g Society

The International Federation of Surveyors (FIG) supports the current transformation process by providing a platform for networking, transfer of knowledge and sharing of innovative ideas amongst professional surveyors world wide.

FIG, through its ten commissions, focuses on specific topics within the surveying profession. Examples of the commissions work are provided in documents downloadable, from on the FIG website *www.fig.net*. These include:

- Mutual Recognition of Professional Qualifications;
- FIG Surveying Education Database;
- Hydrography in Ports and Harbours;
- Contributions to sustainable development:

Urban-Rural Interrelationship for Sustainable Development
Best Practice Guidelines in City-wide Land Information Management
Spatial Information for Sustainable Development
Land Administration for Sustainable Development

FIG cooperates closely with a number of organisations including:

- United Nations Office for Outer Space on multiple and integrated satellite systems (GPS, GLONASS, GALILEO);
- Habitat Professionals Forum;
- The Joint Board of Geospatial Information Societies;
- International Federation of Hydrographic Societies;
- UNB on Marine Cadastre;
- United Nations Working Party on Land Administration.

Four Areas

In the field of spatial information management the changes that are occurring can best be observed by considering four inter-related areas: geo-tools, geo-data, processes, and human interactions.

Geo-tools

In the past only experts had the education and training to use complex geo-tools and large organisations were required to finance the introduction of the technology. Today these tools have become pervasive and are widely used by the general public, often without them being aware of it. Handheld devices, similar to conventional mobile phones (and now becoming incorporated into mobile phones), have become capable of providing knowledge of the user's current geographic position. These tools, and the services they provide, require improved access to relevant databases. The geo-industry is now moving ahead rapidly to provide the appropriate geo-tools to support the growing availability of geospatial information. One of the largest exhibitions in Europe designed to display state-of-the-art geo-tools will take place at the FIG-conference in Munich in October 2006.

Geo-data

More and more geo-data has become available in the public arena in recent years. Within the last decade significant volumes of geo-data have been digitised creating valuable data sources. The impact of this data availability has made significant inroads into social interaction both at the individual and organisational level. The industry is currently working hard to harmonise a number of related reference systems that will ensure the interoperability user friendly data. Users will be able to combine information gathered in the field with positional information derived from GNSS-services (GPS, Galileo) and others. Today, we are already able to address some of the major user complaints by combining data associated with different reference frames and different databases.

One of the challenges to be addressed in the near future will be the transition from 'normal heights' to 'orthometric heights' where the user will find it complex to understand that physical observations of the same water level, does not mean same height. This type of example will require major marketing activities to ensure that the users really understand the complexity of the datasets involved. Without this awareness of the issues surrounding the use of some datasets, misinterpreted data could, during a period of transition to a more sophisticated society, create a potential weakness for such systems.

Processes

One of the major challenges facing the emerging spatial society is how to improve the processes associated with the wide use and availability of spatial information. In the past the general public was not particularly interested in technical issues with the consequence that decision-making was often regarded as being clouded in mystery. However, within the last decade individuals have been able to experience the benefits to be gained from improved processes such as new public management and e-government initiatives. These public sector reforms have focused public administration's attention on the citizens' interests, promoting the need for comparable services within the public and private sectors. Among the initiatives being devised to improve transparency, copyright and cost issues is EU-INSPIRE.

Modern governance requires transparency and the involvement of communities and citizens in the decision-making process. This also applies to community-based land management processes and development administration in general. Modern spatial information management tools facilitate decentralisation, community empowerment, and citizen participation, which guarantee social cohesion and a sense of belonging.

Visualisation of spatial information can, and will increasingly, be used to optimise the sustainable resources within a given framework. We have to be aware that some societies with various and diverse value systems are naturally under higher social pressure and this requires even more focus on transparent processes.

Human Interactions

A key issue is how we can introduce the improved use of geo-tools, spatial data and processes. Successful organisations tend to encourage employees to adopt common value systems which ensure that the activities of individuals are in line with the mission and vision of the organisation.

Society will think spatially without realising it. This will be the ultimate shifting of the human mindset.