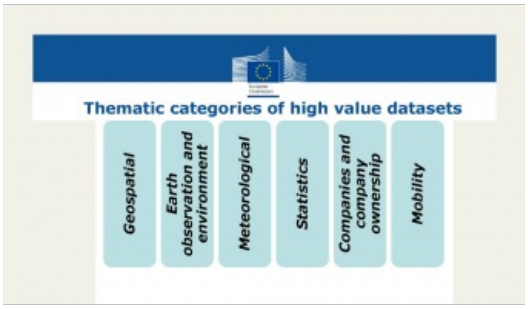
AUTHORITATIVE DATA IN THE SPOTLIGHT

How the New EU Directive Will Change the Geospatial Data Market



The European Union (EU) is adding a new dimension to the digital data-distribution policies of mapping agencies, cadastres and land registries. In two years' time, a new EU directive will make it compulsory to provide open and free access to the most crucial, publicly funded geospatial and Earth observation data for use and re-use. EuroGeographics and EuroSDR, the two most renowned pan-European organizations in these matters, have reacted positively, assuming there will be sufficient national funding. After all, both society and the geomatics sector stand to benefit from increased use of 'authoritative' geospatial data.

Published by the EU last summer, the Directive on Open Data and the Re-use of Public-sector Information (the 'Open Data Directive') sets out an updated set of rules on the re-use of public sector information. It relates to any content, whatever its medium, when produced by any public-sector body or with public funding (not subject to thirdparty copyright). The charge for non-highvalue datasets must be limited to marginal costs related to the initial provision of the 'documents'. It also specifies 'high-value' datasets which should be made available for free in machine-readable formats, via APIs and (where relevant) as bulk downloads. There are six categories of high-value datasets: Geospatial; Earth observation and environment; Meteorological, Statistics; Companies & company ownership; and Mobility. This year, a list of specific datasets within these themes will be adopted by way of an Implementing Act, issued by the European Commission (EC). "The thematic categories listed could inter alia cover postcodes, national and local maps, energy consumption and satellite images, in situ data from instruments and weather forecasts, demographic and economic indicators, business registers and registration identifiers, road signs and inland waterways," states the EC.

According to Andrus Ansip, the former EC vice-president for the digital single market, "Data is increasingly the lifeblood of today's economy. The total direct economic value of public-sector information and data from public undertakings is expected to increase from €52 billion [US$60 billion] in 2018 to €194 billion [US$222 billion] by 2030 (these figures are based on the EU including the UK, Ed.). With these new rules in place, we will ensure that we can make the most of this growth." EU Member States have until July 2021 to incorporate the directive into law. In case of a substantial impact on the budget of the public bodies involved, the provision of free access may be delayed by up to two years.

Mick Cory (r) and Joep Crompvoets: â€œCompetition is a race to the bottom, so partnerships and collaboration are the only healthy way.â€ (Image courtesy: VBB, Jeroen van Berkel).

Authoritative data

The high-value geospatial datasets are mostly in the hands of national mapping agencies, cadastres and land registries. In Europe, two important organizations that act in their interests are the policy-oriented EuroGeographics and the research-oriented EuroSDR (see box).

The secretary-generals of both organizations strongly agree with the European Commission that geospatial datasets can speed up the emergence of a wide variety of value-added information products and services, including ones based on artificial intelligence. “Therefore data accessibility is a key priority, because we believe our members’ authoritative data should be used as much as possible,” state Mick Cory (EuroGeographics) and Joep Crompvoets (EuroSDR). They emphasize that the economic perspective is one thing, but that the public interest is also important. The accuracy of the official data regarding what you own, where you live, property, administrative/democratic/state boundaries, 4D topography, land use and so on can have important fiscal or legal consequences. Crompvoets: “The real value of this data is not what you can earn with it. Instead, the value is fundamentally societal: legal certainty to consolidate that we live in nations where the rule of law means something. You can totally disagree with the outcome of taxes and legally binding decisions, but you need to be able to trust the underlying, identifying data as correct – as you can with authoritative data.” Cory: “It is a matter of certainty about your rights as a citizen. To give an example: there is nothing more fundamental than property rights, and therefore the need for a state authority to make clear what your rights are. The geodata that private companies deliver is fit for many purposes, but you want to be sure that the organization telling you what you own has a legal mandate to do so by providing precise, unambiguous information. Furthermore, you want to be sure that your privacy is protected!”

