The ITEA 2 project FUSE-IT will address the need of sustainable, reliable, user-friendly, efficient, safe and secure Building Management Systems in the context of Smart Critical Sites, from a site management perspective and thereby solve the dilemma between efficiency and security in intelligent buildings.

**ADDRESSING THE CHALLENGE**

In the coming years, corporate and administrative buildings will be expected to meet strengthened regulations and company policies in matters of energy efficiency, facility management, information systems and security. In the context of a smart critical site, a site manager and a security manager may face incompatible objectives and constraints as well as dramatic overcosts if no substantial effort is done to optimize, federate and rationalize the legacy building management chains. One route to meeting these challenges is to stimulate cross-domain innovation between activities that are traditionally very segmented, whereby advanced data processing and analysis is the key capability.

The building management market transformation is driven by a number of key factors:

1. Rules and regulations at European and national levels challenge smart critical buildings with higher requirements in terms of energy efficiency and cyber-security.
2. Corporate policies and users pull the demand for enhanced connectivity and mobility in enterprise buildings.
3. Smart sensor technologies enable fine and efficient collection of huge amounts of raw data and advanced analytics enable their exploitation for optimised monitoring.
4. Collective awareness regarding cyber-physical threats targeting critical infrastructures is rising. These deep market forces are shaping the business potential of FUSE-IT.

**PROPOSED SOLUTIONS**

FUSE-IT aims to develop a Core Building Data Processing & Analysis module that will process data reported by secured share sensors, effectors and devices that are strongly interconnected through trusted federated energy and information networks. It will display the building and security status based on common key performance indicators. At user-level, a smart unified building management interface will enable daily monitoring and control of buildings while a full security management interface will enable supervision of both physical and logical security throughout the premises and the enterprise network. FUSE-IT will foster innovation by horizontal expertise sharing to create impact at sensor, network, management and security management level.

**PROJECTED RESULTS AND IMPACT**

The result of FUSE-IT will be a Smart Secured Building System, marketable as standalone components, as a fully integrated system or as a service. Trusted building and/or security management operations will be provided as a service to those infrastructures which do not want to invest in turnkey capabilities or the necessary expertise to operate them. Some noticeable impacts for the end-user are: huge equipment and maintenance cost reductions, substantial energy savings, enhanced connectivity and resilience to cyber-threats.
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.

**FUSE-IT**

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