

# Comparing Turkish Land Registry and Cadastre System With Other European Union (EU) Countries System In The Context Of EU Accession Of Turkey

Dr. Mehmet ALKAN and E. CAN  
*Department of Geodesy and Photogrametry  
Zonguldak Karaelmas University,  
ZONGULDAK/TURKEY*

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## Outline

- ✓ **Current Cadastral System**
- ✓ Cadastral Information System In EU and Turkey
- ✓ Future of Cadastral System In EU and Turkey
- ✓ Conclusions

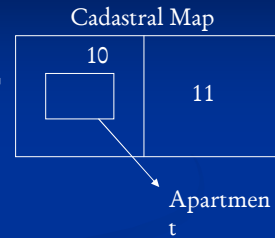
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# Current Land Title And Cadastral (LTC) Systems (Turkey)

Land Title Data : Parcel or apartment, owners, ownership rights information's.

Cadastral Data :



## Land Title Registers

Main Registers	Auxiliary Registers
Land title register (LTR)	Owners registers
Condominium register	Representatives register
Transactions register	Corrections register
Legal documents	Public owned lands register

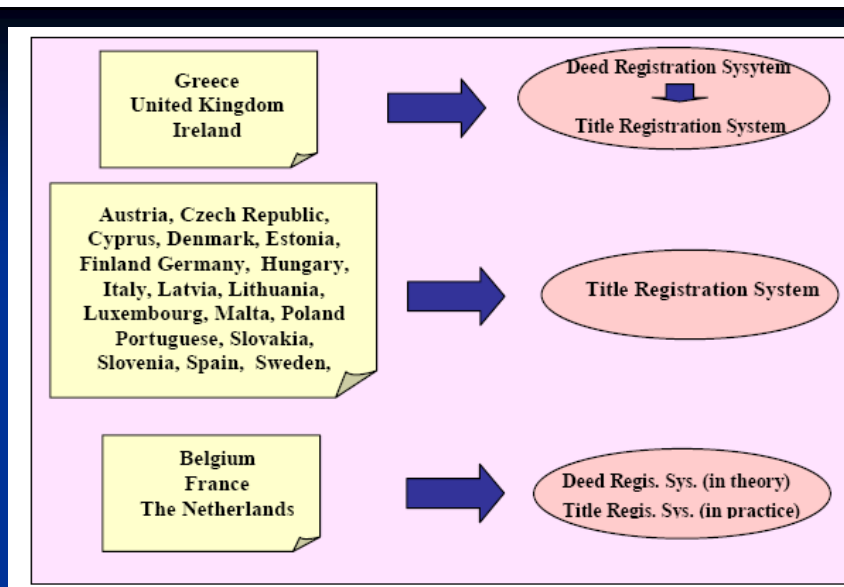


Figure : The EU Member Countries According to Land Registration System (Yavuz, 2005)

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## CIS

CIS is very important for cadastral systems. EU member of Germany and Holland was solved this problem. Germany has an ALKIS and ATKIS that is possible to make for a lot of current and temporal analyses. Holland has a CIS that is possible to make for temporal and current cadastral and land title queries.

Basic conceptual of ALK has been determined for Germany in 1970. Nevertheless applications are started in 1977 for this area. After this years generated basic version of ALK with digitizing of cadastral maps in states of Germany because of users who demanded to completely (%100) digitized of cadastral maps for a shortly time. Present time study of ALK is completed extensive of Germany. Although cadastral study on a level with state, ALK is configured one type exceptional small detail for all state of Germany for provide to reached standard structure of data for all country (Hawerk, 2003).

