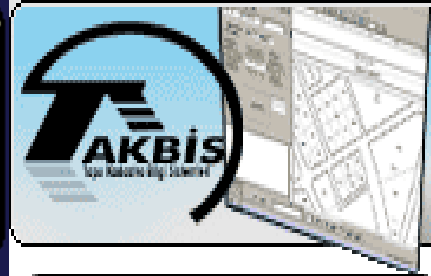




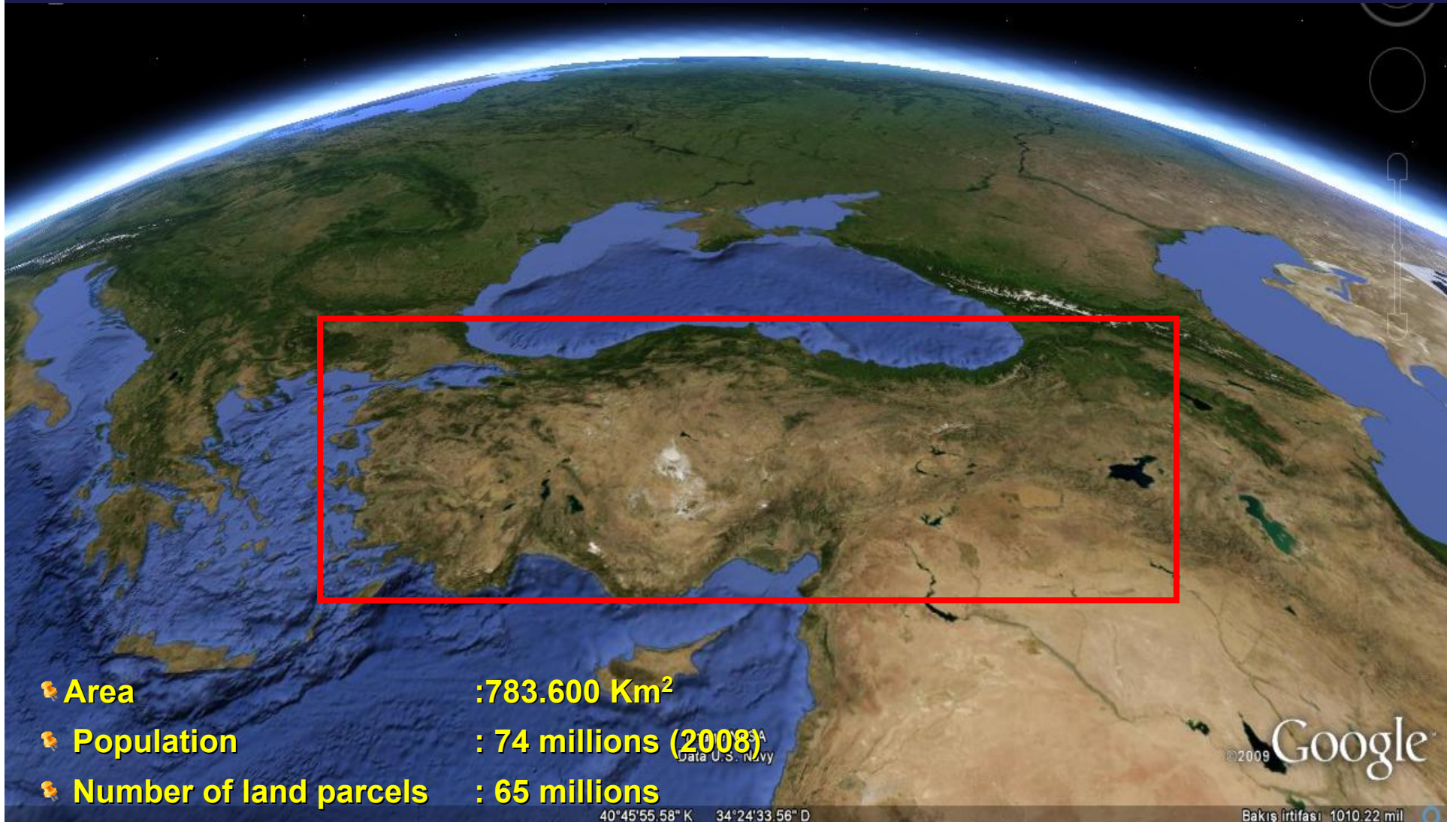
IMPORTANCE OF LAND REGISTRY AND CADASTRE
INFORMATION SYSTEM (TAKBİS) IN TURKEY



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GENERAL DIRECTORATE OF LAND REGISTRY AND CADASTRE OF TURKEY



- 📍 **Area** : 783.600 Km²
- 📍 **Population** : 74 millions (2008)
- 📍 **Number of land parcels** : 65 millions
- 📍 **Villages and quarters** : 52.681

