Progress of Russian Geomatics in 2016

For Russian geomatics, 2016 was an abundant year in terms of events, laws and new projects, according to Andrey Pirogov from Racurs. After numerous attempts to commercialise Russia's Earth observation and remote sensing data (RSD), the Roscosmos State Corporation (former Federal Space Agency) finally managed to do it at the end of the year and the data can now even be purchased by non-residents! A number of Russian companies have already signed contracts regarding proliferation of the Russian RSD obtained by the Kanopus-V (2m GSD) and Resurs-P (1m GSD) satellites.

(By Andrey Pirogov, Racurs, Russia)

However, it's difficult to say whether the Russian data can become competitive in the world market. The cost of 1km^2 worth of data from Resurs-P is almost USD10, and although the data from Kanopus is cheaper it is delivered as microframes which is very labour-intensive in terms of processing. Another significant Roscosmos project was an open-data ERSD portal providing access to the Resurs-P and Kanopus-V data.

The other large-scale federal project in 2016 was the 'Business Navigator' service for small and medium-sized enterprises (SMEs), which is as yet only available in the Russian language. The service was commissioned by the joint stock company 'Federal Corporation on the Development of Small and Medium Enterprises', which was created by order of the president of the Russian Federation in 2015. The service for SMEs was developed as a "resource for businessmen who want to start or promote their businesses and to work honestly and transparently to pay all the taxes and securing their own future and the future of their children". We hope that the service will become popular and help the promotion of street retail (as opposed to shopping malls or outlet-based retail).

In 2016 the joint stock company 'Rostelecom' entered the Russian geomatics market. It is a large telecommunication company, partially government-owned, which offers its own geoinformation system, namely RusGIS. Unfortunately there is lack of information about the results so far, although the company is loudly announcing its GIS ambitions and has created a number of geoportals for regions of Russia.

As for the Russian commercial companies, the NextGIS and Sovzond projects are worthy of a special mention. NextGIS presented a cloud-based version of the NextGIS Web and the QMS service (a catalogue of WMS/WFS services). Sovzond issued a cartographo-statistical product called World Evolution, which covers the major changes that have occurred in different countries across the globe between the 1980s and the present.

Open geodata progress

The amount of open geodata increased in Russia in 2016. For the first time ever, free access was given to data about road accidents in Russia. The Interior Ministry provides the data in the BezopasnyeDorogy.RF portal.

The actions of the Federal Service For State Registration, Cadastre And Cartography (Rosreestr) were somewhat confusing. It opened the section containing data about the administrative-territorial division of Russian but suddenly closed it a week later. Therefore, one now has to use the data about the boundaries within Russia from the OpenStreetMap project once more.

The largest Russian bank Sberbank launched the 'Open Data' project. Although Sberbank's so-called 'open data' does not exactly fit with the commonly accepted definition of open data, we nevertheless welcome the initiative. We hope that there will be more data and that it will meet standard international requirements.

Russia is keeping pace with the world in the sphere of unmanned aerial vehicle (UAV) usage. The Russian UAV mapping market is presented with five largest companies producing a dozen fixed-wing UAV models and five multicopter models. The UAV market also survived a legislative challenge in Russia in 2016, when drones were banned from January until June. The laws were later revoked, however, and one can now use drones again providing the correct registration procedures are followed.

What can we expect in 2017?

The terms 'import substitution' and the 'Register of Russian software' became the major trends in the year 2016. Analysis of GIS-Lab.info (the most popular Russian forum of geomatics experts) shows an increasing number of queries for substitution of the foreign GIS for Russian ones or ones with an open source. Practically all Russian software developers entered the Register of the Russian Software which is controlled by the Ministry of Telecom and Mass Communications of the Russian Federation. In 2017 this trend for import substitution will continue.

The ministries and offices of various levels will keep increasing the amount of open data, and not only of economic statistics. For instance,

the public transport navigation data in Samara is open, due to the fact the citizens can choose between different mobile applications for the transport system. The open data will be actively applied in the regional and institutional GIS projects.

Global expectations

Cloud solutions and computing clusters are becoming more and more popular on the world stage. The virtual reality technologies are being intensively developed. Besides, we expect the growth of the Earth observation and remote sensing satellite constellations. Within the next decade or so hundreds of large satellites and a couple of thousand micro- and nanosatellites will be launched into Earth's orbit. Everyday coverage with 1-3m GSD will be available soon. This will be followed by the transformation of quantity into the quality of the data distributed to the customers through web services.

The GIS industry is going to be affected by the level of competition in the data visualisation field. The projects of start-ups like Habidatum and Urbica are changing the approach to handling spatial information, from the classic reflection of the data on a map to the information being managed in the four-dimensional space. Integration of GIS with GRM and ERP systems has become evident. Consequently the methods and techniques in the sphere of geographical and geoinformational education will also have to change. Managers, marketing and financial experts should all be educated about GIS.

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