GI Standards in the UK: A Personal View

Michael J McCullagh

GI = Geographical Information, present in the
NGDF = National Geospatial Data Framework, or perhaps now the
DNF = Digital National Framework, is a component of a
NSDI = National Spatial Data Infrastructure?
Is the end in sight?
“UK SDI Why? What? When?”
AGI Public Policy SIG Event,
6th July 2006

- one source is . . . cheating
- two sources is . . . Plagiarism
- three or more sources is . . . Scholarship

and several other sources . . .
The Challenge

- Enables significant economic, social & environmental benefits
- Provides the information requirements of the EU
- Model for voluntary participation
- Driven by the use of data not the data itself
- Can be implemented
- Supportive of the regional GI strategies
- Compatible with the UK public and private sector cultures
- Enthusiastically supported by the wide range of stakeholders
Where we are at . . .

UK GI Sector

Map Centric → Data Centric → Information Centric → Services Centric

Current Stage

Inclusion & Diffusion
1. The GI Panel aims to give high-level advice to ministers on GI issues of national importance for the UK, in particular:

- to identify the key medium to long-term GI issues and advise government through regular short reports to ministers;

- to encourage more effective, extensive and systematic use of GI, led by the example of government departments and other public bodies where appropriate;

- to facilitate a coordinated position on potential legislation, both national and international, that might impact on the GI market; and

- to promote a coherent approach to the management of GI in the UK.

2. The composition of the Panel aims to balance the interests of representing the broad GI community with being focused and able to make decisions rapidly. Visit http://www.gipanel.org.uk/.
GI Panel - Who are they?

**Government - Mostly**

- OS - Vanessa Lawrence, Director General & CEO
- OSNI - Iain Greenway, Chief Executive
- MoD - Nick Rigby, Director, Intel Collect Strat & Plans
- Dept of Com & Local Govt - Michael Kell, Dir, Anal Servs
- e-Govt - Andrew Stott, Deputy CIO & Head of Serv Trans
- DEFRA - Andrew Burchell, Chief Operating Officer
- ONS - Karen Dunnell, National Statistician
- Land Registration - James Meldrum, Keeper

**Business - Mostly**

- AGI - Simon Doyle, GDC
- ABI - Nick Starling, Director of General Insurance
- LA (SOLACE) - Cheryl Miller, Chief Exec, East Sussex
- RICS - James Kavanagh, Geomatics Faculty Manager
- Demography User Group - Michael Fishwick, Yell plc
GI & Transformational Government

• Transformational Government strategy published November 2005 by eGovernment Unit, Cabinet Office
• Implementation plan published March 2006

“The Geographic Information Panel is commissioning a UK geographic information strategy. The aims of the strategy will be to maximise exploitation and benefit from geographical information and to provide a framework to guide regional and local geographical initiatives. The strategy will be published by July 2007.”

Vanessa Lawrence, OS, June 2006
“A group of senior individuals . . . has commissioned a team of consultants . . . to assist the GI Panel to create a UK-wide GI strategy”

Vanessa Lawrence, OS Director General, Chief Executive & GI Panel member:

“A UK strategy has the potential to bring substantial benefits for the public and the private sector . . . Businesses’ applications and public web technologies can also be supported by greater consistency at the national level. Developing a UK strategy is a key part of delivering the aims of the GI Panel.”

Robin McLaren, (http://www.knowedge.com/):

“There are different strategies and initiatives at varying stages of evolution across the country, but without direction at the UK level there is a risk of divergence in key areas. There is a need for greater consistency and cohesion . . .”

2nd June 2006
Phase 1 Work Packages

- Open Stakeholder Workshop
  - Requirements
    - Information Infrastructure & Access
    - E-Government
    - Linking Other UK & EU Strategies & Policies
    - ICT / Information Interoperability

Strategic Mission, Vision, Scope / Aims / Objectives / Guiding Principles
Strategic Options Analysis
Recommended Strategic Option

Phase 2
SDI – the basic components?

- Standards
- Metadata
- Policies
- Reference Data
- Technologies
- Institutional Arrangements
Or perhaps like this?
National Spatial Data Infrastructure [NSDI]

- Coordinating Body
- Resources
- R & D
- Component GI Services
- Framework GI / Thematic GI
- Interoperability Standards
- Access Mechanism
- Social, Economic & Environmental Benefits
- GI Enabled Business Applications & Services

Robin McLaren, Know Edge, June 2006
Do we have the main components of a UK SDI?

