**Press release**

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**Cyberattacks in hospitals: how to save lives?**

*Airbus CyberSecurity-led project FUSE-IT receives the ITEA Award of Excellence for Innovation*

Imagine, a malicious hacker is taking over the heating, ventilation and air conditioning system from a hospital, changing the temperature in such a way that diseases can easily spread in the hospital, where people actually are supposed to be healed. A bit of a scary scenario, but with all the equipment and facilities more and more connected to make the systems smart and save a lot of energy, this has become a serious threat that needs to be taken into account. Should we then be afraid to go to a hospital now? Luckily not, as also cybersecurity is becoming increasingly successful in addressing these issues. And one of these success stories can be found in the FUSE-IT project, which was led by Airbus Cybersecurity and ran from October 2014 until December 2017. This ITEA project gathered 20 strong partners from France, Belgium, Portugal and Turkey.

FUSE-IT addressed the need for sustainable, reliable, user-friendly, efficient, safe and secure Building Management Systems in the context of Smart Critical Sites. From a site management perspective, it solves the dilemma between efficiency and security in intelligent buildings. At the user level, a smart unified building management interface enables the daily monitoring and control of a building, while a full security management interface enables supervision of both physical and logical security throughout the premises. And at the end-user level, this can save both energy and lives!

To achieve this, the project developed a Smart Secured Building System, resulting from cross-domain innovation between energy and security activities that are traditionally much segmented The system that can be deployed as standalone components, as a fully integrated system or as a service. The technology achieved encompassed smart sensor networks, core building ontology and ontology-based anomaly detection, smart building efficiency management, smart building security management and the need for a unified view. The technology was implemented in a number of demonstrators and prototypes.

One of the demonstrators, that addressed the hospital hacker scenario, has been realised in the Portuguese Centro Hospitalar São João (CHSJ), which was actually one of the FUSE-IT partners. The old CHSJ building presented interoperability challenges (like the involvement of legacy equipment from diverse providers) along with severe constraints and criticality of equipment and zones coupled with the need to be able to integrate the most advanced clinical technologies.

Including customers, like a hospital, from the beginning in an R&D project is not so common yet, but the approach has proven to be highly successful. This ensure that real needs are being solved and a market exists, and is even waiting for the developed solutions, accelerating the exploitation of the results.

Thanks to the FUSE-IT consortium, hospitals can now continue to save energy by using smart grids and IoT, for example, and at the same time be protected against cyberattacks and thereby protect their patients. ITEA Vice-chairman Philippe Letellier explains: *“With today's systems becoming more and more complex, in order to solve this complexity everyone is focusing on specific silos (Energy management, Building management system, Security) to reach a level of excellence. It is always at the interface of the silos that you discover some interoperability and security 'leaks'. We became convinced at the proposal level by FUSE-IT, because they choose the challenge to cross these silos to solve some of these leaks. We were enthusiastic at the end of the project by the way they delivered a very innovative solution which solves many of their challenges. Without question, they deserve the ITEA Award of Excellence for ‘Innovation’.*

*Adrien Philippe Bécue from Airbus CyberSecurity receives the ITEA Award of Excellence for the FUSE-IT project*

“*Airbus CyberSecurity strives to be at the leading edge of innovation in fields which combine safety and security. Award-winning projects such as FUSE-IT show that we are moving along in the right direction*,” said Steve Rymell, Head of Technology at Airbus CyberSecurity.

**More information:**<https://itea3.org/project/fuse-it.html>

**About ITEA**

ITEA is a transnational and industry-driven R&D&I programme in the domain of software innovation. ITEA is a Cluster programme of EUREKA, an intergovernmental network for R&D&I cooperation, involving over 40 countries globally. ITEA enables an international and knowledgeable community to collaborate in funded projects that turn innovative ideas into new businesses, jobs, economic growth and benefits for society. ITEA is open to large industry, small and medium-sized enterprises (SMEs), start-ups, academia and customer organisations and its bottom-up project creation ensures that the project ideas are industry-driven and based on actal customer needs. The ITEA programme is publicly funded on a national level; each ITEA project partner can apply for funding from their own national Public Authority.

**Press contact**:
Linda van den Borne
linda.van.den.borne@itea3.org
+31 88 00 36 165