

**THE ROLE OF GI IN THE ACCESSION  
PROCESS  
FROM THE HUNGARIAN PERSPECTIVE**



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# INTRODUCTION

THE ROLE OF GI IN THE ACCESSION  
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- **LANDS AND MAPPING SECTOR – BASE ACTOR AMONG THE INSTITUTIONS PROVIDING GI-RELATED SERVICE FOR ALL**
- **150+ YEARS OF EXPERIENCE**
- **INTEGRATED LAND REGISTRY, CADASTRE, APPLICATION DRIVEN R+D, ADVANCED GIS AND RS CULTURE**
- **FÖMI**
- **THE ORGANISED HUNGARIAN INTER-DISCIPLINARY GI COMMUNITY (HUNAGI)**

# SDI IN HUNGARY & MAJOR PLAYERS

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- **SOUND LEGISLATION (1996)**
- **GI STRATEGY (1998)**
- **DECISION ON CORE SDI ELEMENTS (1998)**
  - GEO-REFERENCED LAND REGISTRY AND CADASTRE
  - TOPOGRAPHIC MAPS
  - ADMINISTRATIVE BOUNDARY DATABASE
  - NATIONWIDE DIGITAL ORTHOPHOTO COVERAGE
  - GEOREFERENCED GEOGRAPHICAL NAMES AND ADDRESSES
  - PARCEL-BASED IDENTIFICATION AND REFERENCE SYSTEM
  - METADATA SERVICE AND CLEARINGHOUSE
- **NCP (1996- PPP) and NTP (MoD, MoARD)**
- **NPAA (1998- DLM MoARD, FÖMI)**
- **CAPACITY BUILDING (UWH Geoinformatics)**
- **CIVIL SOCIETIES (HUNGIS, HUNAGI, MFTTT)**
- **GOV'T DRIVEN OPERATIONAL PROGRAMS (TeIR, CROPMON, CwRS)**



# GI-RELATED ACHIEVEMENTS IN THE PREPARATION OF THE ACCESSION AT THE LANDS AND MAPPING SEGMENT OF THE HUNGARIAN NPAA **1**

(NATIONAL PROGRAMME OF THE ADOPTION OF THE ACQUIS)

COMPLETED TASKS (MoEWM-MoARD-FÖMI, NCP Pbc):

- LAND COVER DATABASE OF HUNGARY AT 4 HA RESOLUTION (1:50 000)
- LAND COVER CHANGE DATABASE (1990-2000) 30% NOW, 100% AT MID MAY 2004
- VECTORIZED DIGITAL CADASTRAL MAP 0,5 MHA NOW, 2,6 MHA IN 2005, 100% IN 2007
- COUNTRYWIDE AERIAL PHOTO SURVEY IN 2000,
- NATIONAL DIGITAL ORTHOPHOTO DATABASE
- COUNTRYWIDE DIGITAL ELEVATION MODEL AT 5 M RESOLUTION
- COUNTRYWIDE LPIS (MEPAR) FOR EU CAP IER + CwRS (TAMELL) FOR DOMESTIC USE
- GIS SUPPORT FOR VINEYARD REGISTER 30% NOW, 100% AT MID MAY 2004 INCL 22 REGIONS, OVER 300 VY COMMUNITIES



# GI-RELATED ACHIEVEMENTS IN THE PREPARATION OF THE ACCESSION AT THE LANDS AND MAPPING SEGMENT OF THE HUNGARIAN NPAA 2

(NATIONAL PROGRAMME OF THE ADOPTION OF THE ACQUIS)

COMPLETED TASKS (MoEWM-MoARD-FÖMI, NLF, UWH Geoinfo):

- GIS SUPPORTED LAND CONSOLIDATION PROJECT (22 SETTLEMENTS, 3 MICROREGIONS)
- LAND CONSOLIDATION STRATEGY-RELATED PREPARATORY WORKS: INSTITUTION AND CAPACITY BUILDING IN INTERDISCIPLINARY ENVIRONMENT
- NATIONAL LAND FUND ESTABLISHED AND BECAME THE LARGEST LAND OWNER WITHIN ONE YEAR
- LAND MARKET DEVELOPMENT R+D AND SERVICES: CelkCenter
  
- RS/GIS BASED CROP MONITORING AND YIELD ESTIMATION – OPERATIONAL SINCE 7 YEARS, COUNTRYWIDE, 8 CROPS 5 TIMES PER CALENDAR YEAR BASED ON SEVERAL HUNDREDS OF MAN-YEAR R+D

# THE LANDS AND MAPPING SEGMENT OF THE HUNGARIAN NPAA

THE ROLE OF GI IN THE ACCESSION PROCESS FROM THE HUNGARIAN PERSPECTIVE



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Orthophoto & DEM production  
MePAR

