

INSPIRE – Transport Network Data

Briefing Paper for the Public Transport Coordination Group (PTIC)

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Version 1 (Issued), 9 February 2009

Abstract

The Infrastructure for Spatial Information in the European Community (INSPIRE) Directive came into force in May 2007 and must be transposed into national legislation by May 2009. INSPIRE includes themes on Transport Networks, Geographical Names and Addresses, which are relevant to PTIC.

Ordnance Survey has been actively involved in INSPIRE, particularly because of the Digital National Framework (DNF) initiative that they lead. Ordnance Survey has highlighted some key implications for the UK in terms of making available spatial datasets.

The INSPIRE Directive does not outwardly appear to have taken into account European (CEN) standards, in particular Transmodel and IPOPT, upon which the UK NaPTAN and NPTG standards (amongst others) are based. As Transport Networks is a key theme, actions need to be taken to address this issue and better coordinate the INFORM Directive, CEN standardisation process and the involvement of Ordnance Survey, Defra and other stakeholders to ensure that the UK meets the obligations of this Directive.

Actions Required

- ▶ Note the importance, current status and potential impact of the INSPIRE Directive;
- ▶ Engage Ordnance Survey more actively in PTIC;
- ▶ Coordinate INFORM Transport Networks activities with Defra;
- ▶ Transport Direct to foster greater coordination of CEN TC278 and TC211 activities with INSPIRE;
- ▶ Clarify with Ordnance Survey the positioning of the Geography Markup Language (GML) and Geographic Data Files (GDF).

INSPIRE

The Digital National Framework (DNF) (2008, pp.3-4) provides a useful description of INSPIRE. The INSPIRE Directive is a major piece of European legislation aimed at the creation of a European spatial information infrastructure within the European Community. It came into force on 15th May 2007. Although this legislation is in support of European policy on the environment, it is likely to have wider implications in terms of the way that spatial information, at least from public bodies, is made available and accessible in Europe. The European legislation has to be transposed into UK legislation by May 2009.

INSPIRE will deliver integrated spatial information services which will allow users to identify and access spatial or geographic information from a wide range of sources from local to European-wide. Some degree of interoperability using data from different sources is expected. The target users of the INSPIRE services include policy makers, planners and managers at European, national and local level but also the general public.

Services will include catalogue or metadata services to identify information sources, visualisation of information layers, overlay of information from different sources and spatial and temporal analysis. Key points in the Directive that are relevant to PTIC are:

- ▶ It applies to data held by public authorities (and certain third parties);
- ▶ It is up to individual States to create their own spatial data infrastructures (SDIs) to promote data sharing and interoperability within their own borders;
- ▶ It is aiming for compatibility within the Community and across its boundaries;
- ▶ The legislation is not about collection of new data rather about harmonisation and sharing of what exists currently within the Community;
- ▶ Network services to discover, transform, view and download spatial data invoke spatial data and e-commerce services are mandated but only at the Community level;
- ▶ Beyond the establishment of a Community portal, it is up to member states how they provide access. They may create national portals but there is no legal requirement to do so.

Ordnance Survey form part of the INSPIRE expert group and represent the UK interests on coordinate reference systems, geographical grids, addresses and transport networks amongst others. DNF (2008) assesses the implications of the INSPIRE Directive on DNF.

Implications for the UK

DNF (2008, pp. 5-6) draws out some key implications for the UK:

- ▶ INSPIRE is now in the Transposition Phase, the Directive must be transposed into the national legislation by **May 2009**;
- ▶ The UK will have to build a SDI at least to the extent it will need to make available spatial datasets for each of the themes (including Transport Networks) mandated in the Directive.
- ▶ INSPIRE will impact mainly and directly on public bodies owning or responsible for datasets relating to themes in scope of the Directive.

Defra are providing the UK lead for the Transposition Phase and there is a Transposition Project Board. Local Government Association (LGA) and the Improvement and Development Agency (IDeA) are looking at implications for local authorities.

Transport Network Data Specification

INSPIRE (2008, p. VI) defines the spatial data theme "*Transport networks*" as: "Road, rail, air and water transport networks and related infrastructure. Includes links between different networks..."

However, the Transport Data Specification makes no mention of Transmodel or the Identification of Fixed Objects in Public Transport (IFOPT), although Transmodel is the long established CEN standard and has

well founded representations for significant parts of its scope, for example public transport network elements. The INSPIRE work covers a wider non-public transport network scope and has some other useful additions to a unified transport network model.

The road specification overlaps Geographic Data Files (GDF) at an ISO level, which it references and appears to be aligned with, but with some outstanding questions:

- ▶ How does this relate to the OS ITN representation?
- ▶ What is the relative traction of GDF versus other representations?

Some further development of the fixed transport network representation in the UK was one of the gaps identified in the Transport Direct standards survey undertaken last year, so INSPIRE could be useful to assist this. ***This is relevant for UTM and other real-time ITS stakeholders.***

European Direct / European Standards (CEN)

From a CEN standards point of view it looks as there is some overlap between the Address, Gazetteer and Administrative area concepts being developed in INSPIRE and the models which IFOPT has developed to extend Transmodel's representation of Stations, interchanges and other points of travel - and to organize their distributed pan European data management. In effect, both work programs have identified the need for these ancillary elements to support their main objectives and have come up with similar but slightly different models. At the least the representations should be aligned as to terminology and concept - and could even be unified. From the UK point of view, there are certain capabilities in IFOPT that one would wish also to see in an INSPIRE model so that we can retain compatibility with existing national NPTG, NaPTAN and TransXChange datasets.

There appears to be a disconnect in the UK government involvement with standards in this area:

- ▶ Defra and the Land registry being involved in INSPIRE;
- ▶ DfT, RTIG/PTIC UTM etc. are active in Transmodel.

Given their respective starting points (geographical information systems versus transport) this is understandable, but at the layer in the middle where the different concerns meet there really should be a joined-up approach, in particular so that the different datasets can be fused to create useful applications. ***It would be worth flagging to INSPIRE that the DfT has some relevant input*** in certain areas and there should be a dialogue. ***Ordnance Survey should also continue to be in the loop***, since a primary implication is that the UK road data should be compatible with the INSPIRE model.

References

DNF, 2008. *Implications of the INSPIRE Directive*. (DNF White Paper). Available at:
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INSPIRE, 2008. *INSPIRE Data Specification on Transport Networks – Draft Guidelines*. (INSPIRE publication D2.8.1.7). Available at:
http://inspire.jrc.ec.europa.eu/reports/ImplementingRules/DataSpecifications/INSPIRE_DataSpecification_TN_v2.0.pdf

PTIC

The Public Transport Information Coordination Group (PTIC) is a community enterprise, created and operated collaboratively by ATCO, RTIG and Traveline, with the active participation of DfT Transport Direct.

Its purpose is to provide coordination on UK activities relating to the compilation and presentation of public transport information, whether to the public or for operational purposes.

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