

The German Spatial Data Strategy

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SUMMARY

The National Spatial Data Strategy (Nationale Geoinformations-Strategie - NGIS) defines the common goals of the German federal government, federal states and municipalities on how to foster the provision and use of spatial data in Germany. The goals were designed in collaboration with industry, the research community, private initiatives and other stakeholders and will be jointly implemented.

According to NGIS spatial data should

- be effectively used for all space-related decision-making processes,
- be comprehensively and economically collected to gain added value and
- help to support national and local interests and to fulfil commitments.

The NGIS is intended to give guidelines for the long-term future. It was developed in the federal system of Germany, involving industry, the research community and other stakeholders and strongly supports the German e-Government Strategy (NEGS). The Spatial Data Infrastructure Germany (GDI-DE) provides the spatial component of e-government. The strong linking of national strategies will facilitate collaboration on information technology and e-government amongst federal government, federal agencies, the 16 states and local authorities.

The strategy identifies three key principles such as

1. Supply with basic, quality assured spatial data
2. Foster the multiple use of spatial data and
3. Promote innovations in spatial data management.

In the NGIS goals were defined and grouped into 15 target activity areas. The national committees are currently working to enable the implementation progress. In addition, responsibilities for activities are to be defined in order to allow smooth implementation of the strategy.

The oral presentation will draw on the experience gained in developing the NGIS and gives an overview of implementation activities and current status.

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1. DEVELOPING THE NATIONAL SPATIAL DATA STRATEGY

The use and application of spatial data is undergoing significant change, due to new technological possibilities, the digital revolution and the challenges arising from budget and staffing limits and growing expectations. As a result, cooperation between providers and users of spatial data has been fundamentally transformed and will continue to change. The growing need for spatial data and for coordination is also demonstrated by the creation of a variety of European and international projects, including Copernicus, Galileo, GEOSS and GGOS. Along with classic spatial information, remote sensing and navigation are becoming more and more important. Germany has a federal structure, which results in different organization and division of tasks at the federal, state and local levels. Given the large number of stakeholders having different authorities, potential and views, this sometimes leads to conflicting goals. But there is a general consensus on coordinating efforts and pooling scarce resources in order to avoid duplication.

In 2012, the Federal Government's Third Geo-Progress Report recommended that the roles of all stakeholders should be defined in a spatial data strategy, thereby making clear who can contribute in what way to achieve the shared goals. Because of Germany's federal structure, the strategy was to be drawn up under the supervision of a joint federal and state committee. The Spatial Data Infrastructure Germany (GDI-DE) Steering Committee took on this task.

The GDI-DE Steering Committee is responsible for the strategic management of GDI-DE measures. The GDI-DE comprises a technical and organizational network of federal, state and local governments and a large number of projects, working groups and initiatives. In addition to government agencies, the network also includes partners from industry and the research community. The GDI-DE is a key element of the federal IT and e-government infrastructure and part of the European spatial data infrastructure being implemented in accordance with the EU's INSPIRE (Infrastructure for Spatial Information in Europe) Directive.

The National Spatial Data Strategy (NGIS) defines the common goals at federal, state and local level. These goals are to be set and implemented in dialogue with industry, the research community, private initiatives and other stakeholders. Spatial data should be effectively used for all space-related decision-making processes, be comprehensively and economically collected to gain added value and should help support national and local interests and meet local obligations. The NGIS is intended to contribute to the National E-Government Strategy and encourages cooperation on information technology and e-government.

The work of federal, state and local public administration was coordinated via the structures of the GDI-DE Steering Committee. A workshop and an online consultation process enabled participation

by additional stakeholders from industry, the research community and private initiatives. At the workshop, before the first draft of the strategy was drawn up, the various stakeholders were asked about their goals, expectations and possible contributions. They were also able to articulate their shared and diverging views. After the first draft was drawn up, all participants could rate the strategy's proposed goals and comment online, and 250 participants took advantage of this opportunity. Of those responding, 60% were from public administration, 11% from industry, 7% from the research community, 4% from professional and trade organizations, and 18% private individuals. Overall, 770 comments were received. The majority of stakeholders (80–100%) agreed with the goals, although some considered many of the goals unrealistic. The main points of discussion had to do with implementing Open Data, ensuring technical and semantic interoperability as a key characteristic of the GDI-DE, and the role of the GDI-DE and its integration with stakeholders' networks. The goals of making spatial data available largely in the framework of a public-private partnership, preventing users from permanently storing secondary data collections, and increasing the involvement of private initiatives in collecting spatial data found only isolated support.

2. CONTENT OF THE NATIONAL SPATIAL DATA STRATEGY

The GDI-DE Steering Committee adopted the strategy in August 2015 and presented it to the policy-making bodies, which welcomed the strategy, acknowledged it as an important addition to the National E-Government Strategy and promised to help carry it out.

