Session 5b: National Spatial Data Infrastructures

Mukund Rao (Indian Space Research Organisation) welcomed delegates to the workshop.

Adam Iwaniak (Head Office Geodesy and Cartography, Poland) presented the paper "Polish National Geographic Information System"
The development of the Polish GIS was outlined. Automatic generalisation between scales is the long-term aim. A metadata system is under development to allow the location of geodetic and cartographic resources. The principles of the Polish national GIS will be included in an amended geodetic and cartographic law.

Jean-Philippe Lagrange (France) asked whether database management is decentralised to regional work centres.
Adam Iwaniak replied that the land and building register is kept centrally, while other data is kept at the province / county level.

Alan Stevens (GSDI) commented that Poland have translated the GSDI cookbook for national use.

Yola Georgiadou (ITC, Netherlands) presented the paper "Are core data providers ready for the SDI?"
The paper drew parallels between "hard" infrastructure and that used for geographic information.
Much attention is being given to hard infrastructure, but less to GI.

Santiago Borrero (Colombia) asked whether the requirements and concepts of SDI will be a by-product of NMAs, or whether SDIs will be needed.
Yola Georgiadou replied that SDIs have similarities and differences with hard infrastructures. NMAs should look at ways other infrastructures justify funding and maintenance.

Ravi Gupta commented that India initially took the view that hard infrastructure could only be funded by government; 10 years later, new ways of funding are being used.

Haggai Nyapola (Kenya) noted that capacity building needs more than funding, and asked what other factors should be considered.
Yola Georgiadou replied that the cost of rehabilitating GI infrastructures needs to be understood first; capacity can then be considered.

Bryson Morebodi (Botswana) noted that GI infrastructure does not win politicians votes, while other infrastructures do.

Santiago Borrero (Colombia) noted that new avenues needed to be investigated to overcome current frustrations.

The chair observed that the relevance of any infrastructure – either physical or GI – depends on users perception. Physical infrastructures touch every citizen but how does an SDI touch citizens? When this happens, then SDIs will be as "ready" as physical infrastructures.

Doug Nebert (US FGDC) presented the paper "Establishing a global directory of services for SDI"
There is a progression of NSDI components:
- Metadata
- Downloadable data

- Data standardisation
- Web visualisation
- Service regimes
- Raw feature and raster access
- Transformation services

It is important to know which catalogues exist in different communities – then you can be confident of having full information. Metadata is needed for both services and data.

UDDI (Universal description, delivery and integration) offers a possible solution. This is a project to speed interoperability and become adopted for web services. It defined specifications for service description and discovery, and provides shared operation. It enables the description of businesses; service offerings and technical access protocols.

Publishing is achieved by:

- Creating catalogues
- Synchronising a certain amount of information with the UDDI
- Associating a service with named communities
- Allowing discovery of GSDI resources by communications and building new networks

Jean-Philippe Lagrange (France) noted that there is a continuum between data and services.

Doug Nebert agreed, and noted that work is proceeding to combine existing practice rather than developing new processes.

Jan-Peter Muller (UK) asked whether search engines like google should be made geographically aware. Even with UDDI, there is no mechanism to get information relevant to a particular location.

Doug Nebert replied that UDDI has a crude geographical taxonomy. Search engines will need to be convinced to include geography, otherwise infrerence will be needed.

Don Grant (New Zealand) felt that users may not know that translation services are needed, and that we should help them to solve problems. Many GI data users are more naïve than we would like them to be.

Doug Nebert agreed that citizen-centric solutions were vital.

Santiago Borrero (Colombia) requested comments on the technical reuquirements with reference to developing nations.

Doug Nebert replied that publishing from catalogues should be simplified, e.g. ISITE publish to UDDI. Vendors should help the implementation. UDDI would locate map services which the user then needs to investigate in more detail.