

Does your country have an SDI, and if so what stage has it reached?

**ADVANCED FUNDAMENTAL PRODUCTS
IN GEODESY AND CARTOGRAPHY (1970-1980)**

**PRIMARY SPATIAL DATA DETERMINED IN 1997
AND INTRODUCED AT GSDI3 (CANBERRA, 1998)**

CADASTRAL AND TOPOGRAPHIC MAPS,
METADATA/CLEARINGHOUSE,
PARCEL BASE REFERENCE SYSTEM, ADMINISTRATIVE
BOUNDARY DATA AS BASE FOR SERVICES,
ORTOPHOTO DATABASE, HARMONISED ADDRESS REGISTER

GI STRATEGY ELABORATION (1997-98)

INVOLVEMENT IN ISDE/INSPIRE (2001-)

SDI STRATEGY ELABORATION (2004 -)

- ★ Geodetic reference networks EUREF and UELN
- ★ Active GPS Network
- ★ National Cadastral Programme (full country coverage in vectorised form will be available in 2007)
- ★ Digitised Land Registry and Internet based service
- ★ Nationwide Land Cover (with enhanced CORINE nomenclature and 50 m resolution)
- ★ CORINE Land Cover 2000 (new survey for change analysis and mapping)
- ★ National Topographic Project
- ★ National Orthophoto Database (2000, 2005)
- ★ Area frame sampling based European Land Use Database (with enhanced resolution)
- ★ Administrative Boundary Data
- ★ Geo-referenced address register
- ★ Operational crop monitoring & yield estimation
- ★ EuroGlobalMap, EuroRegioMap
- ★ Agricultural parcel-based identification and reference system
- ★ Area-based subsidy control with remote sensing
- ★ Local SDI: support for vineyard inventory
- ★ Delineation of Less Favoured Areas
- ★ Territorial information system
- ★ Forest information and management system

- ★ Nature conservation: GIS support for National Parks
- ★ Natura 2000
- ★ Soil database
- ★ Meteorological, applications of GIS and RS
- ★ Climatological modelling, Global Change related assessments
- ★ Water Management, Hydrology
- ★ Flood mapping, logwater damage mapping
- ★ Precision farming
- ★ Location based services
- ★ Land administration incl. valuation, land use, land protection, land consolidation
- ★ Rural development
- ★ Urban and Regional planning
- ★ Urban data management and utilities related applications
- ★ Cross-border applications in transportation and environmental assessments
- ★ Natural disaster mitigation
- ★ Hazard and risk assessments
- ★ Plant health and soil conservation
- ★ Human settlements and impact analysis
- ★ Air pollution
- ★ Management of non-renewable natural resources
- ★ Advanced documentation of Cultural heritages
- ★ GIS applications in advanced learning
- ★ Civil protection and defense

<http://www.fomi.hu>

COLOR CODE INDICATES RELATION TO
 BLACK: DIRECT POLICY SUPPORT
 RED: ANNEX I BLUE: ANNEX II GREEN: ANNEX III



symbol ★ indicates the services provided by Institute FÖMI and its Remote Sensing Centre

Our role in the Hungarian Spatial Data Infrastructure



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Urban,
Regional
Planning



Research Institute for Soil Science and Agricultural Chemistry

Our role in the Hungarian Spatial Data Infrastructure



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Soil
Conservation



Geological Institute of Hungary

Our role in the Hungarian Spatial Data Infrastructure



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Geoscience



Institute of Geodesy, Cartography and Remote Sensing (FÖMI)

FÖMI and the Hungarian GI Administration



Dr. Szabolcs MIHÁLY
General Director

UNSDI Kick-off meeting
28. 09. 2006.
Budapest

Surv, Map
Cad, EO

Our role in the Hungarian Spatial Data Infrastructure



Lt Colonel István KÁD
Deputy Chief

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Home
Defense



Hungarian Meteorological Service (OMSZ)

