

# Open Data – the Approach in North-Rhine Westphalia, Germany

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## SUMMARY

In the early days of the GDI NRW the goal was defined to stimulate the spatial information market which was estimated to be only at 15 % of its potential. At that time the use of services in applications outside of the classic spatial information sector was not developed at all. This was one of the reasons to start projects to show the benefit of SDI-services. As the major provider of reference data the Surveying and Mapping administration of North-Rhine Westphalia (NRW) was launching an open data portal in 2004 - called "TIM-online" (Topographic Information Management online, [www.tim-online.nrw.de](http://www.tim-online.nrw.de)) which provided all available reference data free of charge for viewing and non commercial use. In the last 7 years this portal was extended several times. Today practical experiences are available in this approach for open data.

After more than 10 years still the easy and free of charge access to spatial data is the bottleneck in the development of the spatial information market. Applications like google maps, open street map and several others have overcome this bottleneck by establishing other business models. As a result the topic of open data is on the agenda of the public data agencies. In North-Rhine Westphalia an approach for open data is currently in the discussion which wants to enable the commercial, non-commercial, internal and external use of spatial information. The central idea is to look at the content and the format (raster or vector) of the data and to define open data products. Results of the discussion are expected in 2012.

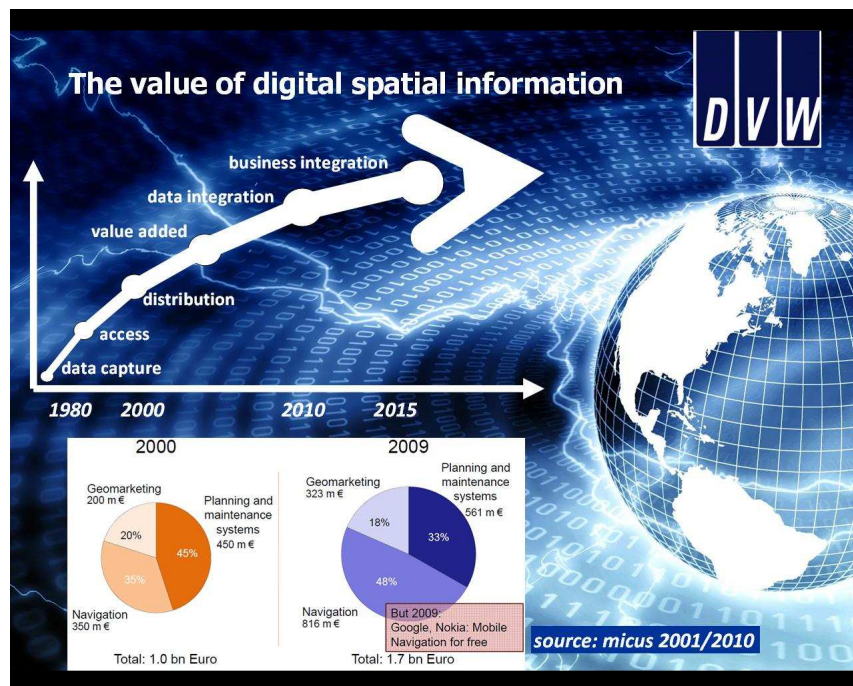
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## 1. SDI

In 1999, the German State North-Rhine Westphalia established its spatial data infrastructure (“GDI NRW”) as a joint initiative of state agencies, municipalities, private companies and scientific institutes. The GDI NRW took under consideration the cooperation approach of public private partnership and founded the framework for (geo) E-government by describing the interfaces in the context of government to consumers (G2C) and government to business (G2B). Since 2001 these activities were integrated in nation-wide initiatives with the aim to generate and strengthen the SDI of Germany (GDI-DE) as a common initiative of the German States, the municipalities and the federal government (“from local to nationwide”).