40°45'55.58" K 34°24'33.56" D

Bakış İrtifası 1010.22 mil



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HISTORICAL BACKGROUND

- ▶ THE FIRST LAND REGISTRY ORGANISATION WAS ESTABLISHED IN 21 MAY 1847.
- ▶ GENERAL DIRECTORATE OF LAND REGISTRY and CADASTRE (TKGM) FOUNDED IN 22 APRIL 1925 WITH THE REPUBLIC.
- ▶ TKGM IS CURRENTLY TIED TO THE MINISTRY OF PUBLIC WORKS AND SETTLEMENTS SINCE 27 NOVEMBER 2002.



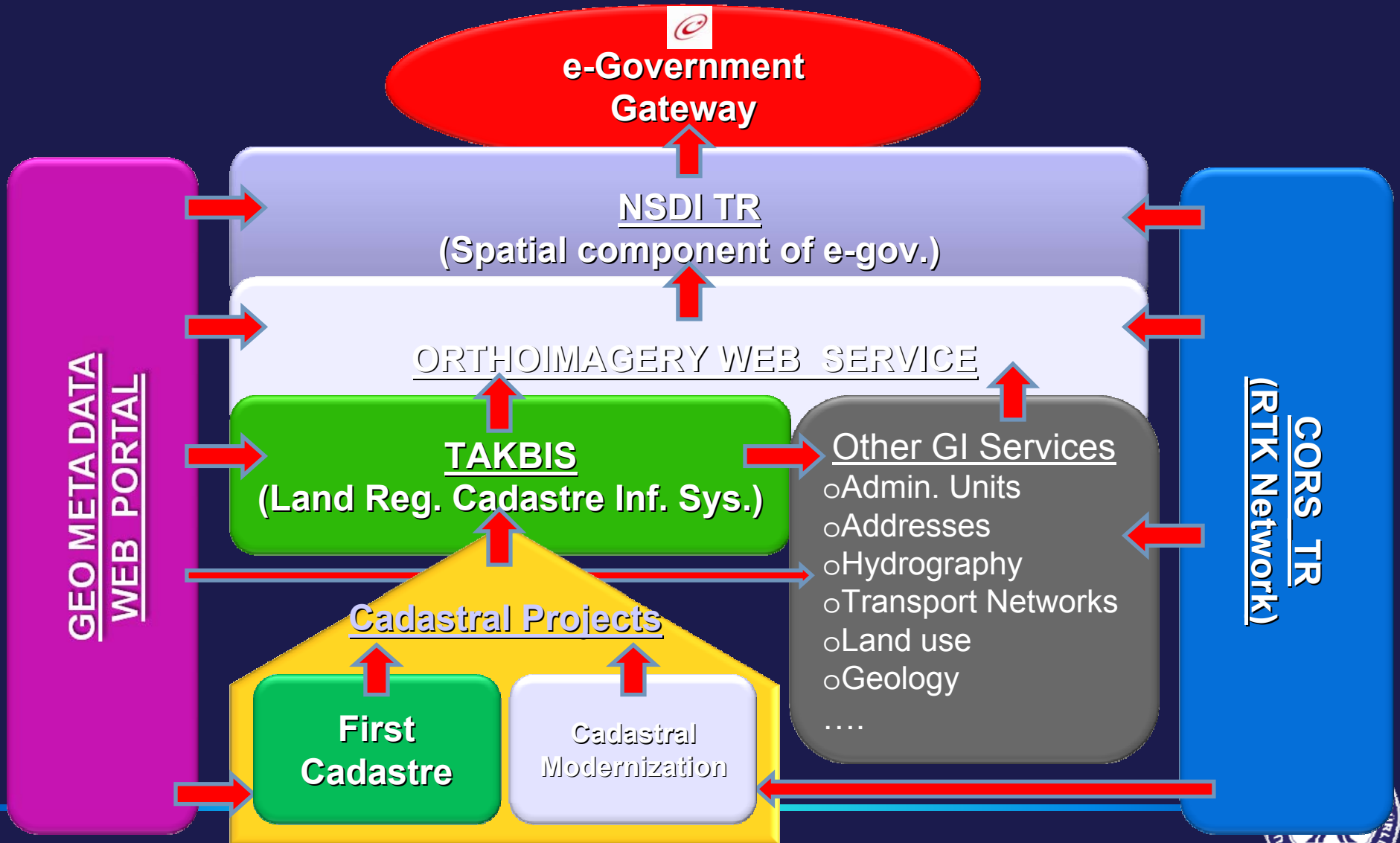
DUTIES of TKGM

- ▶ TO KEEP AND UPDATE LAND REGISTRY AND CADASTRE SYSTEM OF THE COUNTRY UNDER THE RESPONSIBILITY OF THE TREASURE,
- ▶ TO PERFORM TRANSACTIONS RELATED TO REAL ESTATE,
- ▶ TO ESTABLISH TURKISH NATIONAL SPATIAL INFORMATION SYSTEM