Our role in the Hungarian Spatial Data Infrastructure



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Met
EO



Institute of Geodesy, Cartography and Remote Sensing (FÖMI)

Hungary is joining the UNSDI Initiative:
A Joint Proposal of FÖMI and HUNAGI



Dr. Szabolcs MIHÁLY
General Director

UNSDI
HUCO



Hungarian Space Office

Our role in the Hungarian Spatial Data Infrastructure



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Space
research

Our role in the Hungarian Spatial Data Infrastructure



MINISTRY OF ECONOMY AND TRANSPORT

Zsolt Sikolya
President



Ministry of Defence, Mapping Company

Our role in the Hungarian Spatial Data Infrastructure



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Topo
Mapping



HUNAGI (Hungarian Association for Geo-information)

Our role in the Hungarian Spatial Data Infrastructure



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NatGI
Assoc



University West-Hungary, Faculty of Geoinformatics

Our role in the Hungarian Spatial Data Infrastructure is
to provide professional education and training services



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Education

http://unsdihub.blogspot.com

MAJOR DRIVERS OF SDI IN HUNGARY

LAND / PROPERTY PRIVATISATION (1989 ONWARD)

ITC DEVELOPMENTS IN THE LAND ADMINISTRATION AS PART OF THE INSTITUTIONAL BUILDING RELATED TO THE EU ACCESSION IN 2004

INFORMATION SOCIETY RELATED ACTIONS, LISBON STRATEGY

USER NEEDS RELATED TO SUSTAINABLE LAND MANAGEMENT AND RURAL DEVELOPMENT eg. LAND CONSOLIDATION

DISASTER MITIGATION, THEMATIC MAPPING OF NATURAL RESOURCES AND ENVIRONMENTAL MONITORING

MEGAPROJECTS AND LOCATION BASED SERVICES

INSPIRE INITIATIVE

NOTE THE FUNDAMENTAL ROLE OF CADASTRE LAND/PROPERTY REGISTRY AND LAND MANAGEMENT RESPONSES: 1st WS ON CADASTRE IN EU + EUROGI SURVEY ON CADASTRAL GIS IN 2002-2004.

Who takes overall responsibility for moving the SDI forward

APPOINTED GOVERNMENTAL AGENCIES ACCORDING TO THE LAW ON SURVEYING AND MAPPING ACTIVITIES (1996)

MoARD(FÖMI) , MAPPING SERVICE OF THE HOME DEFENCE FORCE

e-GOVERNMENT, INFORMATION SOCIETY

FORMER MoIC, TODAY PRIME MINISTER'S OFFICE

OTHER PRIMARY THEMATIC SPATIAL DATA PROVIDERS

MET SERVICE, GEOLOGICAL SERVICE/INSTITUTE, TOWN AND REGIONAL PLANNING, ENVIRONMENTAL, NATURE PROTECTION AGENCY, FORESTRY, SOIL AND WATER MANAGEMENT AGENCIES

CATALISATOR TYPE ENTITIES: CIVIL ORGANISATIONS

HUNGIS FOUNDATION, HUNAGI, HungSocSurMapRS

HUNGARY

Some key features of the Hungarian SDI

2a 2/2

Who takes overall responsibility for moving the SDI forward

NATIONAL COMMITTEE FOR TECHNOLOGICAL DEVELOPMENT (1990s)

GRANTS, NATIONAL GIS PROGRAMME FOR THE LOCAL GOVTS

INTERMINISTERIAL COMMITTEE ON INFORMATICS/COMMUNICATION

REPLACED BY THE MoIC, REORGANISED IN 2006 (NOW: MoET, OoPM)

INTERMINISTERIAL COORDINATION COMMITTEE ON InfoSo

SUBCOMMITTEE ON STRATEGY, TASK FORCE SDI STRATEGY (NTIS)