Orthophoto & DEM production  
MePAR

META TAKARNET TAKAROS

Acc NCadP

CLC50

VinGIS

Celk Center

## 3 year NPAA Plan

## 2 year Action Plan

July 1999      November 2000      November 2001

September 2002      September 2003

AerSurvey  
CROPMON  
TAMELL

Orthophoto production  
CROPMON  
TAMELL

Orthophoto production  
CROPMON  
TAMELL

ProMePAR  
CROPMON  
TAMELL

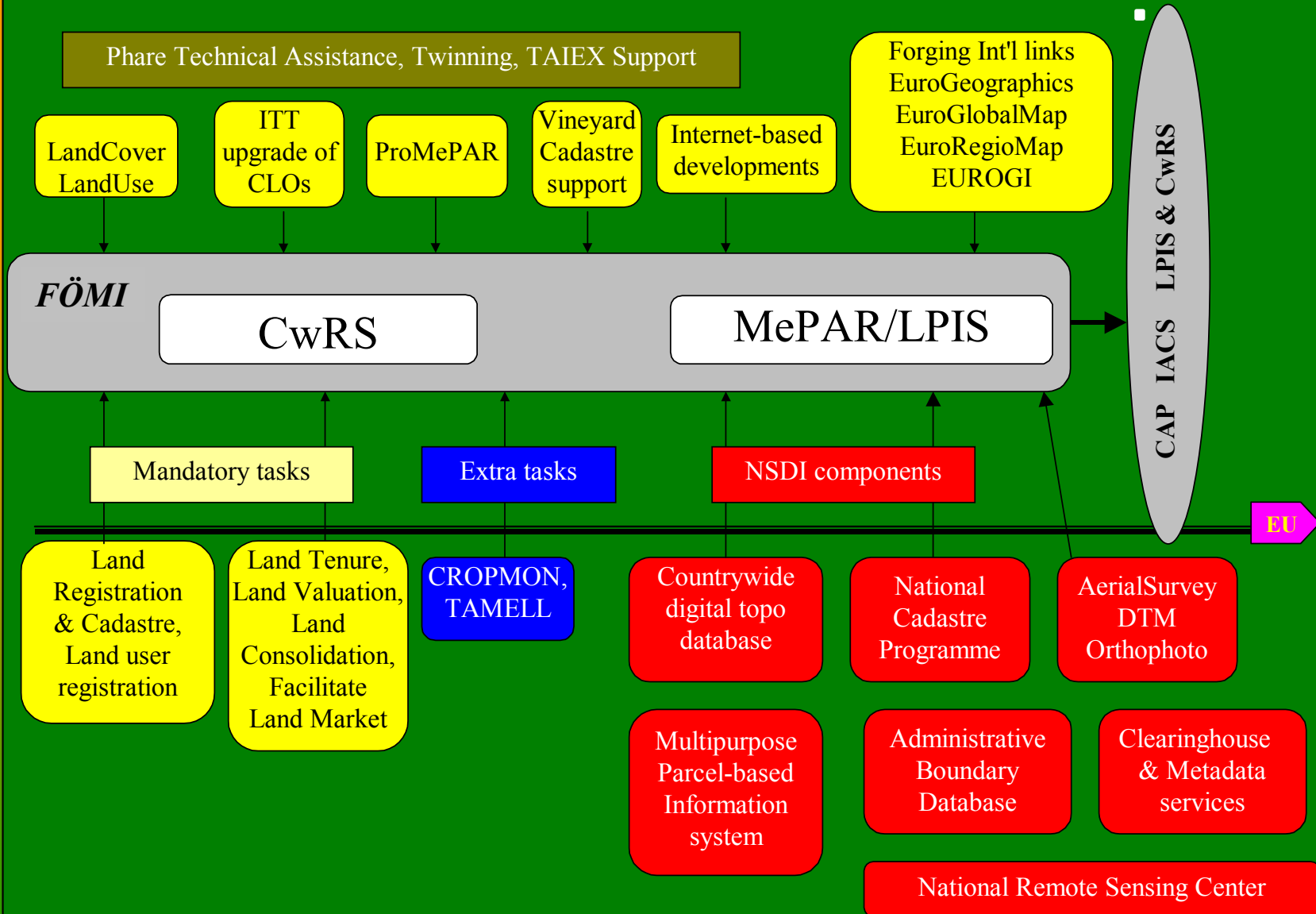
CROPMON

# THE LANDS AND MAPPING SEGMENT OF THE HUNGARIAN NPAA

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# FURTHER DEVELOPMENTS AHEAD & DRIVING FORCES

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- **ARCHITECTURAL & GI SUPPORTED ICT UPGRADE OF THE WEB BASED CAPABILITIES OF THE LAND OFFICE NETWORK**  
(ENABLING ONLINE ACCESS TO DATA AND PRODUCTS INCLUDING CADASTRAL MAPS)
- **ENABLING DM ACCURACY COUNTRYWIDE ONLINE POSITIONING CAPABILITY**
- **RAPID RENEWAL OF THE TOPOGRAPHIC MAPS AT 1:10 000**  
(USING GIS/RS PROVIDING DIGITAL PRODUCTS FOR THE WHOLE COUNTRY)
- **IN e-AGRAR**
  - **CAP IIER SUPPORT BY LPIS (MePAR) AND CwRS**
  - **GIS SUPPORT OF THE PRODUCTION, VALUE-ADDED DATA AND SERVICES FOR ALL**
  - **SUPPORT OF THE NATIONAL AGRO-ENVIRONMENT PROGRAMME AND NATIONAL RURAL DEVELOPMENT PLAN**



