

Successful SDIs: does the Marine Geo-sector provide a much-needed beacon?

Frederika Welle Donker
OTB Research Centre for the Built Environment
Delft University of Technology
f.m.welledonker@tudelft.nl

Abstract

With Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE) in the process of being implemented in most EU Member States, the aim is to develop a European spatial data infrastructure. INSPIRE is to facilitate the exchange of geographic or spatial information in order to ensure integrated environmental policy-making (EC, 2007). Local spatial data infrastructures (SDIs) are slowly emerging, with the intention of linking these into national and even transnational SDIs. As local SDIs are being developed, many challenges have to be overcome, such as availability, accessibility, and standardisation. In addition, there are many non-technical issues to be addressed as well, such as intransparent and restrictive licences, complex pricing structures and organizational issues. In the literature ample attention is being paid to these issues –for example, legal issues in (Janssen 2009); financial issues in (Krek 2009; Welle Donker 2009) and cultural and organizational issues in (Koerten and Veenswijk 2009). These non-technical issues seem to increase with the number of organizations involved.

The focus of most SDI research has been on the land-based geo-sector. The marine geo-sector, however, also faces the same challenges as their land-based counterparts. Access to marine data is of vital importance for marine research, such as climate change prediction or off shore engineering. However, seas and oceans do not stop at national boundaries and the collection of marine data is highly fragmented. In the countries bordering the European seas there are hundreds of scientific data collecting laboratories ranging from public sector organizations to private industry. The collected data are not easily accessible, there is little standardization and validation remains a concern. The marine geo-sector also faces issues such as complex licence agreements and pricing structures, organizational and cultural differences.

Directed by legal requirements predating the INSPIRE Directive, the marine sector has already established transnational SDIs. Examples are SeaDataNet, having established a Pan-European infrastructure for ocean and marine data

management (<http://seadatanet.org>), and the European Hydrographic Offices exchange of marine information in co-operations such as PRIMAR for developing European-wide electronic navigational charts. These SDIs appear to function successfully. Has the marine geo-sector really been successful in overcoming the non-technical challenges, and if yes, how have they achieved it? This paper will address these questions, based on an extensive case study carried out in 2010 as part of a PhD research. In particular, issues such as transparent and harmonized licences, accessibility, and availability for reuse by value-adding resellers will be tackled. Although the marine geo-sector is smaller than its land-based counterpart is, the findings of this case study may prove to be the beacon they so desperately need.

Keywords: spatial data infrastructure; case study; marine geo-sector; non-technical issues.

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