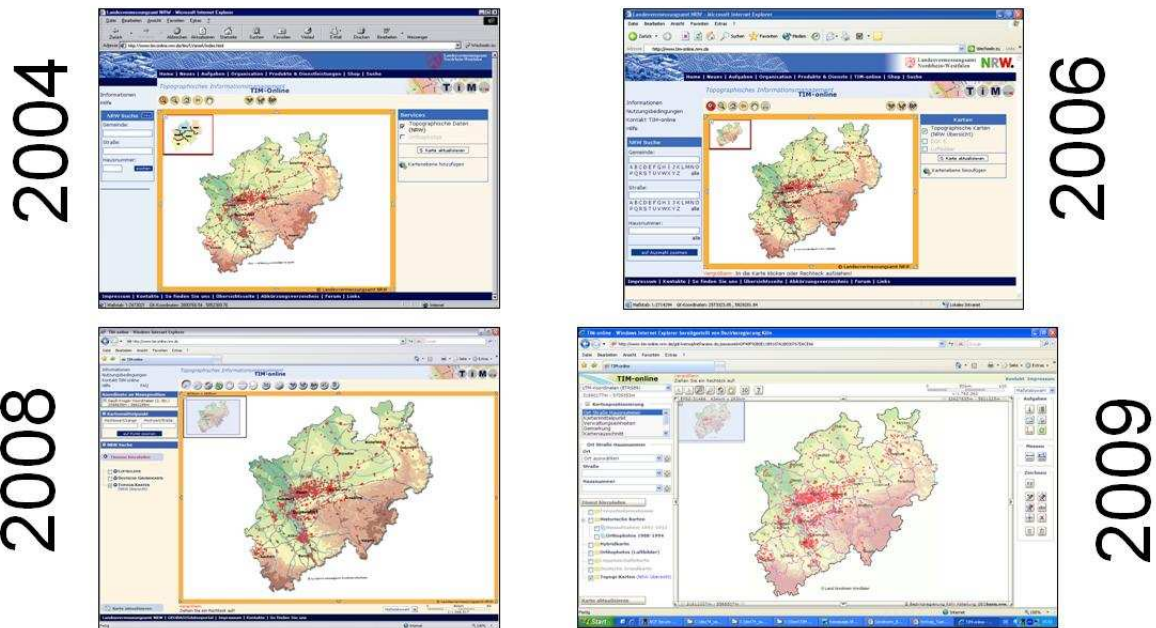
In the early days of the GDI NRW the goal was defined to stimulate the spatial information market which was estimated to be only at 15 % of its potential (Micus 2001, 2009). At that time the use of services in applications outside of the classic spatial information sector was not developed at all.



During the last years spatial information was increasingly integrated in the business processes, the so called value added chain is currently filled with life. Nevertheless, after more than 10 years still the easy and free of charge access to spatial data is the bottleneck in the development of the spatial information market.

## 2. The open data portal “TIM-online”

As the major provider of reference data the Surveying and Mapping agency of NRW was launching an open data portal in 2004 - called “TIM-online” (Topographic Information Management online, [www.tim-online.nrw.de](http://www.tim-online.nrw.de)) which provided all available reference data free of charge for viewing and non commercial use. In the last 7 years this portal was extended several times.



Today practical experiences are available in this approach for open data. On the monthly average users click on 1.000.000 maps and print out 30.000 maps which is an additional feature of the portal. Starting TIM-online the user has to accept that the portal is free of charge only for viewing / printing and non commercial use. Analyzing the user behavior it is proved that

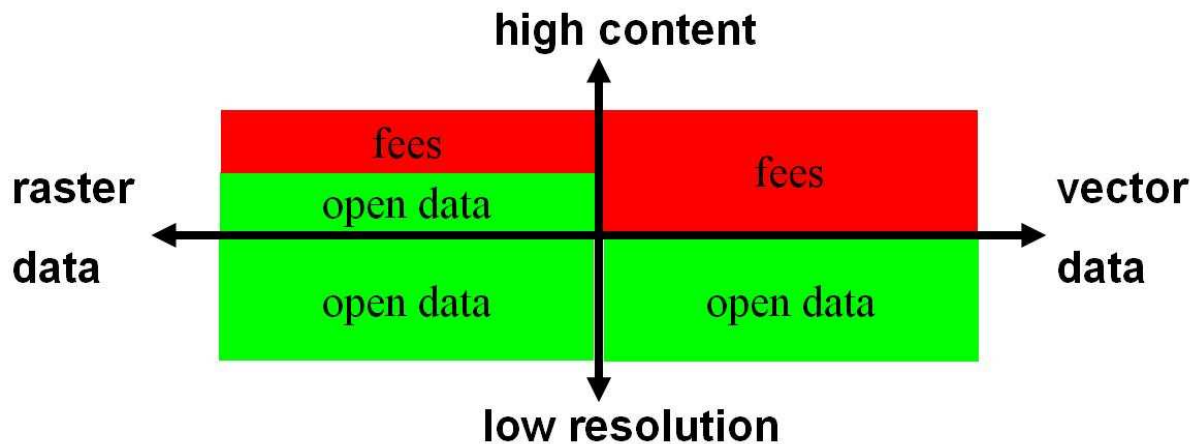
- the spatial information is most frequently used for private purposes conform to the accepted conditions
- in a very view times TIM-online is also used for “near business” purposes (especially cadastral data in the context of the printing function)