- Technology  
- Interoperability  
- Reference Data Sets  
- Business Case  
- Organisational Culture of Sharing  
- Policies, Procedures & People
Government: The Public Policy Context

- Emphasis on service delivery “customer focus”
- Redefining the welfare state - citizen relationship
- Rebalance central - regional - local policy
- Accountability: re-engaging the citizen
- Streamlining local services coordination

Government: Some Forces for Change

- Demographics: aging, life expectancy, health?
- Migration & immigration
- Well being: citizen first
- Poor regional/ local economic performance
- Globalisation
- Climate change: behavioural modification
What we already have in the UK . . .

The DNF Roadmap

What it is:

1. DNF Model
   Incorporating:
   1.1 Basic DNF principles
   1.2 Reference Model
   1.3 Spatial/Temporal reference Model & Transformations
   1.4 Object Model
   1.5 Data Association Models

2. DNF Registry – Operational
   Incorporating:
   2.1 Identifier management
   2.2 Feature/Object catalogue and Taxonomy
   2.3 Terminology
   2.4 Measuring conformance (of a dataset against the model)

3. Supporting Guidelines
   To include:
   3.1 Metadata
   3.2 Information Quality

3.3 Information Exchange
3.4 Maintenance
   • Other Guidelines as required

06 July 2006

[Clare Hadley, OS]
SDI – the basic components

And . . . What DNF is not!

A complete SDI (it might help)
A warehouse or “one stop shop”
A solution to all GI problems

Or many other things . . .

So where can we look for a model to follow?
**INSPIRE:**
**IN**frastructure for **SPatial Info**rmation in **Eu**rope

- **Background:** Spatial information is
  - Fragmented, Duplicated, Not harmonised, Missing
  - If available it is difficult to identify, access & use

- **Targets:**
  - Policy-makers, Planners & Managers at European, national and local level;
  - Citizens and their organisations.

- **Unique 3 DG initiative – Environment, Statistics, Information**
  - Very open process of devising Directive – in Europe
  - Very difficult to arouse interest in UK
INSPiRE Principles

- Collect data once, maintain at most effective level
- Combine seamless data from different sources and share it between many users and applications
- Collect at one level of government & share with all
- Conditions of use not to be restrictive for good governance
- Discovery, evaluation and conditions of use for datasets should be easily available
Sounds good but what are the challenges?
Niall Watson, Defra, Mar 2006

INSPIRE will be built on Member States’ SDIs:
- The UK does not currently have one
- Existing initiatives could potentially contribute to an SDI

Creating an SDI requires a GI strategy:
- The UK does not currently have one
- The GI Panel commissioned a scoping study, which recommended the need for a UK GI strategy

Developing and implementing a strategy requires coordination:
- No single Government department has the lead on GI
- Need to consider co-ordination options: e-GU; OPSI?
Stakeholder Engagement?

- Key stakeholders will be invited to join focus groups to support work package activities.
- List of key stakeholders will be published.
- Wider community engages through stakeholders.

Robin McLaren, Know Edge, June 2006

- Open workshop held in Southampton (100 attended)
- 50 key stakeholders invited to focus group (23 attended)
- 18 lucky stakeholders involved in one-to-one discussions
- 10 stakeholders in interoperability workshop
- Sector invited to submit written statements
- UK GI Panel stand at AGI 2006 (September)

Written statements can be submitted to: ukgistrategy@knowedgeconsortium.co.uk

Hugh Buchanan, Secretary, GI Panel, October 2006
Thorny Questions?

- Private sector’s role is supplier, enabler or partner; not stakeholder?

- Private sector does not formulate policy; that is the prerogative of government?

- GI growth sector is not the prime policy consideration?

- Licensing models and IPR are very contentious, and

- Form a major obstacle to success of a UK SDI?
UK GI Strategy Timescales

“The Final UK GI Strategy report will be presented to the GI Panel on the 14th December 2006 by Know Edge Consortium.”

Robin McLaren, KnowEdge, June 2006

😊 At last, the beginning of an end?

So where now?
Phase 2 Work Packages

Phase 1

Information Management

Sustainable Business Model

Effective Partnerships

Business Case

Business Case

Phase 3
All Set Fair? More on Timescales & Stakeholders

USA Example: 1994 Clinton Executive Order 12906
“Create USA NSDI”

2004, FGDC published:
“NSDI Future Directions Initiative: Towards a National Geospatial Strategy and Implementation Plan”
“All” geospatial data stakeholders, including private industry, states and tribes, "by 2006" (not yet achieved); making the "framework data real" by 2007

Creation of an SDI always accompanied by:
• talk (some useful, some delaying)?
• re-inventing the wheel?
• posturing (political and otherwise)?
• in-fighting for 'control'?
• too little involvement of the wider GI stakeholder community?

Roger Longhorn, August 2006
Sad after note . . .

“Even the GI Panel themselves comment that there’s no academic representation - and that they have no plans to change this.”

. . . from a web discussion thread . . . !