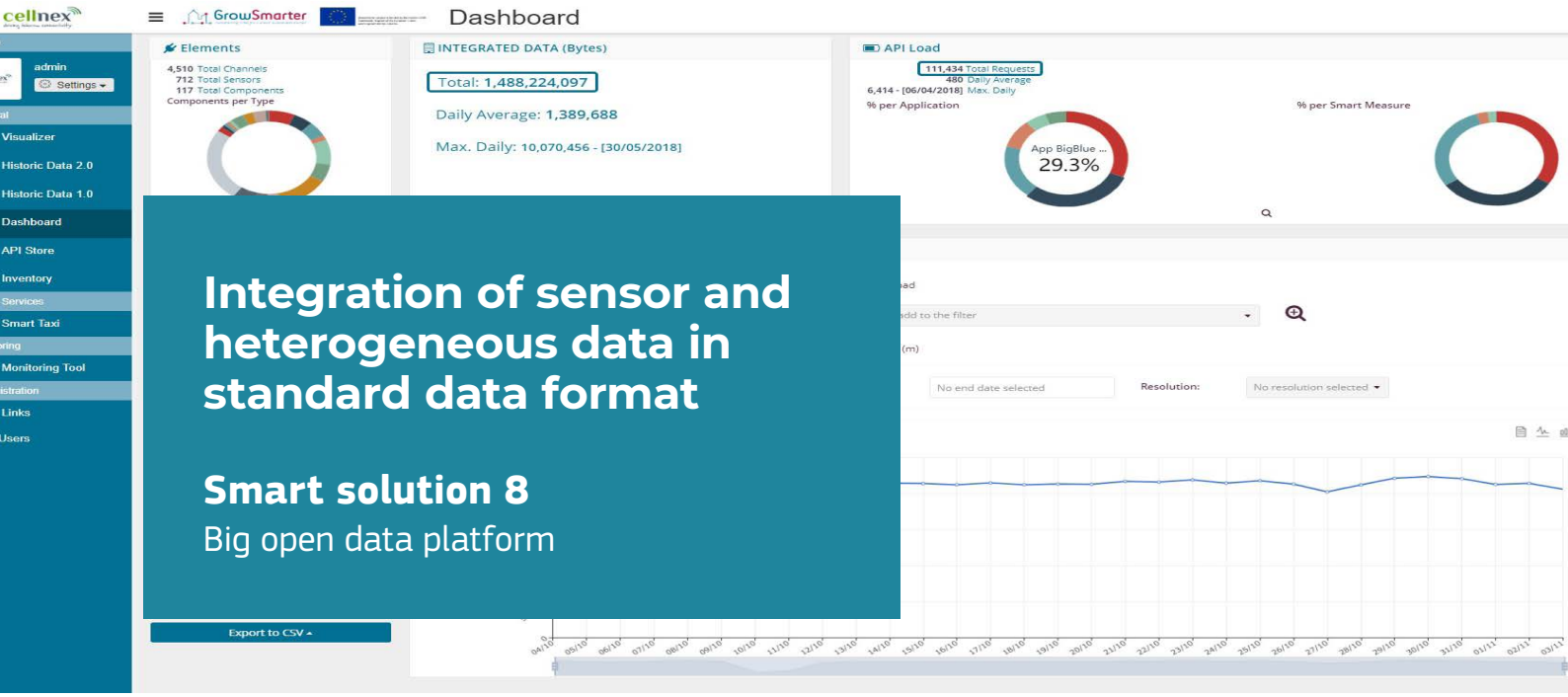


Integration of sensor and heterogeneous data in standard data format

Smart solution 8

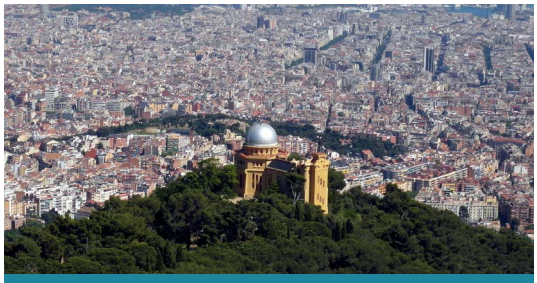
Big open data platform

Measured impacts

875
integrated sensors

4.8 GB
integrated data

DATA INTEROPERABILITY
through a marketplace of integrated data services



Barcelona

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What is it?

The measure creates an horizontal core platform that aggregates data from all measures deployed in Barcelona. Main capabilities are focused both, on urban data gathering, and the distribution of data services to the northbound applications.

Based on a set of Application Programming Interfaces (APIs), the platform also offers a marketplace of data services that promotes co-creation of added value applications and urban services to manage and monitor the smart city, boosting new business models.

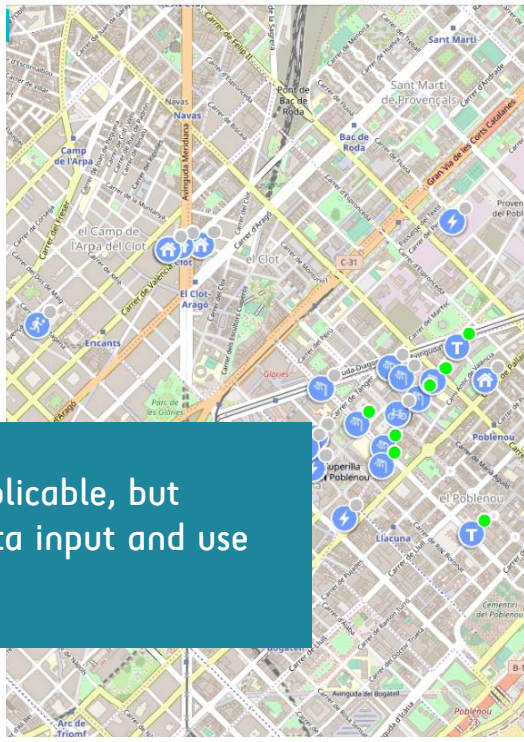
What did GrowSmarter do?

In Barcelona, the horizontally organized platform manages and shares data from the implemented GrowSmarter measures. The platform is like a middleware component of the Big Consolidated Data Platform that collects and standardizes different types of data with the aim

of offering them in a common marketplace where business applications like Business Intelligence algorithms, Monitoring Applications, City Dashboards, Semantic Layer, etc, can make use of the GrowSmarter data (see, for example, factsheets 29 and 31).

The platform includes data from a wide range of measures in GrowSmarter, including freight information *(see factsheet 33)*, smart taxis (*factsheet 44)*, data from Smart Towers *(factsheet 20)* and all the retrofitting done in Barcelona *(factsheets 1-4)*.

The solution allows processing and sharing of large amounts of heterogeneous urban data in real-time to support decision-making applications and therefore grants interoperability and a standardised management. In total, the platform is processing about 875.000 observation updates per month.



Easily replicable, but needs data input and use cases

Lessons learnt

The challenge is filling the platform with enough data because not all measures provide enough information and data. The horizontal concept allows the platform to work across vertical services. Additionally, the modular concept allows the platform to provide new functionalities or to process new types of data sets, without disturbing the previous features.

Upscaling & replication potential

This solution of a horizontal platform based on standards and open source components is an enabling measure and is easily scalable and replicable to any other city because it is independent of specific data-sets and application domains.

How did the measure work?

Technical feasibility

The horizontal concept of the platform allows to work across several vertical services. Its modular concept allows adapting its capabilities to any environment.

Economic feasibility

The solution has been devised as a Platform as a Service (PaaS), that proposes a modular cost system to be flexible with different needs and requirements.

Replication potential

This solution is easily scalable and replicable for any city.

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