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## **The future of framework data: moving away from the map sheet**

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# The future of framework data: moving away from the map sheet

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## Abstract

Maps can be considered as the traditional asset of National Mapping Organisations (NMOs). However, the demand for framework data is changing rapidly due to all kind of societal trends and due to technological developments. Not only more customizable products are required, also access requirements to the products have changed. Modern ICT supports the development of new delivery mechanisms in the framework of Geospatial Data Infrastructures (GDI). But equally important is the fact that this modern technology allows the implementation of new concepts for framework data resulting in new products and services. How can NMOs use and adapt their traditional asset in this environment such that they can still call it an asset? We would like to address the following three issues:

- Framework data should be offered in a flexible way using for instance the Geographical Markup Language (GML) as a delivery mechanism. Users can use the data directly in online applications and make their own visualization based on style sheets in combination with Scalable Vector Graphics (SVG). The products could play a prominent role using the opportunities of the WWW. Next to acting as an interface to other (geo)data, and being a complementary part of a search engine on the Web, specific NMO style sheet visualization can offer the base for third parties applications.
- Next to the above adoption of the traditional framework data delivery services we see several other developments that will have an implication on the requirements for framework data. Among these we see on the one hand location based services and mobile GIS applications, and on the other hand the application of virtual and augmented environments. In this context framework data should be seen as a reference to hook on other information rather than a visual representation of the actual topography.
- If NMOs want to secure their assets they have to adjust to the developments where new information products and services are required. In the past the production processes encompassing the different stages of data acquisition, processing and delivery required highly skilled and specialised staff, high material investments in specialised equipment and storage capacity for stock of map sheets. At that time economic data provision required standardisation of products. The current demand for framework data is very much ad hoc and application oriented, while technological developments allow other organisations than NMOs to enter this market and develop their own niche and challenge their monopoly positions.

What should the NMOs do?