The NGIS sets out three important principles:

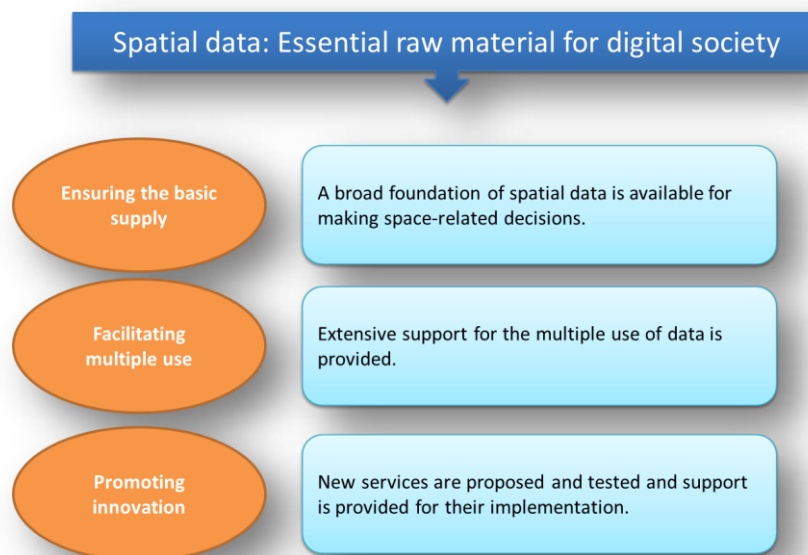


Figure 1: Principles for spatial data

A central role of government is gathering and providing basic access to high-quality spatial data in order to maintain national sovereignty and ensure the provision of vital services. But the broad range of spatial data can be fully used only if the knowledge about spatial data is transparent and described informatively. Good access to spatial data and multiple use are also cornerstones of Open Government.

Interoperability is a basic prerequisite for multiple use. The agencies that keep spatial data are responsible for this possibility. Services should be provided cost-effectively and in a way that conserves resources; they should also be available to many users at the same time. Open Data solutions are desirable.

Spatial data offer enormous potential for innovation. Innovation requires dialogue and a framework for joint projects. So stakeholders are called on to play an active role in technological development and recognize potential at an early stage.

The goals of the NGIS can be divided into six areas which are oriented on the National E-Government Strategy:

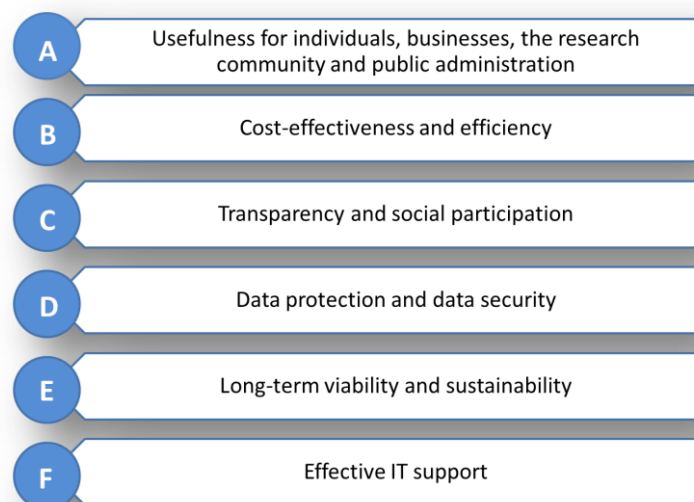


Figure 2: Goals of the NGIS

3. LESSONS LEARNED

This discussion has brought stakeholders together and demonstrated what they have in common. The topic of spatial data has gained greater attention from policy-makers. Its future can now count on political support. The process of developing the strategy was communicated in a transparent way, enabling broad involvement in the process and widespread acceptance of the strategy and its goals. The goals can be implemented in various ways and at various speeds. The fears and concerns of stakeholders led to the desire to document both what is usually taken for granted and favourite

features. In the hope of producing a broad consensus among all stakeholders, the goals are somewhat loosely formulated and unspecific. Thus the formulation of the goals in the NGIS leaves room for interpretation. In some cases, different interpretations of the results to be achieved become apparent during the implementation process.

Now the real work of addressing and carrying out the goals begins. While the positive effect of attention should be taken advantage of, more time will be needed for further coordination. This tension is similar to that which arises with other measures of modernization and change which entail a cultural transformation.

To sum up, the consultation process proved useful. Without it, there would have been no broad discussion, and fears and shared interests would not have been identified. This strengthens the further development of national spatial data.

REFERENCES

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2015: National Spatial Data Strategy

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