

Citadel ON THE MOVE

Citadel on the Move is a European Commission-funded project that is empowering citizens across Europe to use open data to create “smart”, innovative mobile applications that can be used in the region to improve lives. It is even starting to attract cities outside Europe, that are interested in this platform to share open data.

The Challenge

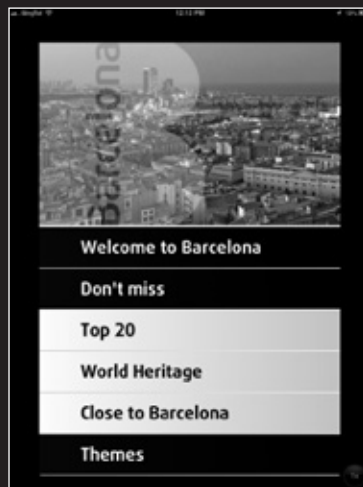
The current era of austerity is placing increasing pressure on governments everywhere to do more with less, particularly at the local level.

The near ubiquity of “smart” devices – such as smartphones and tablets – presents a potential key to address this challenge. These mobile devices provide European citizens on the move with access to data over the Internet and the resulting potential to access any service, anywhere.

The larger cities are often strong enough to have their own mobile applications (also known as apps) built. But smaller cities and villages don’t have the resources to follow. For the citizens, this often means they have to download the same kind of applications for every city they want to visit. And the market for application developers is limited to the cities they can sell them to.



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There is a need for common standards or approaches to make it easier to tap open data from various sources and transform it into a publicly useable format.

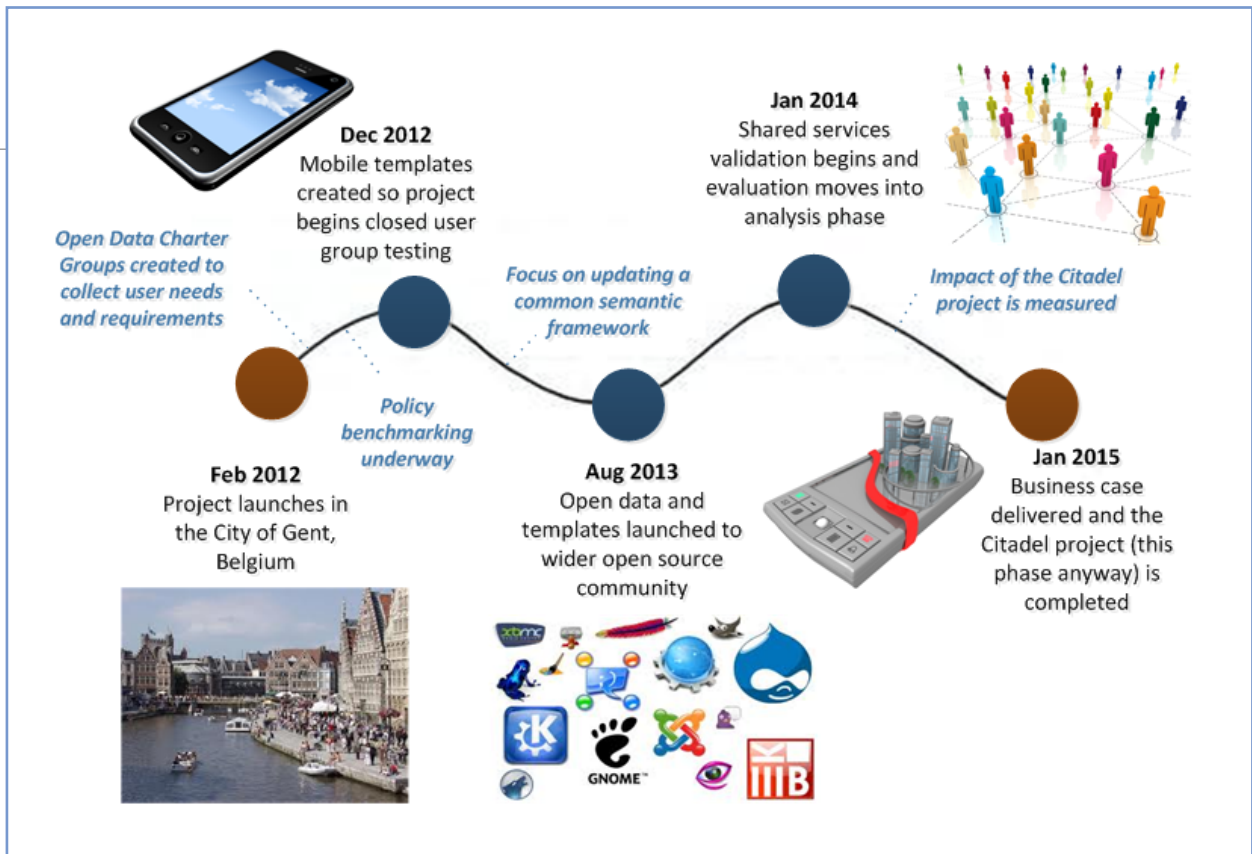
“Open data” is information that is freely available for anyone to use as they wish, for private or commercial purposes, without copyrights, licenses, patents or other restrictions. In the context of government, this refers to data

that does not compromise privacy or security, especially machine-readable datasets like traffic or crime statistics. Open data enables the development of useful new services, like smartphone applications, that can improve our quality of life, sustainability and competitiveness.