ANNUALLY 6 MILLION TRANSACTIONS ARE DONE AND GIVEN SERVICE
~20 MILLIONS CITIZENS



E-government projects for NSDI in TURKEY



TAKBİS (Land Registry and Cadastre Information System)

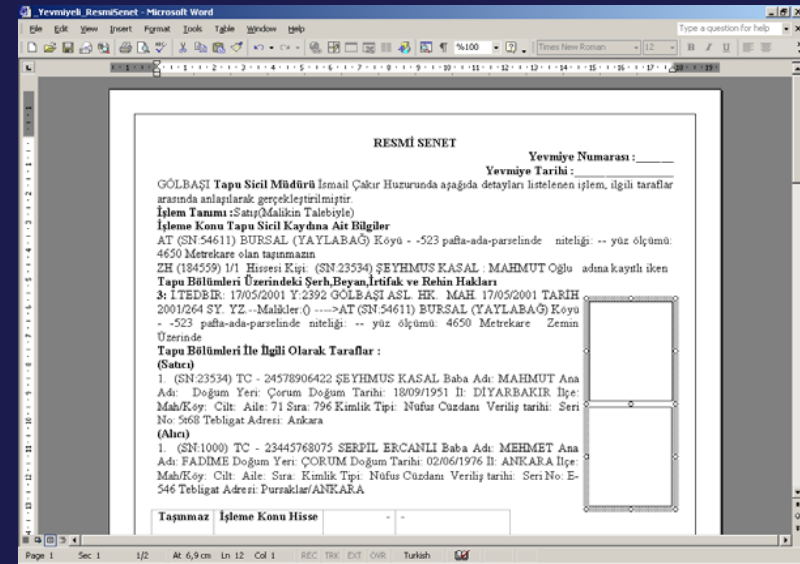
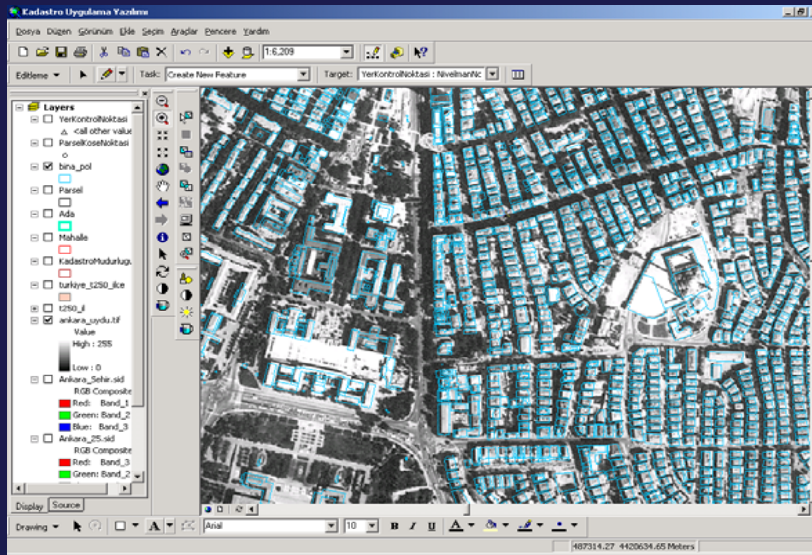
TAKBİS is a strategic e-government project. Its basic aims can be listed as:

- Collecting and integrating all required data (registry, cadastre, archive, etc.) from TKGM units,
- To start correction procedures for erroneous data after integration,
- Planning, management and supply TKGM daily services used by citizens and organizations in a more healthy, more rapid, and more reliable manner by using hi-tech tools,
- To serve collected data to relevant organizations for helping establishment of national information systems.



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TAKBIS (Land Registry and Cadastre Information System)



Pilot phase

- In the middle of 1990's TKGM decided to establish automation systems for all units and started researches and trial studies for this purpose. At the end that decade, it has been decided to use outsource progressively and technical specifications for first phase of the system have been prepared. After tender procedures, the first phase of the study started in 2001.

