

## Project SMARTIE: Security for Smart Cities

### *European Commission acknowledges successful start of the project*

**Frankfurt (Oder), November 2013:** The project "SMARTIE: Secure and sMARTer ciTIEs data management" funded under The Seventh Framework Programme (2007-2013), Objective "ICT-2013.1.4: A reliable, smart and secure Internet of Things for Smart Cities" has started recently. This EUR 5 million project is being carried out by a consortium, led by IHP – Innovations for High Performance Microelectronics/Leibniz-Institut für innovative Mikroelektronik in Frankfurt (Oder), Germany. EUR 3.2 million is funded by the European Commission.

There is a strong trend among cities to become smarter in order to solve the upcoming challenges, e.g. aging society, need for energy savings or maintaining the existing infrastructure. Smart technologies, the availability of fine-grain data of the city and its residents, as well as the possibility to remotely control the city's infrastructure will have a great social benefit if used correctly, for instance with respect to the traffic congestion avoidance.

As the people and objects become more and more interconnected, we have to face new challenges and opportunities. Opportunities arise from greater real-time data gathering and information sharing within and between providers and organisations across the cities. Processing the data obtained by large amounts of Internet of Things (IoT) sources being available in a Smart City as well as generating information with appropriate quality is of increasing importance. The Smart City solutions, that will manage a huge amount and variety of various data/information sources (traffic, weather, home automation, health care, energy, business, administration), need to support the security and privacy mechanisms in order to protect the data infrastructure against potential cyber attacks.

The vision of SMARTIE is to create a distributed framework for IoT-based applications sharing large volumes of heterogeneous information. This framework is envisioned to enable end-to-end security and trust in information delivery for decision-making purposes following data owner's privacy requirements. New challenges identified for privacy, trust and reliability are:

- Provide trust and quality-of-information in shared information models to enable re-use across many applications.
- Provide secure exchange of data between IoT devices and consumers of their information.
- Provide protection mechanisms for vulnerable devices.

SMARTIE will address these challenges within the context of Smart Cities. A smart city controller handling data for the city must show that the information collected from different devices are communicated and stored in a secure way. Privacy protection and access control to the data and objects is necessary to convince data owners to share information and to protect the city infrastructure.

SMARTIE envisions a data-centric paradigm with the “information management and services” plane as a unifying umbrella, which will operate above heterogeneous network devices and data sources and will provide advanced secure information services.

The feasibility and utility of SMARTIE will be tested in real environments with real users of the city infrastructure. The two application areas Transport and Energy will be considered; both are key infrastructures of cities. The tests will involve the cities Frankfurt (Oder) (Germany), Belgrade (Serbia) and Murcia (Spain).

The project consortium forms a sound base for the realization of the project’s ambitious objectives. Further members of the consortium are NEC Europe Ltd (United Kingdom), Portugal Telecom Inovacao SA (Portugal), Društvo za Konsalting, Razvoj i Implementaciju Informacionih i Komunikacionih Tehnologija Dunavnet DOO (Serbia), Green Way Systems GmbH (Germany), Universidad de Murcia (Spain), Instituto de Fomento de la Region Murcia (Spain).

**Contact:**

Prof. Dr. Peter Langendörfer  
IHP - Innovations for High Performance Microelectronics/Leibniz-Institut für innovative Mikroelektronik  
Im Technologiepark 25  
15236 Frankfurt (Oder)  
Tel: +49 335 5625 350  
Email: [langendoerfer@ihp-microelectronics.com](mailto:langendoerfer@ihp-microelectronics.com)  
[www.ihp-microelectronics.com](http://www.ihp-microelectronics.com)