SUBCOMMITTEE ON SATELLITE NAVIGATION

HUNGARIAN ACADEMY OF SCIENCES DIVISION GEOSCIENCE

NATIONAL DEVELOPMENT PROGRAM (2ndPHASE: 2007-2013)

STAKEHOLDERS COORDINATION BOARD ON NTIS, INSPIRE AND

UNSDI HU ACTIONS

Role of FÖMI and HUNAGI

HUNGARY

Some key features of the Hungarian SDI

2b

Who is the target audience

EUROPEAN SINGLE MARKET

GOVERNMENTAL AGENCIES

CENTRAL, REGIONAL AND LOCAL LEVEL

CITIZENS, CLIENTS OF GOVERNMENTAL SERVICES

CENTRAL, REGIONAL AND LOCAL LEVEL

ACADEMIC SECTOR

CAPACITY BUILDING, RESEARCH AND DEVELOPMENT

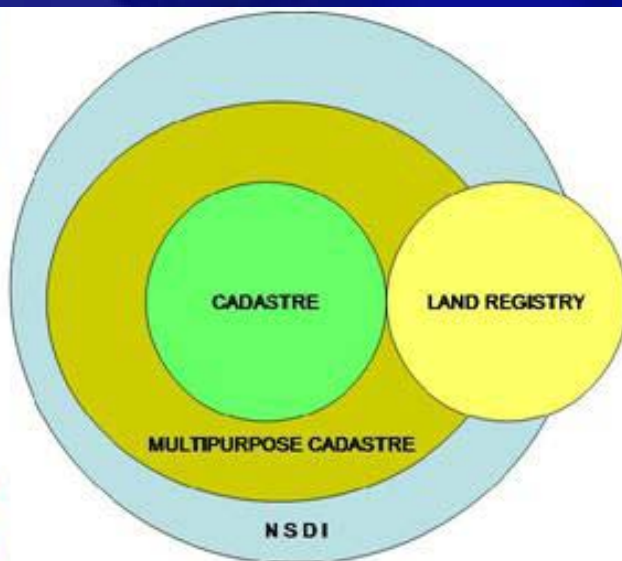
PRIVATE SECTOR

PPPs, (A CRUCIAL SEGMENT TO ENSURE SUSTAINABILITY AND BETTER EXPLOITATION OF THE RESULTS ACHIEVED)

OTHER ENTITIES

NGOs PARTICIPATORY BASED PROCUREMENTS (LAND/ENVIRONMENT)

TARGET AUDIENCE INCLUDES USERS OF LAND/PROPERTY RELATED SERVICES



LAND ADMINISTRATION IN HUNGARY: IMPACT OF AND CONTRIBUTION TO THE DIRECTIVE PROPOSAL

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UNECE WPLA WORKSHOP ON MULTIPURPOSE CADASTRE – BE INSPIRED

HELSINKI, 1-2 SEPTEMBER 2005

LAND ADMINISTRATION IN HUNGARY: IMPACTS OF AND CONTRIBUTION TO THE DIRECTIVE PROPOSAL

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INSPIRED HUNGARIAN CADASTRE

Adaption and implementation of INSPIRE and goals of the sustainable development of the service

Actions in line with the INSPIRE, PSI and the NSDI Strategy

- Harmonised spatial data specifications
- Arrangement for the exchange of data
- Possibility to combine data
- Interoperability of services
- Unique identifiers

Centralised cadastral database

Data services (uploading, metadata, discovery, viewing, downloading etc) combined with e-commerce

Object oriented handling in relational database fully integrated with the alphanumeric parts

Software support of the services (DATR+DATVIEW)

TAKARNET upgrade (e-commerce, Governmental network, meeting e-Government requirements)