Even if local governments have heard about open data, many – particularly at the smaller, local level – do not know how to begin in terms of making the information it holds available to citizens.

Citadel on the Move aims to make it easier for cities, application developers and citizens to make use of the potential of mobile apps based on open data.

- 01 GuidePal, a free tourist guide to Stockholm.
- 02 Official Barcelona city tourism smartphone app.
- 03 This commercial firm has several mobile apps for London.



The Solution

Citadel on the Move aims to address these challenges by making it possible for local governments across Europe, regardless of their size or resources, to combine access to open data and mobile technologies to create “smart”, innovative citizen-generated services that can be used across Europe.

Citadel on the Move is based on three key principles: citizens as developers; common approaches to standards; and open data for universal participation.

Citadel on the Move seeks to address this challenge by helping local governments to provide citizens with new tools to become developers and create public value

themselves. Citadel will enable mobile applications to be potentially designed by the same people who will use them, rather than devised in far-away research laboratories.

Standards help to ensure interoperability, making sure goods and services can flow effectively between companies or across national borders.

Rather than approach open data standards used by governments in terms of a narrowly predefined way of doing something, it is more useful to think of standards in terms of defining a “path” towards a specific objective – in this case the seamless interoperability between datasets.

Citadel on the Move does not advocate conformity to any single standard for publishing open data because, should standards then change, this would place undue burden on cities. In short, we offer a step-by-step approach to make cities “standards aware” and ensure that they take the most appropriate and cost-effective actions in publishing their open data.

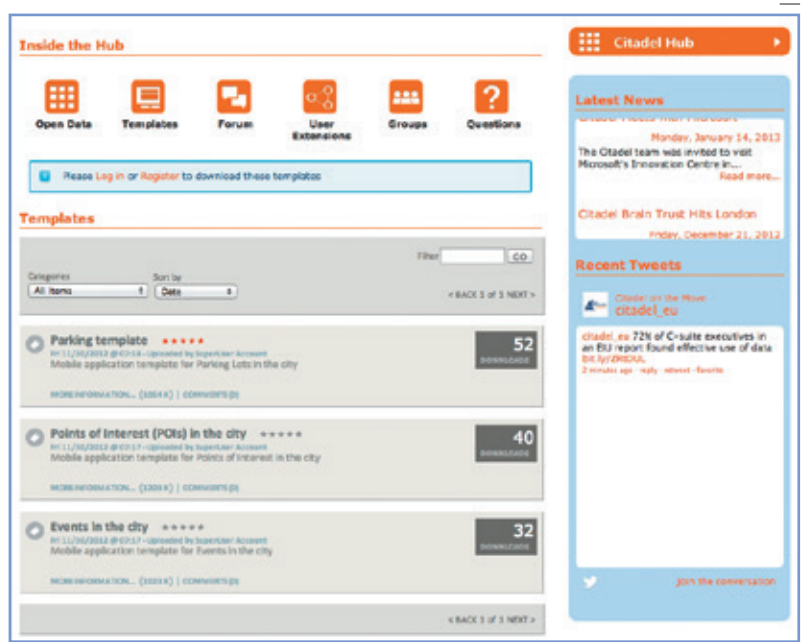
Under this scenario, Citadel understands standards as common approaches to the publication of data sets that enable citizens to use the same methods to access data from different sources, secure in the knowledge that the data will interact with each other. The current online open data ecosystem is a fragmented variety of tools, interfaces and toolkits, mostly designed for use in silos, i.e., with a specific data set or application. We overcome this challenge through creating online tools and services for publishing and using open public data which are not specific to either a given

dataset or a given application. This approach is considered a “Commons”: a collection of re-usable items that “belong” to the community and can be “used” by any section of the community, i.e., facilitating universal participation.

Our Open Data Commons (ODC) approach is intended to benefit both local government data providers and citizen application developers by providing a shared resource centre for linking “citizens-developers” to available open datasets and facilitating the collection and take-up of APIs (Application Programming Interfaces) and SDKs (Software Development Kits) to build mobile application templates and apps.

- 01 Key dates for the Citadel on the Move project.
- 02 Citadel on the Move screenshot.