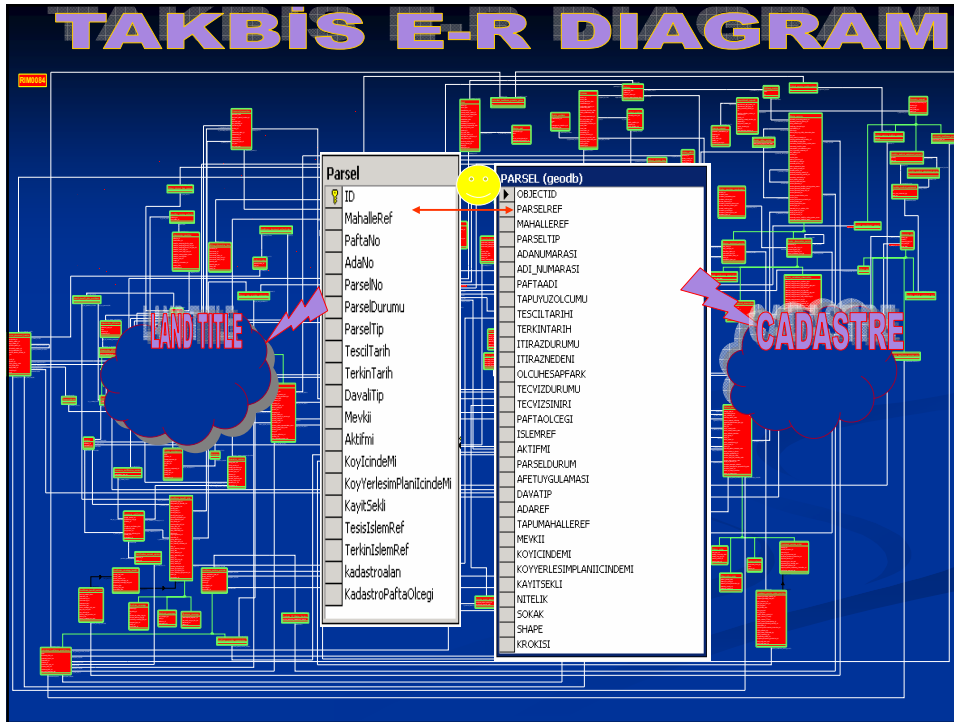
## CIS

GEO++ GIS software was improved for cadastral application in Netherlands Requirement of all cadastral data was transferred digital area between 1984 and 1999 years. However all datas were transferred into GEO++ software with was imaged database and GIS. All current and spatial analyses are done with GIS system and same time changes are added into this information system.

In Sweden, Cadastral GIS: at the National Land Survey (NLS), the term “the integrated cadastral system of Sweden” is used. This means that the whole infrastructure, the registered and presented property information (land, owners, users, houses etc.), is integrated with its geographic location. This data covers the whole nation, but is not stored in a single database. Several authorities (i.e. municipalities, taxation authorities, and NLS) maintain the database infrastructure. The cadastral data is linked with unique identities in order to work in a uniform system for

## TAKBIS (Turkey)

In Turkey TAKBIS study has been continued since 2001 in Ankara for two pilot region. However the pilot region study was completed in 2005. Presently land register information has been added into the system for base of county in Turkey. For cadastre data studies is perpetuated in pilot region in Turkey. One of the main problems for Turkey’s that extensive of countries cadastral studying hasn’t been finished and cadastral maps haven’t been digitized completely. Besides disadvantage of TAKBIS that temporal analyses are a big problem before the land registration.



## TAKBIS Project aims are;

- Providing reliable land information required for land and land-related activities and decision-makers and produced and managed under the responsibility of the TKGM.
- Analyzing the existing structure of the organization and determining the requirements for the TAKBIS system and software to be created.
- Within the frame of the determined requirements, by taking advantage of the principles and possibilities of an Integrated Information System, planning, conducting and managing the activities of the TKGM more properly, more quickly, more reliably and more effectively.
- Regulating such activities in accordance to the principles of the Geographical Information System and Land Information System, in frame of standards of OPENGIS Consortium.
- Transferring land register records and cadastral maps to a digital environment and to a database modeled and created according to the requirements of TAKBIS.
- Maintaining information updated and re-evaluating them within the scope of information technologies and offering them to the use of central and provincial units of the TKGM and other public organizations.

### TAKBIS Project aims are;

- Offering land registry and cadastral information, which is the only legal ownership base, to other institutions and organizations, in an electronic environment and as on-line.
- Providing a possibility to transform land registry and cadastral information into a Multi-Purpose Land Information Systems, through the use of such information by relevant organizations.
- Establishing the required technological infrastructure and security mechanisms.
- Installing and testing the required hardware and communications infrastructure of the project, the basic software, the developed Land Registry Application Software, Cadastre Application Software, Project Monitoring and Management Application Software and the Management Information System where the activities other than land registry and cadastral technique are automated; integrating the digitalized data within the scope of pilot applications into the system.
- Having approval of project, wide spreading TAKBIS according to

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## Future

Statement 4 on Cadastre 2014 is very considerable context of cadastre 2014. Some main advantages of new model are given below according to on basis of statement 4 on Cadastre 2014.

- ✓ Flexibility in the representation of information of the data model. Type, scale, and content of a representation can be chosen according to the needs
- ✓ The information is stored once and different products are derived from the same data
- ✓ The digital model is easy to handle, and data representing the model cannot be destroyed physically as can traditional maps
- ✓ Distribution and publication of cadastral information is easily possible with the help of the exchange of digital data models.

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## CONCLUSIONS

Concept of property is very considerable in the world. Process of infrastructure and superstructure can not be carried out without property. Context of this Cadastral information system is very important for cadastral systems in technology of present.

Deficiencies of TAKBIS are mentioned above; it should be improved for Turkey. After that geometric and attribute information of all property's registration should be completed extensive of country. Cadastral and land title data has a very large spectrum of users; legal authorities, Land Registry and Cadastre offices, Highway departments, Foundations, Ministries of Budget, Transportation, Justice, Public Works and Settlement, Environment and Forestry, Agriculture and Rural Affairs, Culture and Internal Affairs, State Institute of Statistics, execution offices, tax offices, real estate offices, private sector, local governments, banks and owners need this data. TAKBIS which is improved on account of deficiencies is very considerable for these users. Owing to this qualitative of current and previous data is acquired by users who want to provide correct, reliable and quick information and knowledge.

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