

### Improvement of Effectiveness – Present Developments in Hungarian Land Administration

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FIG Congress 2014 Engaging the Challenges, Enhancing the Relevance

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Institute of Geodesy Cartography and Remote Sensing, Hungary

## Hungary

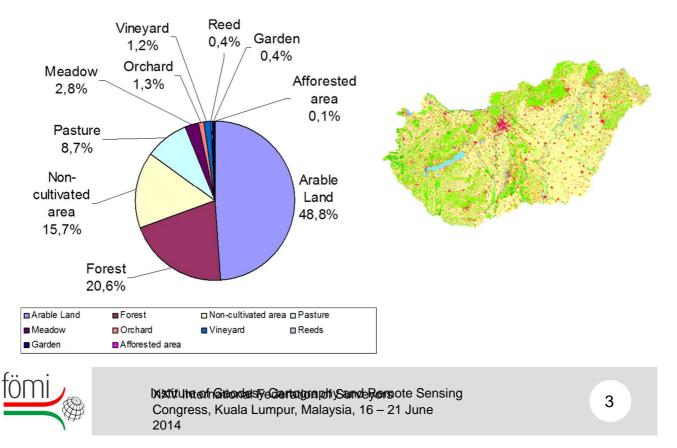


Official Name: Hungary Founded: 1 000 AD Population (2013): 9,9 million Area: 93 000 km<sup>2</sup> GPD/cap (2013): EUR 9 000 (MYR 39 700) Economy (2013): Agriculture 5% Industry 26% Construction 4% Services 65% Land Administration:

No. of Cadastral Parcels7,6 millionNo. of Condominium Units2,4 millionTotal No. of Properties9,8 million



## **Distribution of Land Use in Hungary**



# Land Administration Sector

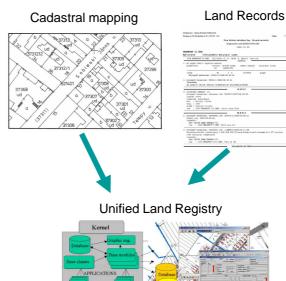
#### → Land Administration Sector: overall responsibility

- land registration (all land parcels, real estates, incl. condominiums) land valuation, use and protection, land consolidation, land lease registration
- cadastral and large scale topographic mapping
- geodesy, land surveying, remote sensing
- unified land registry and cadastre → both technically and organisationally
- infrastructure development: Land Information Systems
- → Complex, multipurpose land administration



# **Hungarian Unified Land Registry**

- In 1972 Hungary introduced a
  Unified Land Registry
- Cadastral Mapping and Land Registry integrated into one institution system (Land Offices)
- Title Registry, Hungarian State guarantees all the rights and facts recorded in Land Registry
- Development, management and operation of IT systems of Land Offices (professionally and technically) is the responsibility of the Institute of Geodesy Cartography and Remote Sensing (FÖMI)





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## **New Act on Surveying and Mapping Activities**

- New Act on Surveying and Mapping Activities came into force at the beginning of 2013
- New concept on mapping (maps->databases)
- Cadastral Map Database+Land Registry Database=Unified Land Registry Database
- Introduction State Remote Sensing Databases (terrestrial, aerial, satellite)
- "A copy of any map database product, of which production is fully or partly financed by public funds, must be provided for FÖMI, without any financial and natural compensation."
- Introduction the base of 3D Cadastre
- National Spatial Data Infrastructure
- FÖMI became the National Archive of Land Administration and Remote Sensing



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## **Improvement of Effectiveness**

- New Act has opened the door for further developments, architectures and to support sustainable future of Land Administration
- First steps are 3 projects, which initiate the foundations of further challenges
  - All projects are financed by National and European Union Funds
- The projects are:
  - On-line Service of Digital Aerial Photography Archive (DLA)
  - Integrated National Real Property Management System (INIK)
  - Establishment of Electronic Document Repository of Land Offices (DALNET24)

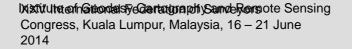


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#### **On-line Service of Digital Aerial Photography Archive (DLA)**