Feedback to EU via LMO, SDIG, ExpG

HUNGARY

Some key features of the Hungarian SDI

2c

Approach adopted to dealing with IPR and data payment issues

IPR REGULATIONS GENERATED BY LAW

RESPONSIBILITY: MoJustice, Ombudsman on Data Protection

SUBJECT OF DISCUSSION IN RELATION OF THE EXPANDING
eCONTENT INDUSTRY

DATA PAYMENT

PRICELIST BASED

SUBJECT OF NEGOTIATIONS IN CASE OF VALUE ADDED PRODUCTS
REDUCTION FOR USE BY EDUCATIONAL INSTITUTION AND FOR R+D

THIS TOPIC BELONGS TO THE HOT ISSUES

HUNGARY

Some key features of the Hungarian SDI

2d

Main source of funding to establish the infrastructure

STATE BUDGET (SUPPORT DECREASED DRAMATICALLY IN 2006)

RESPONSIBILITY: MoFinance, MoAgriculture and Rural Development

THIS TOPIC BELONGS TO THE HOT ISSUES

INCOMES BY SELLING DATA AND VALUE ADDED PRODUCTS

FORCED RESPONSIBILITY FOR DATA, PRODUCTS AND SERVICE PROVIDERS

PARTICIPATION IN DOMESTIC AND INTERNATIONAL PROJECTS AND PROGRAMMES:

NATIONAL DEVELOPMENT PROGRAM (2007-2013)

eCONTENTplus, eTEN, i2010, GMES, GALILEO

P-P-P, P-NGO-P

THE HUNGARIAN SDI STRATEGI ADDRESS THESE ISSUES

HUNGARY

Other key feature of the Hungarian SDI

Hungary has an Organised
INTERDISCIPLINARY
Spatial Data Interest Community
(HUNAGI)



STRATEGY CONSULTANT
LOBBYIST
AWARENESS RAISER
ARTICULATE USER'S VOICE
SDIC

A grid of logos for member institutions and projects. The logos include AKI, autodesk, TARKA, and others in the top row; Cíngre, Evla GIS, Sözi, and GEO in the second row; GSI, DNI Hungary, graph IT, HISZI, and MRP in the third row; infoterra, ENVI-MGR, L&MARK, and MFTV in the fourth row; and various other logos in the fifth and sixth rows.

113 MEMBER INSTITUTIONS

46 STUDENTS

8 COUNTRYWIDE PROJECTS

LINKS TO EUROGI, GSDI, GISIG, GEO, UNSDI

SECRETARIAT AT MoARD

2e

INDIRECT LINKS WITH EUROGEOGRAPHICS/PCC
AGILE, EuroGeoSurvey, EuroSDR, EARSeL



What are/have been the main difficulties or obstacles which have encountered to date, and how are they being addressed/overcome?

**LACK OF STRONG POLITICAL UNDERSTANDING AND SUPPORT
THERE IS NO FORMAL COORDINATION AND IMPLEMENTATION
ACCORDING TO AN APPROVED STRATEGY**

RESPONSE: ELABORATION OF SDI STRATEGY
RECOGNITION AND ACCEPTANCE IS NEEDED TO ENSURE
THE INSTITUTIONAL, LEGISLATIVE, FINANCIAL,
TECHNOLOGICAL, CAPACITY BUILDING REQUIREMENTS
*THE KNOWLEDGE, COMMITMENT AND MOTIVATION ARE THERE,
THE BOTTOM UP INITIATIVES ARE PRESENT*

THE LACK OF SOUND FOUNDING

RESPONSE: LOBBYING FOR OPEN OPPORTUNITIES IN THE
NATIONAL DEVELOPMENT PROGRAM IN ASSOCIATION WITH INSPIRE
UNGIWG'S UNSDI MOVEMENT COULD GENERATE AWARENESS
IN ORDER TO SOLVE THE CATCH-22 IN DATA POLICY, CONVINCING
IMPACT STUDIES AND BEST PRACTICES ARE NEEDED

Are there any key lessons/insights which have been gained which may be useful in helping to establish or develop SDIs in developing countries?

