Geo-Information: The Cornerstone of Open Data

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Together with public statistics, geographic information is the type of data that has been published and reused for years, even before the term Open Data was established.

'Geo-information' is crucial for many industries that reuse this data directly (e.g. meteorology, logistics, tourism), and is an important aspect in many widely-adopted applications (e.g. navigation on land, at sea and in the air, weather, events, incidents and accidents, applicability of laws).

The more available such information is, the more products and services can be developed. Many visualisations of data are more intuitive and appealing if information is represented on maps, meaning accurate geo-location resources are demanded by most re-users.

In terms of economic potential, the commercial re-utilisation of geo-information was already mainstream in the form of in-car navigation systems well before the opening up of data was a widely discussed topic.

Those systems are based on a combination of sources: map information that in many cases is bought from the mapping agencies and GPS information that is provided free of charge from satellites launched and maintained by the US government.

One issue related to the free access to the GPS information is that this data is provided by an expensive infrastructure that was paid for by the US taxpayers, while the economic benefits are distributed internationally in the form of profits for vendors of navigation systems. As is often the case with open data, the benefits do not return to where a substantial part of the cost was incurred.

The main challenge for data providers is that geo-information needs to be kept fresh and up-to-date, especially when it is used for applications (such as tsunami warnings, weather information related to air navigation) where wrong or outdated information may cause death, but also in less critical applications - such as in detection of traffic congestion where accurate information enhances the value for the users by enabling real-time rerouting advice. Meeting this challenge is a difficult exercise -one that requires substantial investment of resources and finances.

For re-users, the main enablers for accessing and using the geo-information are (a) that data is provided in standard formats and (b) that licences are clear, standardised and as open as possible.

There are a huge number of tools and platforms that enable the reuse of geo-information, widely-adopted among developers to provide useful applications for citizens. Nowadays, all smartphone users are well accustomed to location-aware applications - enabling interaction based on context, track sport activities, finding touristic spots, and sharing current locations with friends.

Standardisation of this area has been crucial. In Europe, the **INSPIRE Directive** has gathered together all geo-data providers around Europe, establishing a set of common standards to manage this useful information. Nowadays, common formats and homogeneous specifications are a reality, a success in the Open Data field. The INSPIRE experience is important to understand the need of common vocabularies and schemes to represent, and share information.

There are many different business models applying to this area, and experts from across the geo-data world converged on Demark this week for the <u>ePSI platform workshop in Aalborg</u>.

Organised as part of the wider **INSPIRE Conference**, the workshop brought together key industry

players to explore impact of PSI reuse in their geo-related fields.



The day began with a local perspective, kicking-off with engaging presentations from the <u>Danish</u> <u>Agency for Digitalisation</u> and <u>Danish Geodata Agency</u>.

Emilio López Romero from the **Spanish Geographic Institute** then took centre stage, explaining his views on the importance to think not only in Open Data, but in Open Services.

The line-up of speakers included a brace of Google representatives, with Stef van Grieken and Ed Parsons both making lively presentations - the latter of which explored Google Maps' strong focus on meeting user needs.

Among the varied presentations featured during the afternoon session was OpenStreetMap Chairman Simon Poole, who explained the importance of the OSM community and explored the challenges facing the foundation in terms of non-suitable private datasets.

The presentations used by <u>all speakers</u> during the workshop will soon be made accessible online, as will a series of video recordings taken from the event.

Watch this space for more details announced shortly.



This blog post has been written by Luis Meijueiro, Makx Dekkers, Martin Alvarez-Espinar.