Vitoria-Gasteiz: Urban Management System

Overview

Urban management systems, also known as city platforms, are complex ICT tools designed to help develop and implement smart strategies of cities. The concept behind the platform is providing the city a place where all the information generated in the city can be stored, processed and retrieved for further purposes. This holistic approach should allow integration with other existing ICT systems and the development of new ones. An open data strategy for the city will provide the means to generate additional added value services for the citizens though this platform.

For Vitoria-Gasteiz, the platform aims to supply the city with a solution where all existing ICT systems will be integrated, and provide a solution for the systematic migration of sectorial legacy systems into the new city platform.

Outcome / Successful Implementation

The City of Vitoria-Gasteiz is obtaining the necessary information and communication infrastructure to achieve comparative knowledge of the interventions executed in the project via two different methods:

- Low level sensors measuring temperature, relative humidity and CO_2 are installed in dwellings to determine the comfort conditions of its tenants along with energy consumption measuring devices (on a real time 24x7 basis).The necessary wireless (4G) routers and wired networks are configured and deployed to assure that data are seamlessly redirected and stored in the platform databases. To monitor the operation conditions of the electric buses (BEI), on-board acquisition devices are installed to gather and transmit relevant information on routes, usage, recharge operations, etc. A similar approach is provided for the monitoring of energy consumption in public municipal buildings, were the information is acquired by tapping into utility meters.
- A City Platform was implemented to manage the information obtained from the interventions. Software services are deployed to store, interoperate, normalise, analyse, and display the data acquired from the city. These added value services help manage the city solutions and make decisions. The platform offers the backbone structure for data storage, data analysis, visualisation and display, user and roles definition, security and access services (both operator and other systems), GDPR compliance, and all the necessary functionality to build added value services for additional city elements that will eventually be implemented and integrated into the platform.

The first set of implemented value-added services targets several stakeholders: municipality and city officials, ESCOs and energy services, transport services, and citizens. These services offer information on energy consumption and comfort conditions in the dwellings, with anonymised integration of data, monitoring infrastructure management and support tools, energy demand and consumption forecast, public building energy consumption, KPI and global indicator management services, and an on-line city information and news TV channel.

Citizen Engagement

Citizens will be provided with interface software applications to interact with the platform in a transparent way. This means that the citizens will not have to understand the complex technology behind the solutions, the architecture layers and the ICT specifics, but will rather be presented with friendly interfaces that meet their needs. Dedicated websites and apps will be developed for smartphones and tablets based on the specific solutions.

Benefits

- Real-time information on comfort conditions in the dwellings
- Impact calculation of the energy retrofitting of the houses based on real data
- Direct citizen engagement with local news of interest
- Forecast of energy demand based on customer comfort preferences
- High level visualisation of indicators and KPIs online and in real time

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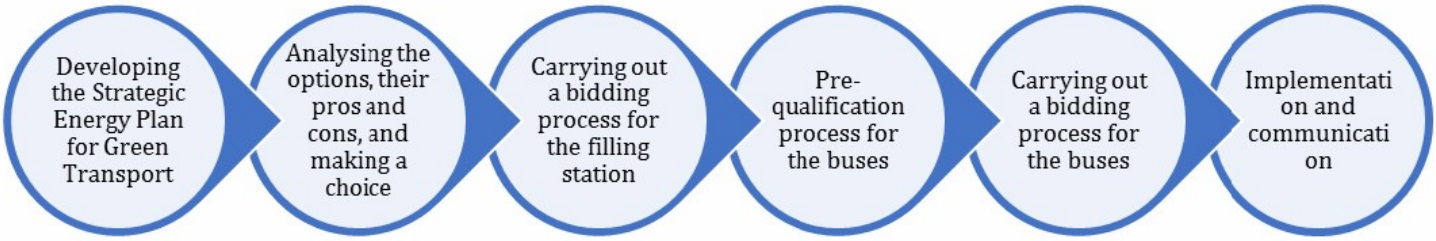
Stakeholders

Owner(s)	Project partners involved in the development
Service/Technology Provider	City/Third parties
Users	Citizens
Investors	City Administration

Process



Replication Potential

There is a growing number of cities around the world with an interest in deploying smart services that help to optimize existing services and deploy new ones. These cities define their smart strategies according to their own urban development plans and their financial situation, some entering public-private agreements to secure the necessary investments and to speed up service deployment and uptake.

For each city, defining the adequate strategy for deploying their own platform is of key importance as this core system will be the basis on which all smart services will be built, offering added value to the citizens and helping the municipality to manage the city and to make strategic decisions for the future.

The city administration must be involved in such decisions as part of the long-term development of the city's smart strategy, and the municipality departments involved in providing the services must take initiative and be empowered to develop the plans.

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More information:

https://smartencity.eu/about/solutions/vitoria-gasteiz-urban-management-system/

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