

Interview INFRABEL

For more information about this interview, please contact Mr. Maxim Chantillon (KU Leuven Public Governance Institute – maxim.chantillon@kuleuven.be)

Specific role of the department within Infrabel

Responsible for GIS system. There was an initial cooperation with NGI for first data collection and a second collaboration was discussed for dissemination of the data but never went through as NGI backed off at the end. Reason why this happened is unknown – however, an allegation was made on the fact that the previous vice-head of the NGI retired.

GIS system: map of tracks, indicate every evolution, change on the tracks (Real Dolmen Geo-RAMSES). Lots of people want access to this information but it is based on Infrabel's infrastructure reference system (train lines and km poles, the latter being used as reference for POI, objects, etc) so it is not easy for these third parties to base their info on it. GIS system also has a "photo" mode (like Google street view) but only took the pictures once in 2011 when created it and no budget for new photos. Aerial photos of the regions could be used, but all different scaling and not enough detail. Furthermore, an online tool with on-train videos is made. This is however unavailable for the public due to security and privacy reasons.

So the geo-ict service of Infrabel created this map and manages the changes and new rails.

Relationship with other levels / institutions

There was an initial cooperation with NGI for first data collection for GIS and a second collaboration was discussed for dissemination of the data. Idea was that the NGI was going to be the partner to share this data with outside world so that GIS Infrabel would no longer have to take care of it but never went through as NGI backed off at the end. Reasoning: see first para. Currently, the NGI has given its data, and Infrabel gives it railway data in return. INSPIRE is dealt with by the NGI.

Their map is also used for contact with traffic control, for example for incidents. These third parties have access to it via extranet and specific authorization. Is also available to ASTRID – however, ASTRID is not the only organization responsible for emergency situations – e.g. fire brigades all work on their own local level, increasing the number of request for information substantially. Idea also to make it accessible via VMS online. But not done yet for reasons of data quality and security. Two years ago, couldn't even share it with SNCB! Now data is shared but via download tools – result: no real-life updates that appear directly in the system.

Also have a project within Infrabel of "Railview" (=live feed with cameras on train). Use that to locate very precisely every object, with 1m precision, and then generate 3D maps based on that. Developed this, for 90%, with the ICT unit of SNCB, which also calls on to extern experts (from KPGM, etc). Teams of GIS and IT within Infrabel are administratively separated. As a result budget of GIS unit is transferred to the IT unit for the development of tools etc.

GIS system and Ramses are transversal and are organized per specialty within Infrabel (and they group all these infos in their GIS application but is read-only, people can't extract data from it). However, data is collected from the 5 other working areas in Belgium: 3 in Flanders, 2 in Wallonia, 1 is Brussels (more or less the HQ).

Also work with Flanders Region, and Brussels Region. In Wallonia contact with SPW to exchange data. Some years ago, they had issues with Regions who didn't want to exchange data with them because they were Federal. Main issue: The three regions set their own standards and legal agreements (via decrees), as a result INFRABEL has to oblige to all three regions, creating some compliance difficulties. E.g. KLIP, CLIM, GRB, OSIRIS, GIPOD, etc.

Also receive the cadaster every year from FPS Finance and use that as lower layer of the map and cadaster expects in return to receive data about the land owned by Infrabel and SNCB but SNCB didn't want to share because then would have to pay taxes. Result: An ongoing topic that has to be resolved.

GIS team has practically no contact with FEDICT, mostly the job of ICT department. It is unknown if there are contacts.

Standards and Open data

Use Oracle as a standard (Oracle Spatial in order to keep the data open). Have migrated to SAP now and have to comply with that structure. Decision to migrate to SAP has been taken by the general management of INFRABEL, not their decision – they even think that it is not correct but will comply. As a result they will have to use ESRI – however, not used by other organizations they cooperate with on a regular basis.

Opened directly for everybody within Infrabel and don't really know who uses it – never did a study, neither a general advertisement campaign. But they have 300 unique users a day a month so real need internally. Also at the beginning didn't want to put too much emphasis on it because still had technical issues but now feel comfortable enough to make it more "famous" internally. However, do not want to push too much for it as the other zones with their own HQ are not really in favor of what is coming 'from Brussels' (= decentralization versus centralization issues).

GIS Team would be technically able to open the data to everyone "in one click" but they don't manage the data itself so they just comply with what they are told by the other departments of Infrabel regarding whether to share the said data or not. Plus, do not have the possibilities (staff or financially) to set-up and maintain a data platform for the public.

Also have a database with bridges, tunnels, etc that could interest the "exceptional convoy industry" for example. Are ready to share it but also question of how to do this.

Similarly, they have list of railway stations based on their map but official list is the competence of SNCB.