TAKBIS (Land Registry and Cadastre Information System)

According to the plan, in this phase, first of all, analysis of processes finished. Based on this analysis, design of the system, the choices about the operating systems, communication structure, data management systems, server types, and other relevant issues were made. Then, software for all tiers (data management, business, end user) were prepared.



While coding of software were continuing, data collection and integration processes in 6 land registry and 2 cadastre unit for trial of the software and other structures were completed.

Test and correction procedure finished, and final acceptance of the first phase was made at the end of 2004.

TAKBIS (Land Registry and Cadastre Information System)

Extension phase

The screenshot shows the TAKBIS web application interface. At the top, there is a header with the TAKBIS logo and the text "Vatandaş Bilgi Sistemi (TAPUNET)". Below the header, there is a table with columns: Zemin Tipi, Kurum / Mahalle / Köy, Parsel Zabıt, Cadd / Sokak, Kapı No, Kat No, BBNo, Arsa Payı, DMH Tipi, AT Yüzölçümü, AT Cinsi, and KM Cinsi. The table contains one row of data for a plot in ÇANKAYA 1. Bölge / GÜZELTEPE.

Zemin Tipi	Kurum / Mahalle / Köy	Parsel Zabıt	Cadd / Sokak	Kapı No	Kat No	BBNo	Arsa Payı	DMH Tipi	AT Yüzölçümü	AT Cinsi	KM Cinsi
Kat	ÇANKAYA 1. Bölge / GÜZELTEPE	#-8433-5			ZEMİN	1	##	---			

Below the table, there is a section titled "Detayları:" with a "Zemin Grafiği" button. Below that, there is a table with columns: ID, Malik Tipi, Malik Açıklama, Malik Ref, Pay, Payda, Hisse, İstirak Grup, Tescil Yevmiye, Terkin Yevmiye, zemin Ref, tapu Bolom Durum, and S. The table contains one row of data for a plot with ID 187.

ID	Malik Tipi	Malik Açıklama	Malik Ref	Pay	Payda	Hisse	İstirak Grup	Tesicil Yevmiye	Terkin Yevmiye	zemin Ref	tapu Bolom Durum	S
187	2	(SIN 2) MAHDUT MESULİYETLİ MURAT YAPI KOOPERATİFİ Vergi No: 2000099992 Sicil No:	2	1	1	1/1		Toplu Veri Sayısallaştırılması - ÇANKAYA 1. Bölge - 20/05/2002 - 3191 - 2527	Toplu Veri Sayısallaştırılması - ÇANKAYA 1. Bölge - 20/05/2002 - 5220 - 2647	171	3	

At the bottom of the screenshot, there is a legend with the following items:

- BBNo : Bağımsız Bölüm No
- DMH Tipi : Daimi Mustakil Hak Tipi
- AT Yüzölçümü : Ana Taşınmazın Yüzölçümü
- AT Cinsi : Ana Taşınmazın Cinsi
- KM Cinsi : Kat Mülkiyeti Cinsi

After successful completion of the pilot phase, the studies and procedures for extension through the units of the project was finished in September 2005 and the second phase was started.

In this phase, studies on 274 land registry and 32 cadastre offices completed.

In addition, the development of required new software realized.

Although the contract made for the second phase was finished in December 2008, extension studies performed TKGM by itself and tender studies for the third phase was done.



Completed studies

1. Software development

- a. Pilot phase (TAKBİS-I)
 - i. Land Registry end user software – TSUY
 - ii. Cadastre end user software – KUY
 - iii. Office automation software – OFOTOM

- b. Extension phase (TAKBİS-II)
 - i. Public Key Infrastructure (PKI / e-sign) establishment
 - ii. OLAP and Related reporting tools development
 - iii. Alternative cadastre end user software
 - iv. Document Management System software – DYS
 - v. Technical archive automation
 - vi. Map Information System software
 - vii. Web Mail



Completed studies

2. Extension

- a. Pilot phase (TAKBİS-I)
 - i. 6 Land registry offices
 - ii. 2 Cadastre offices

- b. Extension phase (TAKBİS-II)
 - i. 274 Land registry offices
 - ii. 30 Cadastre offices
 - iii. 22 Regional offices

- c. Extension studies by TKGM
 - i. 140 Land registry offices



Completed studies

3. System hardware and Communication infrastructure

Before starting extension phase, a new system center has been established. Although capacity of this center has been designed to serve 5000 users, by some renovations and additions, it has been serving for approximately 8000 end users.

Its establishment cost was 6.500.000 USD.

Tender studies for a new center is continuing.



