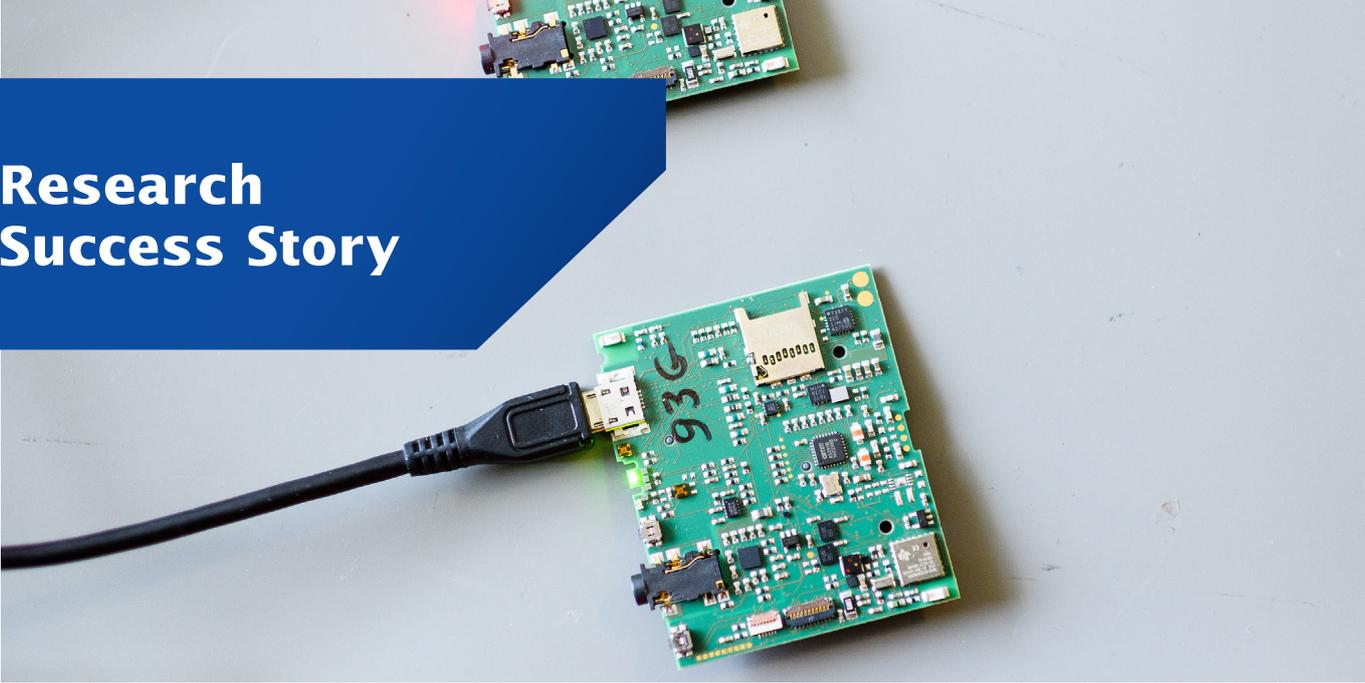


December 2016



## Research Success Story

### T H E   E X P E R T S   M A K I N G   O U R I N F R A S T R U C T U R E   S A F E

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*Security has not kept pace with the internet. Hacking and malware, which are headaches for individuals and companies, can be devastating for critical public infrastructure. A new Horizon 2020 project, “CIPSEC” (Enhancing Critical Infrastructure Protection with Innovative Security Framework), aims to seal off this vulnerability with a unified approach. Swiss security company Empelor GmbH brings its expertise in access security to the 13-member project consortium.*

Before the internet era, critical infrastructure (CI) sites like power plants and airports lay secure behind chain-link fences. Today, the information and operation technology (IT and OT) on which CI depend are connected to the internet. This connectedness has brought efficiency, flexibility and economic advantages but also a major risk: Each CI site is now as vulnerable as the weakest link in the system. With attacks becoming ever more sophisticated, piecemeal security solutions are no longer enough.

#### **Flexible and united**

To solve this problem, the CIPSEC project aims to create an overall security ecosystem for CI sites and networks across Europe. “The aim is to create a common framework that every country can use in a similar way,” explains Dr Paschalis Papagrigoriou, Executive

Director of Empelor, an IT security company based in the Swiss canton of Glarus. The consortium will work on 3 different pilot projects to develop solutions to secure transportation, health and environmental monitoring, and will test them on real infrastructure.

#### *“We want to bring Secocard to all markets”*

The companies participating in the consortium will provide such services as vulnerability testing, technical training courses, advanced contingency plans, forensic analysis, preliminary certification and protection against cascading effects.

#### **Securing access**

Empelor has been given the job of authorising access to the new system through its patented “Secocard” technology. A smartcard device that also functions as a secure

messaging system, Secocard will both secure access and allow individual CI sites across Europe to communicate securely. CIPSEC is one of 2 EU projects in which Empelor is currently involved, the second being a project to secure health data. Papagrigoriou says that participation in EU-wide consortia is a good fit with his company’s strategy. “We want to bring Secocard to all markets,” he says. Founded in Switzerland and operating its development centres in Crete and Germany, Empelor has a new office in the Swiss canton of Glarus and is continually expanding its presence. The location, Papagrigoriou concedes, may seem unlikely for a high-tech company, but he expects this to change: “Glarus is best known for its scenery and mountain cheese but we believe it can become a hub for IT security companies.”

## About CIPSEC



*“The aim is to create a common security framework that every country can use in a similar way”*

**Dr Paschalis Papagrorgiou**  
Empelor GmbH

### CONTENT SUMMARY

Under Horizon 2020, a new 13-member consortium has launched the CIPSEC project to develop a unified security framework for Europe's critical infrastructure sites. The project's goal is to integrate security systems now in use into a common framework, with continuous monitoring for maximum security. CIPSEC's 3 pilot projects will examine the security of transportation, healthcare and environmental monitoring. CIPSEC will also look at the EU's overall security framework.

### FACTS AND FIGURES

**Project Name**  
CIPSEC - Enhancing Critical Infrastructure Protection with Innovative Security Framework

**Research Area**  
Digital Security: Cybersecurity, Privacy and Trust

**Organisations**  
Atos Spain SA (Coordinator) and 12 partners

**Start Date – End Date**  
01.05.2016 – 30.04.2019

**Duration**  
36 months

**Project Cost**  
€7.02 million

**Project Funding**  
€5.72 million

**Programme**  
Horizon 2020 Societal Challenges: Secure Societies

**More Information**  
[www.cipsec.eu](http://www.cipsec.eu)

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