Tartu: Smart City Portal

Overview

The Smart City Portal is a digital ecosystem for city data and services by integrating various data inputs and sensor systems together into one city ICT platform, where anyone could build their own value adding services on top of the city provided platform.
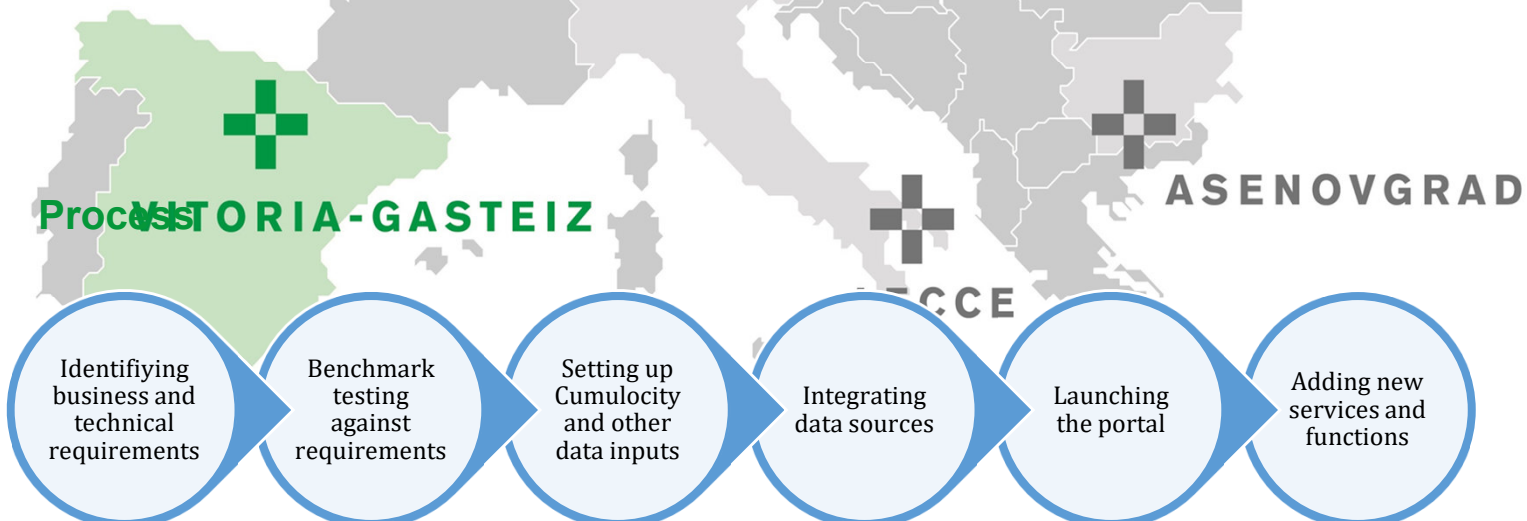
Tartu has a long tradition of using ICT solutions to improve its citizens' quality of life. This city-wide platform

- enhances automation and thus also increase optimization;
- gathers all city-wide data relevant into one innovative portal;
- enables to freely monitor all the data both on a city, building and apartment level;
- enables to monitor the functioning of systems and prevent and detect errors;
- increasse residents' awareness of their energy consumption and thus allow the residents to make better-informed consumption decisions;
- increase both the residents' and Tartu citizens' awareness of the potential of ICT solutions and how they can benefit their everyday life (i.e. the smart home systems that were installed in the pilot area smartovkas).

The CIOP was designed with multiple separate modules:

1) IoT platform Cumulocity for easy integration of any sensor systems,
2) Data Access Layer (DAL) for Authentication and Consent Management. This layer also introduces an API for Third Party Access to the data,
3) Data Mapping Tool as a technical service for describing and allocating data for end-users,
4) City Portal for end-user access to City and personal data.

Without high-quality data, it is very difficult to make sustainable decisions in city management. It is becoming increasingly clear that decision-making processes must be data-driven. To ensure this, it was necessary to set up appropriate ICT infrastructure in cities, which enables data to be collected, processed, presented, and made available to all parties.

Process:

| Identifying business and technical requirements | Benchmark testing against requirements | Setting up Cumulocity and other data inputs | Integrating data sources | Launching the portal | Adding new services and functions |

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Citizen Engagement

The portal is a tool for citizens as well to monitor the energy consumption of their dwellings and public buildings. The portal will help citizens to get a quick overview of what is happening in the city, e.g. to monitor the real-time movement of public transport or the occurrence of traffic jams.

In the future, the platform will provide free open access data to allow for third parties to use it in building new services and products.

As part of additional developments, in the future, the portal can also be used to connect directly with the citizens in conducting surveys and polls, etc.

Benefits

- enhanced automation and thus increased optimization;
- all city-wide data is available in one innovative platform;
- enable to freely monitor all the data both on a city, building and apartment level;
- enable to monitor the functioning of systems and prevent and detect errors;
- increased residents' awareness of their energy consumption and thus the residents can make better-informed consumption decisions;
- increased awareness of the potential of ICT solutions and how they can benefit their everyday life (i.e. the smart home systems that were installed in the pilot area smartovkas).

Stakeholders

Owner(s)	Tartu City
Service/Technology Provider	Telia
Users	City officials, citizens, housing associations
Investors	H2020, Telia, Tartu city

Investment/Finance: Ca 400 000 €

Replication Potential

The same platform has been launched in two Lighthouse Cities, Tartu and Sonderborg, proving its replicability potential. Telia as a service provider has built similar solutions before for both private companies and public sector actors, which makes the solution flexible and adaptable for different parties.

Contact

Jaanus Tamm
Tartu city government
jaanus.tamm@tartu.ee