So technically they could share the data but the agreement has to be signed with the relevant department. Third parties can also get access to it via "map-in" in the "business corner" but have to ask authorization for this and it is not always easy to get it.

Also sometimes answer to ad hoc requests but then harder to keep the specific shared data up to date.

Are much more into open data now and strong pressure of De Croo, Infrabel was already compliant...the SNCB less. So they would be more than happy to share but need the "go" from the relevant service. Standard policy: support from the political top management as "the data is nothing more than what users can see from the sky"

Also more ready to share data now than before because they have much better data quality, so less afraid of liability issues and experience that has been working good internally so gives confidence. And given that SNCB and Flanders open it, then they are much more into opening. There is no longer a reason to keep it closed.

Tomtom have contacted them too, but didn't want to sell to them. There seems to be an issue with private sector companies that would like to use Infrabel data.

They also work with the ERA, to comply with European standards for railway infrastructure (=RINF) (also RailML, which is a the idea to develop an XML data standard for railway infrastructure). Also comply to INSPIRE because they have to but do it via NGI. Standardization is important, however, not just the INSPIRE framework, the railway standards are more important.

Origin and future of GIS

Incident at the origin of GIS is the Ghilsenghien catastrophe and since then more and more interest was given to GIS, even if people thought that it was much more complex than it really is. So started small and kept building additional layers on it. However, the catastrophe was the trigger but there was already an ongoing discussion in the general management of Infrabel on using more GIS data. It was however, until the event, unclear in what way and what the extra budgetary costs would be.

The development of the systems was initiated in the ICT department with a multi-disciplinary team. The additional functionalities are added when users asked for it. However, there seem to be difficulties to identify these users (even though there are more than 300 users a day).

They have budget to keep GIS running but not as much as previous years. Nevertheless they have sufficient people to keep it up and going. Unclear if the budget is sufficient to develop new or extra tools.

Relationship with citizens

Infrabel cannot talk with the citizens. Citizens go through SNCB. They sometimes get requests for data from the citizens (such as researchers) and give it to them (opposite to the private sector where they don't give the data so easily).

Idea at one point was to create hotspots of "railworks" to inform citizens but never created because nobody wanted to manage the data.

So contact point for citizens is SNCB and use the maps of Infrabel. SNCB does not have one specific GIS team (as opposed to Infrabel) but have various services who are in contact with GIS and SNCB is making use of their own system "ATLAS" (Bombardier developed it). However, Infrabel GIS team is unaware of who the GIS contact persons are at the SNCB. Relations do not seem to be optimal and remains at a personal level.

What next ?

Really hope that NGI will become the shop to decide who they share the data with and GIS would just give the data to NGI. Are also included in Optifed-1 (TomTom data) in order to have the same data as ASTRID. Friedel Van Roy is convinced that Open Street Map is better than Tomtom (new streets, quality of data, cycling routes which are really visible in OSM and not in Tomtom => interesting for Infrabel if road is parallel to tracks, etc.). They think that there would be a real need for the NGI to work with Open Street Map, in order not to become irrelevant.

With GIS, only the people from the Infrabel community could signal the errors but in the end not so much participation. In total 5 train zones and only one GIS but some of these zones also have additional maps in their designs bureau. Used to be drawn by hand, now they are migrating to SGI data and maps. Try to couple these maps with their Geo-RAMSES system. Most of these maps are available on their website via their "netverklaring" online. There are obligated to share this info with the private operators who use their network.

Three regions all set different standards, would be great if there would be increased common standardization. However, not so much the standardization that is a problem – rather the topology has to be standardized.

Legal framework is clear enough.

Difficulties that they face

Their real difficulties are for sharing the data and working with three different Regions who have different ways of working and so asks a lot of time. Would be a lot better if could all use the same standards.

SNCB, for its part, cooperates with De Lijn, TEC, and MIVB and also with Google (but for Google probably obligated to share with them).

Data that they need

Use external data (street names, GRB, PIC, URBIS, sky photos of the three Regions) but mostly authentic source of their own data. Most of the time on data is searched for on an ad-hoc basis. Mostly rather easy to receive the data.

Cadaster data : receive it but always difficult to get it – however the unit does not know if this is due to the Infrabel negotiators or the Cadaster. Also discuss with them to have the names of the parcel owners that lie right next to the rails (mostly for trees that are too close to rails and who could be

dangerous because fall on the catenaries). Also issue with the leaves that fall on the tracks and cause train slips.

In the Netherlands, they update their GIS system every year. So could be nice here in Belgium too, but need better pictures from the Regions every year and this is not likely to happen.

GIS data is not available on "geopunt.be" as the Flemish administration request that the data is updated every year.