

Smart City

Open Platform for Smarter Cities



CHALLENGES	SOLUTIONS	RESULTS
<p>Lack of Interoperability & Openness</p> <ul style="list-style-type: none"> – Today’s city data platforms are fragmented among various divisions of city administration (e.g., mobility, energy, waste, environment, tourism, economy, etc.). – Applications and tools using those data platforms are isolated and do not interoperate. – There is an immediate need of tools for rapid integration of dynamic data sources and cross-domain application development. – An open innovation approach is necessary for new application ideas to appear with involvement of citizens. The innovators need open APIs, platforms and tools in order to build their innovative applications and services on top of those platforms. 	<p>Modular & Service Oriented Approach</p> <p>CEA LETI has developed an OSGi-based open platform for smart cities: sensiNact.</p> <ul style="list-style-type: none"> – Plug & Play: Device as a Service Approach. Flexibility of adding/removing/updating support for new devices with a minimum impact on the running platform. – Modular: Modular development and deployment for enhanced system maintenance and evolution. – Dependable: Formal data and service model to facilitate reliable IoT applications development. – Scalable: Three layers of architecture (device/gateway/cloud) allowing distribution of data processing at different levels. – Easy & Quick: Comprehensive data model and APIs helping to rapidly build IoT applications. 	<p>Global Smart City Network Sharing Best-practices</p> <p>sensiNact has been developed and deployed within various smart city projects. To name a few:</p> <ul style="list-style-type: none"> – Smart industrial zone monitoring in Grenoble to improve the quality of experience of employees in terms of mobility, restaurant services, after-work events, etc. – Smart ski resort in Chamrousse, to track skiing performance of skiers equipped with sensors; to assist station owners for more efficient resort management. – Smart living and well-being in Isère to enable more autonomy at home for the elderly. – Environmental monitoring in Genova and Fujisawa with fix and mobile sensors. – Context-aware smart route recommendations for tourists in Santander city. – Collaborations resulted in establishment of a global alliance on smart cities: Urban Technology Alliance.