As one result of this the portal was changed to prevent wrong use. On the other hand side it became obvious that there is no solution available in the low cost information sector for customers with a “near business” or even a “business” demand. As a consequence the question “open data for commercial use?” was risen.

### 3. Open Data

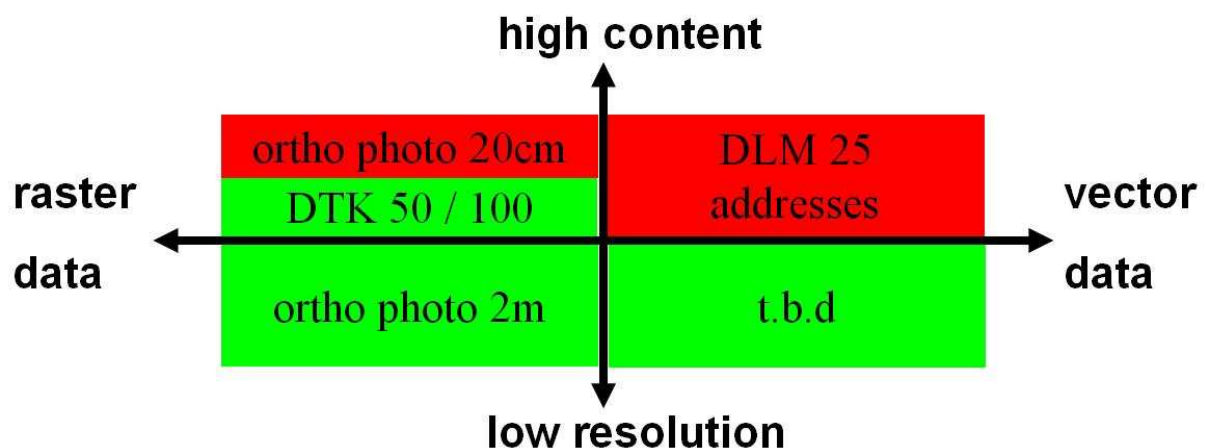
To derive rules for open data it was necessary to analyze the spatial information. Spatial data is provided as raster or vector data with high content or low content / resolution.

In the current discussion the following principles might be applied:



- open data should be defined for the reference data of Surveying and Mapping. It will also include cadastral data
- open data should be open for all uses (private, commercial, internal use, external use, value added, ...)
- open data should be raster data provided via web services (with exceptions)
- vector data is in general interested for professional users. In this case fees apply.

In detail a definition process is required for each product:



## REFERENCES

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## BIOGRAPHICAL NOTES

From 2002 to 2007 Dr. Jens Riecken was chair of the business area “Cadastral Information Systems” in the Surveying and Mapping Agency of North-Rhine Westphalia. During this period he was responsible for the standardization of spatial information and cadastre in the administration of surveying and mapping in North-Rhine Westphalia. Jens Riecken was one of the main actors in the SDI developments and was member of several state and federal working groups and the EU expert group INSPIRE.

From 2008 on, when Surveying and Mapping became the department “GEObasis.nrw” in the North-Rhine Westphalia Government Office for the Cologne District, Jens Riecken was chair of “Data Standards, Geodetic Reference”. He was in charge for the standardization of spatial information and in addition for the realization of the geodetic reference, nowadays by satellite positioning services. From 2010 on Jens Riecken was working for two years in the Ministry of Interior of North-Rhine Westphalia. He is responsible for GIS-developments (AFIS, ALKIS, ATKIS) and products. Since 2012 he is again in charge of “Data Standards, Geodetic Reference” at GEObasis.nrw.

Jens Riecken is Vice-president of the DVW e.V. - Society for Geodesy, Geoinformation and Land Management in Germany.

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