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# FURTHER DEVELOPMENTS AHEAD & DRIVING FORCES

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- **COMPLETION OF NPAA IN L&M SECTOR**
- **GI SUPPORTING HIGH PRIORITY APPLICATIONS**
  - **EU ACCESSION RELATED**  
SUPPORT POLICY IMPLEMENTATIONS  
FOLLOWING DIRECTIVES (e.g. EWF, INSPIRE, PSI, e-EUROPE)  
STRENGTHEN COMPETITIVENESS
  - **ECONOMY DEVELOPMENT PLAN RELATED**  
SECTORIAL, INTERSECTORIAL (e.g. VTT)
  - **CROSS BORDER APPLICATIONS**  
RETC'S INITIATIVE

# FURTHER DEVELOPMENTS AHEAD & DRIVING FORCES

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## INTERNATIONAL COOPERATIONS

**MAPPING AGENCIES** (MoARD, FÖMI, MoD)

(EU Institutions, EuroGeographics, FIG, ISPRS, ICA, IAG)

**LAND ADMINISTRATIONS** (MoARD, FÖMI etc)

(EU Institutions, EuroCadastre, UNECE WPLA, UNECE REAG, CelkCenter, EULIS, CINDER)

**GI ASSOCIATIONS** (HUNAGI)

(EUROGI, GSDI, Digital Earth, GISIG, gita)

**REMOTE SENSING ESTABLISHMENTS**

(EARSeL, EuroSRD)

**OTHER DISCIPLINES** (20+)

(GEIX, Eurocities, e-RURAL, EFITA etc.)

## INTERNATIONAL AND BILATERAL COMMITMENTS

# RECENT INSTITUTIONAL LINKS WITH EUROPEAN INSTITUTIONS

The Lands and Mapping Segment  
of the NPAA

- **EUROSTAT**

Land Cover/Land Use Working Group, LUCAS

- **DG InfSo**

IST grant GSDI6, GINIE

- **DG Envi / EEA**

Land CoverCLC 100 CLC50, CLC2000, INSPIRE ExpG

- **DG JRC**

1st EC Workshop on Cadastre, CwRS/LPIS meetings  
INSPIRE orientation & position papers, EU PCC

- **DG Research / ESA, ESOC**

ENVISAT/Earth Observation (ESA-HSO-FÖMI-HUNAGI)  
ESOC-HSO-FÖMI-HUNAGI PPP STRENGTHENING



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# GI AND THE INFORMATION SOCIETY

WORLD FORUM ON INFORMATION TECHNOLOGY & DIGITAL  
DIVIDE at the UN SUMMIT ON INFORMATION SOCIETY  
(WITH SESSION ON SPATIAL DATA INFRASTRUCTURE DEC 2003)

## LOCATION BASED SERVICES

INTELLIGENT TRANSPORTATION SYSTEMS  
LOCATION BASED SERVICES  
MAY 24-26, 2004 [WWW.ITSINEUROPE.COM](http://WWW.ITSINEUROPE.COM)

## LAND-RELATED SERVICES

CelkCenter INT'L ADVISORY AND STEERING  
COMMITTEE MEETINGS JAN 20, 2004

UNECE WPLA WORKSHOP ON „IMPACT OF EU ON LAND  
ADMINISTRATIONS ONE YEAR AFTER THE ACCESSION”  
MAY 2005: TBC

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# CONCLUSIONS

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## GI/GIS – EFFECTIVE TOOLS EU DIRECTIVES ARE NEEDED

ARCHITECTURE, INTEROPERABILITY, STANDARDS,  
METADATA SERVICES, PORTALS,  
CORE DATA AND VALUE ADDED (THEMATIC) PRODUCTS &  
SERVICES,  
CAPACITY BUILDING,  
AWARENESS RAISING,  
FINANCIAL MODELS, DATA POLICIES APPLICABLE  
RECOMMENDATIONS, GUIDELINES BASED ON BEST PRACTICES,  
MISTAKES TO BE AVOIDED

## NETWORKING AND CO-ORDINATION IS NEEDED

DOMESTIC/LOCAL  
NATIONAL/CROSS-BORDER/ REGIONAL  
EUROPEAN  
GLOBAL



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# ACKNOWLEDGEMENTS & REFERENCES

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- **DOCUMENTS OF GOVERNMENTAL AGENCIES**

- **INSTITUTE OF THE GEODESY, CARTOGRAPHY AND REMOTE SENSING (FÖMI)**

[www.fomi.hu](http://www.fomi.hu)

- **HUNGARIAN GI ASSOCIATION (HUNAGI) AND ITS 84 MEMBER INSTITUTIONS**

[www.hunagi.hu](http://www.hunagi.hu)

- **CENTRAL EUROPEAN LAND KNOWLEDGE CENTER (CelkCenter)**

[www.celk.org](http://www.celk.org)