Trust

The quality of authoritative data is not yet perfect in every country, but extensive (and expensive) quality validation mechanisms are already a core business of EuroGeographics’ members. A report published in 2019 titled ‘Authoritative Data in a European Context’ was a joint project of EuroSDR, EuroGeographics and the University of Leuven in Belgium. The report was based on a thorough survey followed by roundtable discussions with executives at national mapping, cadastral and land registration agencies in 38 countries on the European continent. The participants believe that trust in the (known) quality of their datasets is critical. Accuracy, frequent updates, transparency and availability on a continuous basis are the characteristics that keep their data authoritative. Because the overall result is only as strong as the weakest link, they are certain that these reference datasets will grow in importance now that more and more processes are being automated. They foresee more jobs, thriving businesses and higher tax revenues because of many more innovative information services in which private data is combined with public data – and that is precisely the EC’s intention in enacting the Open Data Directive. Those automated processes should depend on authoritative datasets, such as addresses, cadastral and administrative boundaries, and other data. The data producers see a growing group of users who also consciously prefer to shift the responsibilities and potential liability for data quality onto recognized authorities.

Geospatial high-value datasets must be made available for free in machine-readable formats, via APIs and (where relevant) as bulk downloads.

All this does not mean that private actors produce low-quality data. “Google is excellent for navigation and suchlike. Open Street Map is also invaluable for countries where they don’t have sufficient infrastructure to produce authoritative data,” remarks Joep Crompvoets. “It all depends on what the data are being used for. If the outcome of an information process could have serious consequences for the ‘target’ person or company, you are glad to be able to use authoritative data.” That choice is made easy if that data is free of charge or at least affordably priced.

Funding

But someone has to pay. “If you have sustainable funding to keep members’ data collection activities going and ensure data quality and up-to-dateness, of course the data can be made available for free. It is a matter of a state’s financial policy,” says Mick Cory. He knows that in many countries that will mean a struggle with the Finance Department. As this is an EU directive which lays down the results that must be achieved (e.g. free high-value datasets the EC cannot enforce decisions in the Member States regarding authorities and business models. Instead, each Member State is at liberty to decide how to transpose directives into national laws. The European Commission is now in consultation with the Member States on the issues of which specific datasets are ‘high value’, which public authorities can use taxpayers money to maintain these, what their business model is for releasing the information, and how the release of data will impact on the national economy. Furthermore, one possible exception to the free availability has to be taken into account: the requirement shall not apply to public undertakings if there is a risk of distorting competition. The EC wants to reach a decision this summer. “If the impact on the national economy is greater than the impact on the organization’s business model, that is sufficient justification to release the data,” summarizes Cory.

The geomatics private sector will profit from the new developments. There will be many free high-quality datasets that are easy to re-use as building blocks for new offerings. (Image courtesy: thinkWhere).

Geomatics sector stands to benefit

The geomatics private sector (active in surveying, mapping, remote sensing, cartography, GIS, GNSS, photogrammetry, UAV and Lidar) will profit from the new developments. Firstly, there will be many high-quality datasets that are easy to re-use as building blocks for new offerings. The premise is: make it open and there will be new uses. When the USA’s President Clinton opened up the codes for GPS, there was a boom in new applications in the navigation industry.

Secondly, there will likely be more need for third parties to participate in work processes of public authorities. The ‘Authoritative Data in a European Context’ report outlines three different roles. For core authoritative datasets – the ones used for decisions that have important legal and fiscal consequences – governments must stay in charge of the total governance. A private company could collect the data, of course, but that must be validated by the public authority. That could also be the case with other authoritative datasets, but then as a choice. The datasets could be governed by other public organizations or the private sector. For all other datasets, the public authorities are one of the stakeholders in a co-creating ecosystem. “Competition is a race to the bottom, so partnerships and collaboration are the only healthy way,” believe both secretary generals. Another benefit for the geomatics sector is that, if the centrally financed budget is confirmed, professional standards in surveying qualities can be maintained. “Otherwise the very nature of the profession becomes undermined,” says Cory, a professional surveyor himself. “I would say we all share that attitude, wherever we are working in this sector.” Joep Crompvoets

agrees: “A company in the geomatics industry wants their data products to be used as much as possible, not only because of the profit, but also to contribute to the greater good. If a surveyor’s work supports authoritative decisions, there will be tighter standards to comply with and more education and training will be required… so professionals will make more money than when geospatial data collection can be done by just anyone.

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