CADASTRE AS ONE OF FUNDAMENTAL SDI COMPONENT
OPEN NEW VISTAS FOR MULTIPURPOSE CADASTRAL APPLICATIONS

CELK CENTER (till 2006), EU Twinning, FAO Consultancy, FIG, UNSDI

INTEGRATED USE OF SDI, EO AND SAT POSITIONING
IN AGRICULTURAL POLICY IMPLEMENTATION AND CONTROL,
ENVIRONMENTAL MONITORING AND
NATURAL RESOURCE MANAGEMENT

**PARTICIPATION IN INTERNATIONAL NETWORKING,
PROJECTS AND PROGRAMMES:**
EUROPEAN AND GLOBAL ORGANISATIONS, CONSORTIA

EUROGI WAG INTERNATIONAL AFFAIRS

UNSDI HUNGARIAN COORDINATION OFFICE

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Thank you for your kind attention!

LESSONS LEARNED, EXCHANGE OF EXPERIENCES

***EUROGI WAG 'INTERNATIONAL AFFAIRS'
SPLITTED BUT COORDINATED ACTIONS TOWARDS
THE MEDITERRANIAN AND THE SOUTHEASTERN
NEIGHBOUR COUNTRIES***

TO IDENTIFY THE STAKEHOLDERS
TO MAKE INVENTORY ON ONGOING SDI RELATED ACTIONS
TO BUILD UP CONTACTS
TO ORGANISE WORKSHOP
TO DEVELOPE PERMANENT BRIDGE BY NETWORKING

TO STRENGTHEN COHESION AND CONVERGENCE BY SDI
APPROACH

TO INVITE THIRD PARTIES INTO JOINT ACTIONS

NATURE OF THE ACTIVITY IS INTER REGIONAL AND
PARTLY CROSS-BORDER

DONORS ARE NEEDED
IN LINE WITH INSPIRE AND THE SPIRIT OF GSDI-11
(GSDI SMALL GRANT PROGRAMME)

Brief summary of EUROGI WAG IA actions regarding EU eastern neighbours

Actions taken in 2006

Network building methodology for identification of stakeholders and potential point of contacts country by country.

Starting formulating methodology applicable in the Neighbour countries

CEOS WGISS/WGCV Meeting organised/attended (contact with Ukraina)

UNECE WPLA Regional Meeting for Europe and Central Asia attended (contacts with Belarus, Romania, Georgia, Azerbajdzan, Armenia and Turkey) in Tbilisi

Set up of UNSDI Hungarian Coordination Office which generated interest practically from all Western Balkan Countries, the Baltics and the European CIS

FAO World Food Day attended (where contact has been made with FAO SEUR staff members. FAO SEUR's area of operation fully covers the Neighbour countries

Participation in eContentplus project proposals and consultative meeting, meetings of INSPIRE, EC GI/GIS, FIG, AGILE, PCC/EuroGeographics

Setting up comprehensive, interactive weblog in English selecting

<http://hunagi.blogspot.com>

EUROGI WAG IA actions to be taken in Europe Neighbour countries in 2007

By invitation, highlighting the idea in Athens at the FIG Commission 3 Meeting

Building a multistage network started by questionnaire, evaluation, identification of hot issues and preparation of a 2 day Workshop for the neighbour countries in Budapest (depth of implementation is subject of budget available)

Promotion as integrated part of ongoing international programmes and projects

Appropriate bodies (associations or organisations) as potential partners:

GSDI Association

DG JRC UNIT SDI

UN SDI with the Hungarian Coordination Office

UN ECE WPLA (UN Economic Commission for Europe), Geneva

UN FAO SEUR, Budapest

FAO Regional Office for Europe, Rome

EuroGeographics and PCC

Central European Environmental Center, Szentendre, Hungary

Identified National and International Donor Organisations e.g. The World Bank

EUROGI and HUNAGI members who has living business links in this area