

NATIONAL SPATIAL DATA STRATEGY AND INFRASTRUCTURE DEVELOPMENT

An action plan for a Hungarian Spatial Data Infrastructure and the National Information Strategy has been discussed by expert panels for the Government for several years and especially during the past several months. Now, six years after the first US-Hungarian Symposium was held on the subject of information technology in public authorities and local governments, the Prime Minister's Office in the Hungarian government has decided to pursue the formulation of an Information Society action plan and a National Spatial Data Strategy.

One major reason given for the need to develop the National Spatial Data Strategy (NSDS) is that the gathering of mapping data is costly. Organizations in the special discipline areas of surveying, photogrammetry, global positioning systems, and remote sensing that share similar requirements for commonly needed data are wise to develop plans that accommodate joint development and maintenance programs.

In addition, the wider distribution and use of spatial data in geographic information systems and related technologies requires the development and use of standards derived through effective strategies. It also requires the application of map-based information systems professional skills and related knowledge.

The cost effective implementation of the NSDS and use of this advanced technology is important to support the widest possible dissemination of map-based data in the government administrations and other areas of the society.

Results of six preliminary studies provide a basis for the Hungarian NSDS:

- The first study focused on the macro-economic relationships. It investigated the impacts and anticipated benefits for the general administration and the private sector generated by investments in the spatial data infrastructure and use of service. Special emphasis was given to the issue of effectiveness based on investigation of larger spatial data application projects to clarify the National Spatial Data Infrastructure (NSDI) measures and actions needed to meet the requirements of the European Union and NATO accessions based. A detailed review of national spatial data strategies and infrastructures of the USA, EU, UK, and the Netherlands was conducted in this study.
- The second study analyzed the legal issues related to mapping data and map-based information with the objective to localize the legal barriers that are partly based on relevant international legal practices.
- The third study was devoted to the regulation issues. Investigated topics included data gathering, mandatory and optional tasks of the central government, the role of the local administrations in the establishment of the NSDI, promotion, and in the area of research and development. Recommendations resulting from this study identify: ways to share tasks and responsibilities between the main market players; ways to strengthen public private partnership (including outsourcing); tools and organizational actions that are needed to achieve better performance through coordination.
- The fourth study investigated spatial data management issues concerning base data sets, their production, quality, maintenance, scheduling, and financial resources needed. Further investigations included spatial data accessibility, establishment of metadata services, applicable pricing policy and the economic interests of the data owner(s).
- The fifth study targeted quality-assurance and related standards. Approved international practices and standardization efforts of European and global organisations such as CEN, ISO and OGC were analyzed.
- The sixth study emphasized the marketing and public relation issue, inevitable for widening the dissemination of the spatial data and related services. The objectives to be achieved were described as follow: raising awareness, popularization of the use of this technology as well as the development of more user-friendly and market-oriented systems, services and products.

These projects provided in-depth investigation on the present stage in Hungary and provided analyses on best practices at the international level. The goals to be achieved and alternatives for the applicable tools and methods for the NSDS have been recommended in a strategic document.

The strategic document contains a balanced system of objectives and corresponding actions that are fully in line with the implementation of the Information Society action plan. The document contains 12 strategies and 50 specific tasks to be implemented in the years leading to the planned date of the EU accession.

The document includes recommendations concerning organizational/institutional measures, tasks related to the strengthening of national, regional and global spatial data infrastructure, and activities related to the needs of the Euro-Atlantic (NATO and EU) integration.

The NSDS offers a unified structure for spatial data infrastructure based projects that are being planned, are defined, or are already implemented, such as the following:

- National Cadastre Program
- National Topographic Program
- The Aerial Survey of Hungary
- Unified, geo-referenced address registry, a solution to provide interoperability between different address based public inventories and services
- A multipurpose Parcel-based Information System primarily devoted to support agricultural, environmental and rural development related subsidies such as the integrated administrative and control system of the EU's Common Agricultural Policy.

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Key projects and content elements related to the National Spatial Data Infrastructure in Hungary co-ordinated by PMO

Action / Project	Prime actor(s)	PP Partnership	Status
National Spatial Data Policy Strategy	Prime Minister's Office (PMO)	HUNGIS Foundation, KPMG, ad-hoc	Done, waiting for revisit
Nat. Remote Sensing Centre Established in 1980	MARD FÖMI (Supported also by the Space Research Office, Ministry of Environment)	Subcontractors	Operational in crop monitoring, yield estimation, disaster mitigation support, CwRS in area-based subsidy
National Cadastral Program	Ministry of Agriculture and Regional Development (MARD), NCP PBC	NatCadastreProgram Public Benefit Co.	Operational since 1997
National Topographic Program	Mapping Service of the Home Defense Forces and DLM MARD	PBC foreseen	Overall project to be launched
Harmonisation of Geographic Address Registers	PMO and Interministerial Committee on Informatics, Working Group on GI	HUNGIS Foundation HUNAGI, GeoX etc.	Progress in applications
Administrative Boundary Database Service	Institute of Geodesy, Cartography and Remote Sensing (FÖMI)	NCP PBC, Surveyors via Land Offices	Completed, to be upgraded
National Spatial Data Clearinghouse and Metadata Service	PMO KIKERES PMO METATÉR FÖMI FISH	Scriptum Plc Scriptum Subcontractors	
Aerial Survey of Hungary and orthoph	MARD FÖMI, Ministry of Home Defence Forces,	Eurosense Hungary Ltd	Multipurpose utilisation
Multipurpose Parcel Based Information System	DLM MARD	CAP IACS AgriEnvironm	Definition phase

Status revised in December 2001