

### **SDIs**

Strategies to build a central resource of spatial (geospatial, geographical) information, using the arguments:

- Mapping information is the base for most applications in government
- Many agencies produce information in different formats, scales, systems

SDIs take many forms

- Centralisation of the information (standards)
- Virtual information resource (metadata, interoperability)
- Legislation (USA) versus cooperation (UK)

SDI strategies assume linear benefits: more data, better resolution, leads to benefits to society

### **Rhetorics**

Technology as a predictable machine, not a social process

- My mobile phone is 'my' technology
- It 'behaves' uniquely
- It can be used ethically and unethically
- The makers of my phone cannot predict all the uses

Neo-futurist scenarios of informational nirvana

- But there are real needs driven by the uncertain processes of globalisation
- Terrorism
- Mobility and unknown territories
- Surveillance and safety

Microscale identification of risk – dilution of the common cause (Insurance)

Beliefs in overcoming past problems

- Sharing, Integration, Interoperable, Global agreements, Better access, High quality
- “unquestioned paradigms of change”

### **What about past infrastructures?**

'Theatrum Orbis Terrarum' Ortelius [1570s]  
The universal cartographic data base [Rentmeester 1968]  
World Data Bank II in the late 1970s [Anderson 1978]  
European CORINE environmental database built in the 1970s [Rhind & Wiggins 1976]  
Global environmental databases [Bickmore, 1985]  
Tensions about whether global data should be built by the public or private sectors [IBM, 1997]

Current initiatives therefore are best viewed as refinements of a long timeline of attempts to build regional and global data resources.

### **Complex contexts**

Statistics or Geography?  
'Clouds' of SDIs at multiple scales  
Risks of monocultures  
Risks of information expropriation – poor to rich

Lessons of failure: "Virtually every SDI vision or strategy ever published has initially grossly underestimated the resources and time scales for implementation". (Roger Longhorn)

Ownership of the SDI by government or by business?

What SDIs exist in business? Experian, CACI ... Geodemographics and Credit Referencing. Petroleum Industry.

### **The value in financial flexibility**

Avoids strategic meltdowns such as US Federal Mapping  
"Nearly 70 percent of all flood maps are more than 10 years old, according to FEMA"  
"a motivation behind The National Map vision is the need to update an ageing paper map series that is, on average, 23 years old"  
US large scale mapping is not the preserve of the USGS, but of States, Counties and Cities etc.  
These generally have well-developed charging and access policies.  
Commodification is well-established.

When comparing 'apples with apples' the US situation is one of disparate and disconnected large scale information.

### **Coordination**

US review by GAO 2004

"The government's existing strategic plan for the NSDI is out of date and does not include specific measures for identifying and reducing redundancies. Federal agencies have not always fully complied with OMB direction to coordinate their investments".

The UK situation is not a lot better

Unfortunate launch of a NGDB – Database, not concept or structure  
NGDF ... slow and bureaucratic. Suffers all the usual issues of  
Departmentalism

TIPS, TIA ... USA terrorism information infrastructures

### **Other experiences**

May 2002 [www.silicon.com](http://www.silicon.com) . The White House has increased pressure on government groups to share information across department boundaries in an attempt to combat terrorism in the aftermath of the 11 September attacks. But government policy advisors say inter-department rivalry has hindered the required IT implementation.

Henry Gibson, bank secrecy act compliance officer with the US Postal Service, said: "Departments are very territorial, internally, and with other law enforcement agencies. "If you have data that can help catch the bad guys you don't want to share it with other law enforcers for fear they will grab the low hanging fruit and catch them first," he said.

Norman Reid (USDA) said: "Sharing information is not a technical problem. We know we've got the systems. It's about building relationships between organisations that are not used to co-operating."

And ... the USA 9/11 Report

### **Debating points**

SDIs remain “Sub-optimal negotiations between risk-averse agencies (in essence a process of relationship management), and to date the scales at which SDIs operate do not threaten national information sovereignties.”

Hub and spoke; De-centralised network; Singular integration

Re-militarising potentials and ethical paradoxes

    The surveillant surge

    The disappearance of disappearance

SDIs are not new

SDIs are ‘immanent’ at present, and it will be a long time until they reach transcendence.