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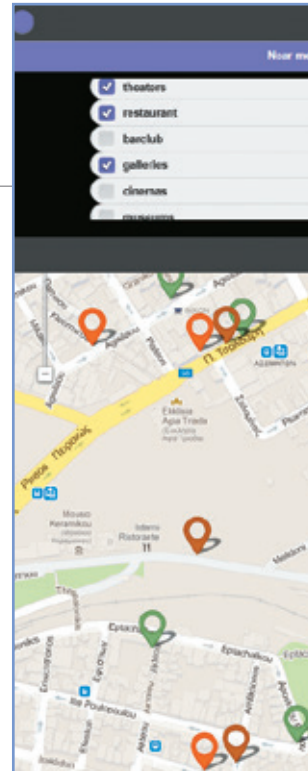


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The Outcome

In the project a number of “templates” have been built that can be used as building blocks for mobile apps. A template is a working mobile web application that is optimised for mobile devices but also accessible by a desktop web browser. The mobile application templates developed will have to be able to consume data coming from diverse sources and produced in various formats. Citadel has so far created templates for developers to create apps to help users locate empty parking lots, be alerted to ongoing or upcoming events, or to search for “points of interest” (POI) in a city. For instance, a “near me” switch enables a citizen to locate a specific POI using geo-referenced data.

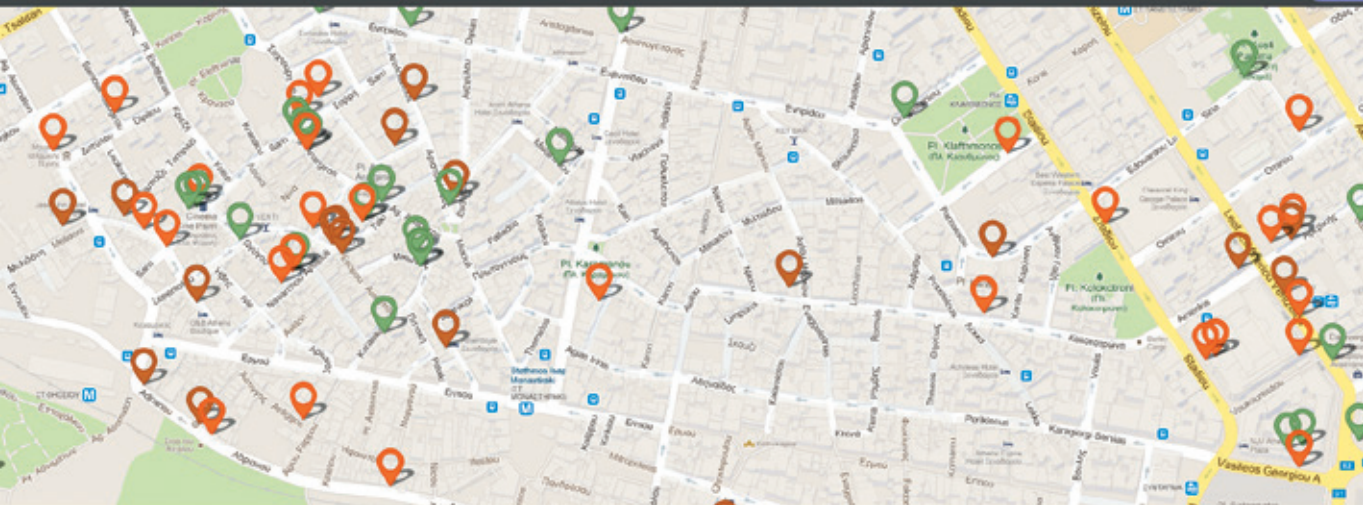
Currently, four participating cities (Manchester in the United Kingdom, Issy-les-Moulineaux



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in France, Athens in Greece and Ghent in Belgium) are using these templates to build applications that can be used in the other cities. It is now fairly straightforward to make a custom app that taps open data. But each of the pilot cities has specific needs so the different templates serve as building blocks for more complex applications.

For instance, Ghent aims to reduce traffic in the city centre. To solve this problem, a citizen developer in Ghent could combine the events template with the parking template to provide an overview of all available parking lots in the vicinity of an event. This would greatly reduce the time needed to find an appropriate parking spot, which in turn would reduce carbon emissions in the city centre.



The project has also been opened to new cities that can make use of the templates or the applications. A small village that publishes its data with respect to the Citadel standard should be able to use the mobile apps built by a city or developer. Even cities outside Europe could be interested in joining and there has already been some interest from the United States and New Zealand.

Local governments must not remain content to merely unleash innovation in their own backyard. Rather than forcing developers to adapt applications on a city-by-city basis, local governments should adopt shared semantic standards for opening data that enable mobile apps to consume POI data from diverse sources and work anytime, anywhere.

Citadel on the Move seeks to promote a comprehensive new approach to help European cities work together in a smarter and more open manner. In so doing, Citadel seeks nothing less than to advance European integration through digitisation, particularly through the creation of “smart” mobile services that can potentially be shared and used anywhere.



Geert Mareels

holds master degrees in Administrative Management and in Political Science. He worked in the Belgium Office for Overseas Social Security from 1988 to 1994 before becoming Chief of Staff to three different ministers from 1995 till 2004. Since October 2004, he has led CORVE, the eGovernment service of the Flemish Region in Belgium. Mr Mareels is also a member of the Flemish Privacy Commission. Since 2011 he has been the coordinator of the Citadel on the Move project that involves partners from the UK, France, Greece, Portugal and Flanders.

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- 01 Athens is one of four cities now participating in Citadel on the Move.
 - 02 Screenshot showing Points of Interest on a map of Athens, Greece.