



PROJECT DESCRIPTION

Innovative information and communication technology is a key element in the transformation to a Smart City. From a technological perspective, there has to be a specific degree of standardisation in the urban ICT networks. These standards have to be equally open to city administrations, companies, and citizens and allow innovative bottom-up-solutions.

The ESPRESSO project is a by Horizon 2020 founded project with 16 project partners from eight different European countries. The ESPRESSO consortium mainly includes partners from Smarts Cities, public administration, European standardisation organizations (ESOs), national standardisation bodies (NSBs), standard development organizations (SDOs), industries, and research facilities. The main target of the ESPRESSO project is to ensure the interoperability of Smart City solutions. This will help cities avoiding entry barriers or vendor lock-in through promoting common meta-data structures and interoperable (open) interfaces instead of proprietary ones.

To achieve this goal ESPRESSO will create a conceptual Smart City information framework based on open standards. For this framework it is necessary to develop a shared Smart City vocabulary and define reference architecture and City Information indicators. To identify the key requirements for further standard analysis activities ESPRESSO uses a case study based approach. The results will be used in a Strength-Weakness analysis of Standards in Smart Cities. This analysis will comprise existing as well as currently developed standards to improve the currently used standards and develop more reliable ones for the future.

Most of the well-known Smart Cities have concepts, which focus on optimization and efficiency, organized in a top-down manner and regarding the urban area simply as machine, which is controllable and adjustable through the social impacts of Smart Cities. The respective standardisation approaches have to be considered and will be part of the

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work for ESPRESSO, too. In order to ensure social acceptance of developed solutions, ESPRESSO sets up a stakeholder communication network that ensures an early dialogue between standards development organizations, technology providers, and technology consumers to avoid a mismatch between the design of technology solutions and cities' and citizens' needs.

Further ESPRESSO will develop publications for cities to aid identification and assess long term strategic considerations of adopting standards to their future Smart City developments. These publications will be offered on the project website and via social media to raise the awareness of smart city standards.