NSDI IN THE UK

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1.   SUMMARY OF NATIONAL NSDI INITIATIVES

1.1   National Land Information Service (NLIS)

[http://www.nlis.org.uk]

The vision of a National Land Information Service (NLIS) for the UK was first conceptualised by Prof. Peter Dale at the AutoCarto London conference in 1986 and envisaged fast and easy access to an authoritative, accurate and comprehensive record of all land and property in the UK.

Over the intervening period, the Geographic Information (GI) sector has spent considerable effort in lobbying government and educating the potential service providers and customers about the social and economic benefits of implementing a NLIS. Until recently, this effort only resulted in an endless series of consultative exercises and eventually a small scale pilot project in Bristol, England to support conveyancing. However, in the past 9 months NLIS has been adopted as a *Modernising government* initiative and is now being taken forward by a partnership between the local government's Improvement and Development Agency (IDeA), the organisation responsible for creating the Information Age infrastructure for local government, and HM Land Registry. The vision is for a one-stop integrated service that will allow users access, via a computer, to various spatially related data sets.

The provision of NLIS related services are currently being procured from the private sector and are the first government services to be procured under the Channel Implementation Policies, issued with the *Modernising government* White Paper *[http://www.citu.gov.uk]*. One license will be awarded for the NLIS hub (wholesaler) responsible for the distribution of data to the three other competing licenses holders for the provision of NLIS services (retailer) to government and businesses. The licenses will be awarded in July 2000 and the launch of NLIS services by the winning license holders is anticipated to be later in 2000.

1.2   Digital National Framework (DNF)

[http://www.ordnancesurvey.gov.uk]

The Digital National Framework (DNF) initiative was launched by the Ordnance Survey (National Mapping Agency) in April 2000. The DNF provides a permanent, maintained and definitive geographic base to which information with a geospatial content can be referenced. Referencing can be achieved *directly* through National Grid coordinates, or *indirectly*, through unique identifiers. The identifiers are given to real-world features such as buildings, roads and land parcels i.e. features currently captured by Ordnance Survey in what is currently described as the National Topographic Database. The Digital

National Framework therefore incorporates the existing national georeferencing system based on the National Grid, and the National Topographic Database, as proven foundations.

The National Topographic Database will shortly be converted into a seamless database of 2,000 million separate items, including the features that better reflect the real world to form the DNF. These items will provide the «atomic units» that third parties can use to aggregate in modelling extents of their own data. Each of these DNF features will be referenced individually by a unique identifier.

It is expected that for the foreseeable future Ordnance Survey customers and partners will wish to continue to hold a copy of the topographic database, or part of it, on their own computer. It is also anticipated that the data delivery and update process will be under the command of the user to meet their operational needs. A key benefit in the seamless data approach are improvements in servicing data update.

In future this will be managed at the feature level, (or groups of features); addressing the issue of supplying just those features that have changed (i.e. change only information) which is a facility that many users have been seeking for some years. The data request mechanisms are likely to be:

- via a geographic area defined by the user and/or
- some form of feature class selection (i.e. only buildings),
- by digital identifier.

The National Topographic Database (vector based) is currently being restructured and identifiers allocated to objects. It is expected that this will be available as a product in 2002.

1.3 National Land & Property Gazetteer (NLPG)

[http://www.idea.gov.uk]

Local government's Improvement and Development Agency (IDeA) is currently compiling a database of all addressable properties in England and Wales. This is being implemented in partnership with the private sector (and does not currently involve the Ordnance Survey). A company in the private sector will be responsible for compiling and maintaining the NLPG database.

1.4 National Geo-spatial Data Framework (NGDF)

[http://www.ngdf.org.uk]

This organisation, sponsored by the stakeholders, is currently facilitating a national metadatabase and has awarded a 3 year contract to ESRI (UK) Ltd to manage the metadatabase clearinghouse facility. This will be operational in the third quarter of 2000.

2. LESSONS LEARNED IN THE UK

- An effective framework for co-operation between the public and private sectors is essential for accelerating the implementation of a sustainable NSDI;
- Governments must be briefed effectively on the value to society for investing in a NSDI;
- The NSDI message must be translated into a politically meaningful message, e.g. transportation, social exclusion, economic development;
- NSDI can facilitate the Joined Up Government agenda, but only if there is clarity in the roles and responsibilities of the public sector stakeholders;
- NSDI's may well be created more successfully from the 'bottom up' in a fragmented manner rather an idealised 'top down' fully co-ordinated approach.

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