- Archive of Aerial Photography contains about 412 000 photographs from 1950 till now
- Activities:
  - Digitization of 4 157 Aerial Photography Plans (orientation parameters.)
  - If no plan, visual determination of parameters
  - Restoration, cleaning and scanning
  - Development WEB interfaces (5 levels):
    - Metadata service
    - Reduced resolution photo service
    - Native resolution photo service
    - Native resolution photo service with georeferencing data
    - Orthophoto production services (on ordering)
- Project covers 15% of total no. of photos
- Costs: EUR 710 000 (MYR 3 131 890)
- Duration: 1 year





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Georeferencing+Metadata

MinGX MinGX MaxGX MaxGX

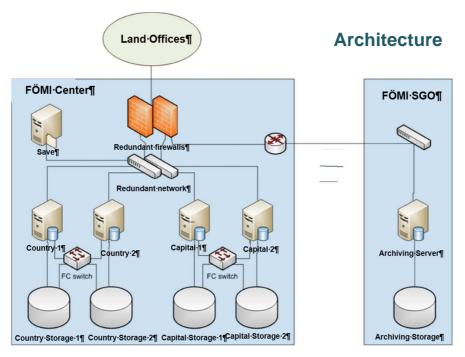
#### Integrated National Real Property Management System (INIK)

- FÖMI and National Land Fund Management Organization (NFA) established a consortium for the implementation of the project
- Objective: Provision real-time Land Registry Data for State-owned Lands and Real Properties for Land Management purposes
- Responsibilities:
  - Land Registry Services (FÖMI)
  - Management of State-owned Land and Real Properties (NFA)
- FÖMI's activities:
  - FÖMI centralizes all Land Registry, Land Leasing and Cadastral Map Databases at the institute to provide foolproof services for all State Assets Registries,
  - Central informatics support for the centralized database farm,
  - Because of the grown dataflow and data services, providing higher capacity network solutions, including hardware and software development,
  - Redevelopment of FÖMI established Land Leasing Registry IT system to ORACLE server architecture,
  - Redevelopment of Billing Software System for the optimal network operation,
  - Development of interfaces for the State Assets Registers,
  - Development of software solution for supporting fast transactions, which related to large number of properties,
  - Development of data services from all databases for licensed surveyors.
- Costs: EUR 5 million (MYR 22 056 million)
- Duration: 2 years (2012-2014)



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#### Integrated National Real Property Management System (INIK)





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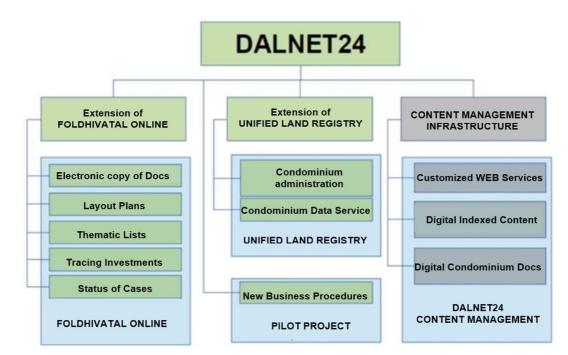
# Establishment of Electronic Document Repository of Land Offices (DALNET24)

- FÖMI successfully applied to the Establishment of Electronic Document Repository of Land Offices (DALNET24) in 2012
- Objectives:
  - Central electronic contain management by the digitization of condominium contracts and layout plans of condominiums ("cadastral map" of condominiums) (approx. 5 million pages),
  - Processing of previous files, establishment of business procedures for processing new files,
  - DALNET24 creates the foundation of further, wider-range contain management procedures,
  - Front Office services to be developed:
    - Electronic copy of files for interested people,
    - Electronic copy of layout plans, as cadastral maps, for interested people,
    - Thematic lists about condominium information (rights, restrictions, responsibilities),
    - Tracing of condominium establishment,
    - Services about the status of cases for interested people via internet.
  - Back Office services to be developed:
    - Support of Land Offices staffs in their work, based on the electronic document repository.
- Costs: EUR 5 million (MYR 22 056 million)
- Duration: 2 years (2012-2014)



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## Conclusion

- New legislation in Surveying and Mapping activities created the possibilities for further development of Land Administration in Hungary on sustainable way
- New projects in Land Administration improve the effectiveness of the sector and initiate the connection to other registries (key registries) and create the basis for more flexible procedures and technical solutions



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# Thank you very much for your kind attention

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See you at:

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