MINALOGIC

Smart Electricity: Energy Efficiency

Background

The European Union has set the goal of achieving 20% energy savings by 2020. This has resulted in the advent of new regulations and measures designed to promote greater public awareness of the issue.

One of the keys to the intelligent management of electricity is a better understanding of how it is distributed and used. Such knowledge is built on information gathered at different points on the power grid.

In electrical distribution architectures, which vary according to the application (with factors such as industrial, office, or residential buildings, or medium- or low-voltage power coming into play), the electrical board is where power protection, control, and measurement systems are located.

The Smart Electricity project examines the future of the electrical board and associated components.

Partners

Corporate

Schneider Electric - France Télécom R&D - GEG - Sogeti Hightech - Teamlog - Silicomp

SME

Mecagis & IMPHY Alloys - Scalagent - SEPC

Research laboratories

CEA - INP G - LSR

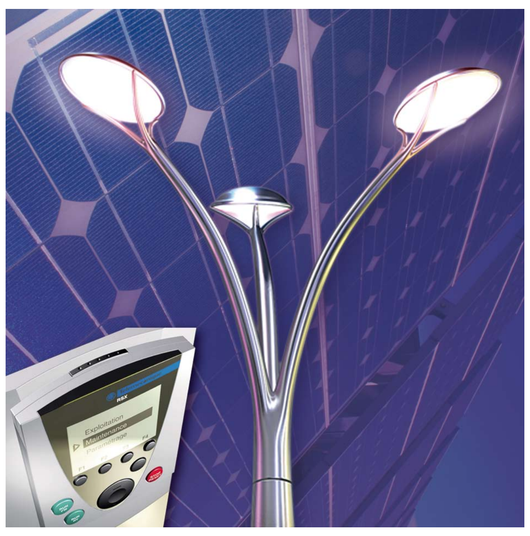
Key figures

Budget: €20.5 million

Duration: 4 years

Human resources allocated: 127 people per year

Innovation

The goal of the Smart Electricity project is to spur convergence between the electrical, automation, and communication industries via the development of an "intelligent electrical board" that can communicate, interface with its environment, and change rapidly to keep pace with information technologies by harnessing the power of miniaturized electronics and deeply-embedded software.

These technological and functional innovations (such as multi-physical micro-sensors, energy storage-recovery, and wireless communication) targeting the electrical board and associated ambiance components will enhance the protection and command functions of electrical distribution networks.