

Minister Jari Koskinen,
High-Level Forum on Global Geospatial Information Management
Seoul, Republic of Korea, 24-26 October 2011

Honourable Minister KWON Do Youp, dear colleagues, ladies and gentlemen,

On behalf of the Finnish Government I thank for the possibility to participate in this first high-level forum and to introduce the Finnish experience in the area of geospatial information management. I will also speak about some European initiatives in developing the spatial data infrastructures and management.

In Finland the Ministry of Agriculture and Forestry is among other things in charge of the policy related to the national cadastre, national mapping, national geodetic system and development of national geospatial information management. In this role we have also been active in the development of the European Spatial Data Infrastructure (INSPIRE) together with our key institutes in this policy area, the National Land Survey of Finland and the Finnish Geodetic Institute.

Traditionally the term 'infrastructure' refers to the technical structures that support a society, such as roads, water supply, sewers, electrical grids and telecommunications. As a result of the more and more pervasive ICT technology we have also started to speak about IT-infrastructure and information infrastructures as new key elements supporting our societies. The emergence of the 'spatial data infrastructure' concept has been a very natural result of this general progress during the last decades.

The challenges in successful development of traditional infrastructures and the modern, often more abstract infrastructures are more or less the same:

- the benefits of the planned structures have to be clear and understandable,
- the development and maintenance must be well organised,
- the basic principles of the development have to be well defined, standard-based as far as possible and openly available, and
- sustainable funding of the often quite long life cycle of these structures has to be secured.

Politically the challenge is that we often have to invest in these new structures and services for a long time before seeing any tangible benefits. Because of these challenges, awareness and political support both nationally and internationally is crucial to sustain the development, especially nowadays when our economic situation is more difficult than normally. I am really happy about this new UN mechanism on Global Geospatial Information Management, because it provides support for us working in this policy area and helps all of us to make different stakeholders better aware of the importance of geospatial information management.

In Finland the development of geospatial information management emerged already in the late 1970s side by side with the development of the digital mapping and map production technology. The great potential of well-managed spatial databases, functioning data interoperability and shared use of the data sets was discovered already in the early phase. The first solutions for data sharing were developed in the early 1980s before the networks and internet were widely available or in use.

In our country the development of geospatial information management has been continuous and target-oriented since the 1980s. For example, national topographic maps were available in digital form in 1996 and cadastral map was fully digital in 1999. The first free map viewing service was available on the internet in 1996. The topographic data were fully harmonised in 2008.

Key organisations have been using geographic information systems for more than 20 years. For example we have now the 3rd generation of forest management planning system, which is fully based on combined use of laser scanning, aerial photography and spatial analysis.

Importance of the spatial dimension of data is well understood in operative organisations and modern services interfaces are nowadays available for all the main spatial databases. Step by step we are approaching more automatic and interactive administrative processes, for example, in real estate conveyance and cadastral transactions. In many cases this means significant investments in the quality of the key databases during the development process.

The joint European activities to promote spatial data infrastructures and Europe-wide cooperation started in the early 1990s with joint actions of the European Commission and national organisations. The regional EUROGI association was founded to foster the unofficial national and regional cooperation and development work. The process led to the creation of the European Spatial Data Infrastructure initiative (ESDI) in the late 1990s and finally to the INSPIRE Directive in 2007. Directives are the main legal instruments in the European Union which lay down harmonised obligations to all 27 Member States.

The premise of the INSPIRE is that the European spatial data infrastructure is to be built upon the national infrastructures that have been established and operated by the Member States. Five key principles represent the pillars of the initiative, which now are written down in the Directive and transposed to the legislation of the Member States:

1. Spatial data should be collected once and be stored, made available and maintained at the most appropriate level.
2. It should be possible to combine spatial data from different sources across the community in a consistent way and share them among several users and applications.

3. It should be possible for spatial data collected at one level of public authority to be shared with other levels of public authorities.
4. Spatial data should be made available under conditions which do not unduly restrict their extensive use.
5. It should be easy to discover available spatial data, to evaluate their suitability for a given purpose and to know the conditions which apply to their use.

The INSPIRE Directive is focused on environmental policy, which is one of the most important application areas in the spatial information management. However, the same reference data sets, standards, principles and technology are also applicable in many other policy areas such as agriculture and forestry.

The idea of the INSPIRE process is to support and harmonise spatial data management simultaneously on the local and national level, EU administration, and other joint European initiatives like Shared Environmental Information System (SEIS) and Global Monitoring of the Environment and Security (GMES).

Every public authority in Europe who is managing a spatial data set within the 31 INSPIRE data themes is responsible for developing and harmonising spatial data management. In practice this means thousands of organisations and tens of thousands of individual data sources.

INSPIRE will support the development of the Shared Environmental Information System (SEIS) project led by the European Environmental Agency (EEA). The project aims to create a decentralized but integrated and web-enabled, Europe-wide environmental information system. The SEIS system will partly be based on the same network of public information providers as the INSPIRE.

The EEA is also implementing a new type of 'social data website' called Eye on Earth for creating and sharing environmental information. Policy makers, environmental organizations, emergency responders, GIS professionals, communities and citizens are invited to participate in the new and dynamic online 'environmental community' facilitated by technology leaders, cutting-edge innovations and cloud technology.

INSPIRE will also support the joint EU and European Space Agency (ESA) initiative called Global Monitoring of the Environment and Security (GMES). In the GMES the users will be provided with information through services dedicated to a systematic monitoring and forecasting of the state of the Earth's subsystems. Work is done on six thematic areas: marine, land, atmosphere, emergency, security and climate change.

In Finland the INSPIRE Directive was implemented with a specific new Act on Spatial Data Infrastructure. The Act defines the responsibilities of many public authorities in managing spatial data and lays down a general obligation to share spatial data. We can well say that the whole INSPIRE process has been very important for Finland despite our long traditions in spatial data management, because it has really forced all stakeholders to get acquainted with the ideas of spatial data and spatial data infrastructures, as well as to evaluate their role in national and European spatial data management.

After the INSPIRE implementation period, the next challenge in Europe is to see that the highly sophisticated infrastructure will be used effectively from the local to the European and even to the global level. The successful building of the INSPIRE is based on strong political support within the EU and nationally. However, the use, maintenance and development of the infrastructure will demand sustained political will and support, and understanding of the potential of the spatial data infrastructures as an integral part of a modern e-government and network-based society.

Ladies and Gentlemen,

The United Nations has an essential role not only in strengthening the cooperation of the regional initiatives but also in creating the global political support for the regional, national and local implementation projects. As often mentioned, the technology is mature for global development, but in many cases the awareness of the great potential of spatial information management is not known well enough, at least by us who are working on many political fields at the same time.

There is a clear global need to coordinate and sustain observation systems, provide easier and more open data access to information and foster the use of the data sources to answer society's need for informed decision making and adaptation to the global challenges.

The Finnish Government fully supports the work of the Global Geospatial Information Management initiative, and we look forward the next steps in this process.

There are many other European organisations also present in this Forum, and I venture to say that we are all ready to support the UN Committee of Experts on Global Geospatial Information Management (GGIM) in strengthening the cooperation and encouraging stronger efforts to develop the capacity in all countries.

Thank You.