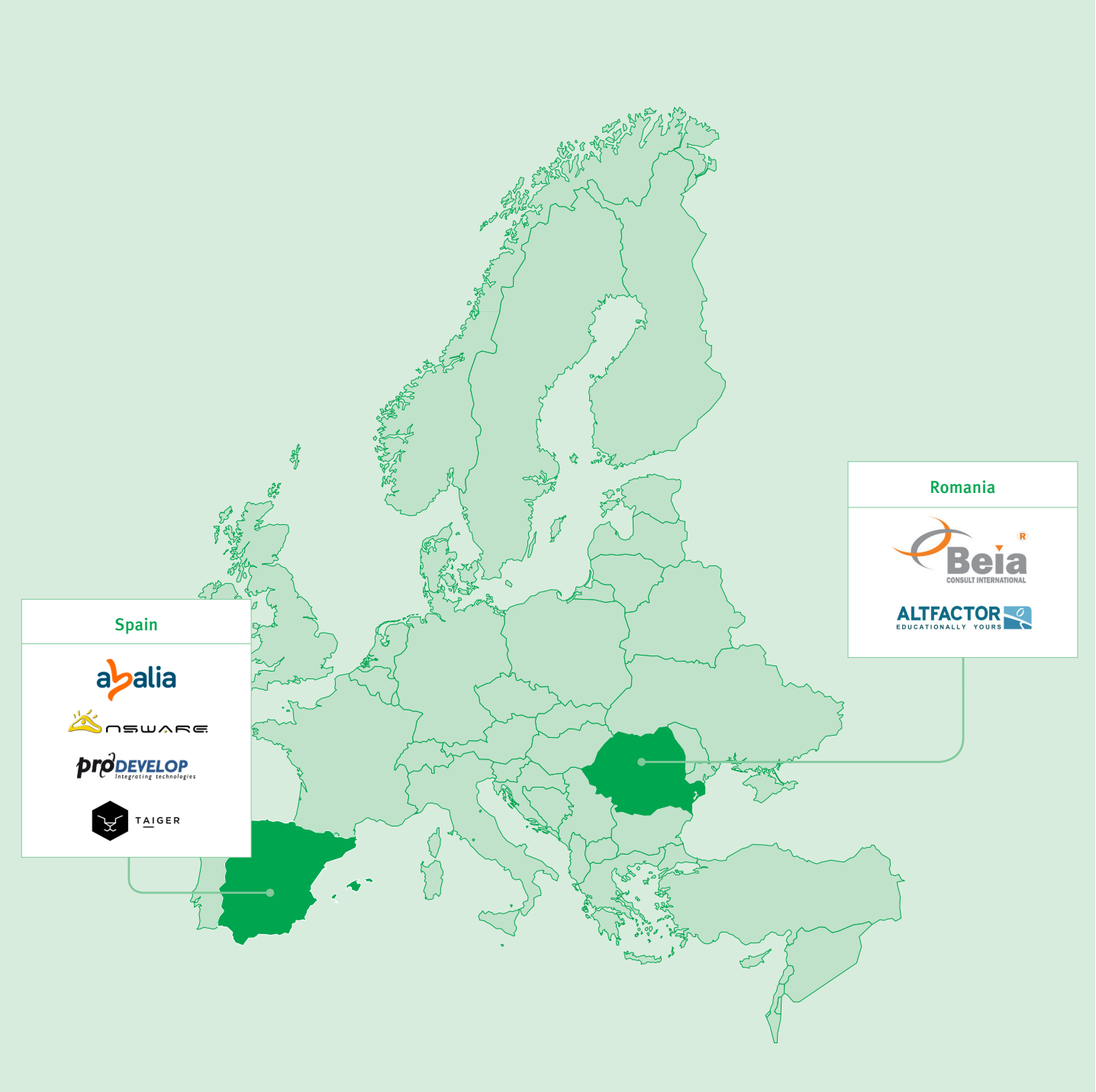
CitiSim



Project start
December 2016

Project end
December 2019

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ITEA is the EUREKA Cluster programme supporting innovative, industry-driven, pre-competitive R&D projects in the area of Software-intensive Systems & Services (SiSS). ITEA stimulates projects in an open community of large industry, SMEs, universities, research institutes and user organisations. As ITEA is a EUREKA Cluster, the community is founded in Europe based on the EUREKA principles and is open to participants worldwide.

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