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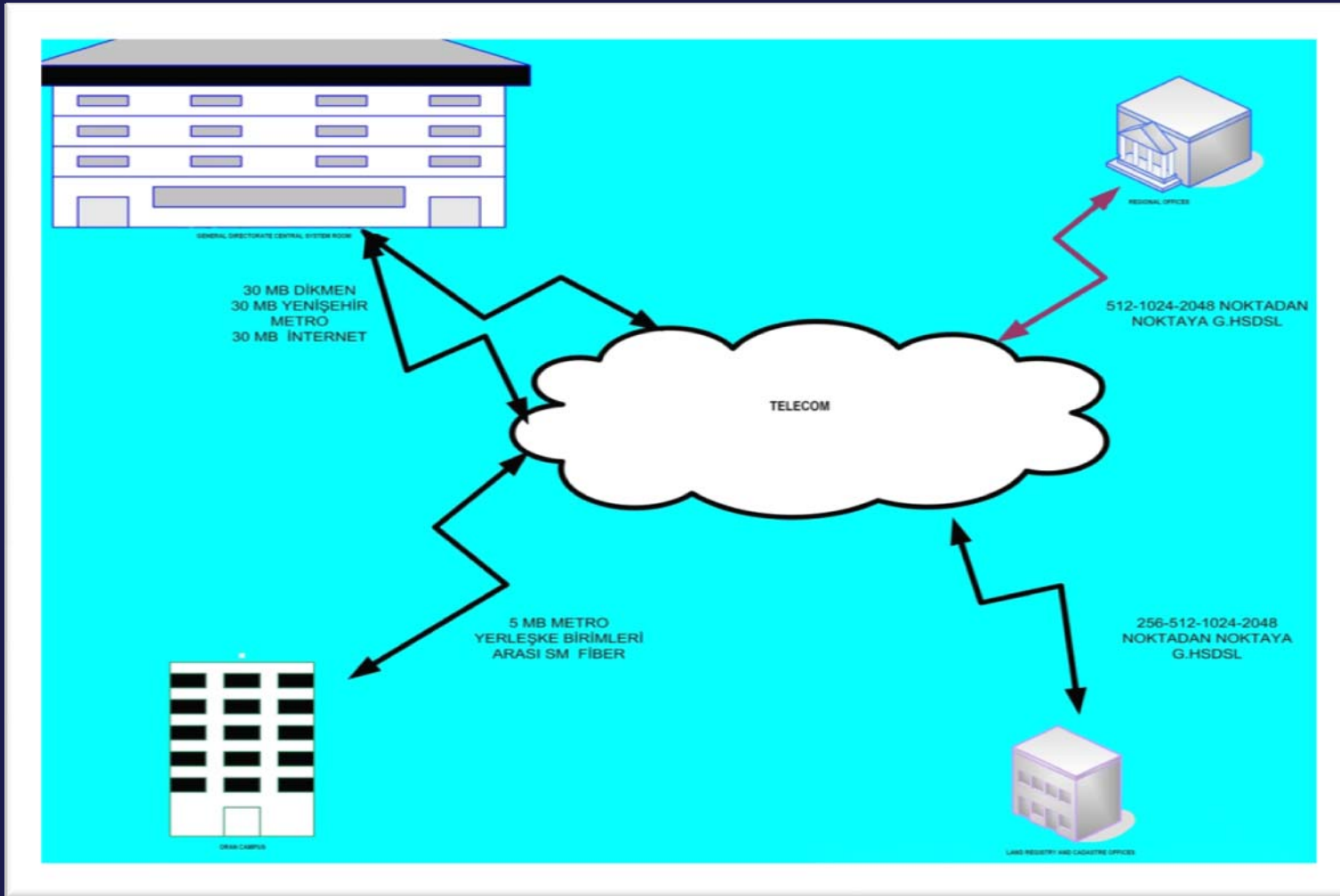
Brief description about TAKBİS infrastructure

1. DBMS : MS SQL Server (v.2005)
2. Business layer management : MS Application Server (Base on COM+)
3. Operating system for servers : MS Windows 2003 Enterprise Edition
4. Operating system for clients : MS Windows XP
5. Coding environment : Delphi 7.0 & MS .NET (Multi-tier)
6. Cadastral geo. data server : ESRI ArcGIS 9.1
7. Firewall : Checkpoint
8. Intrusion Detection & Pro. : McAfee
9. URL Filtering : Microsoft ISA
10. Routing equipments : CISCO
11. Switches : CISCO – 3COM
12. Mail Managemet : Microsoft Exchange Server
13. Anti-virus software : McAfee



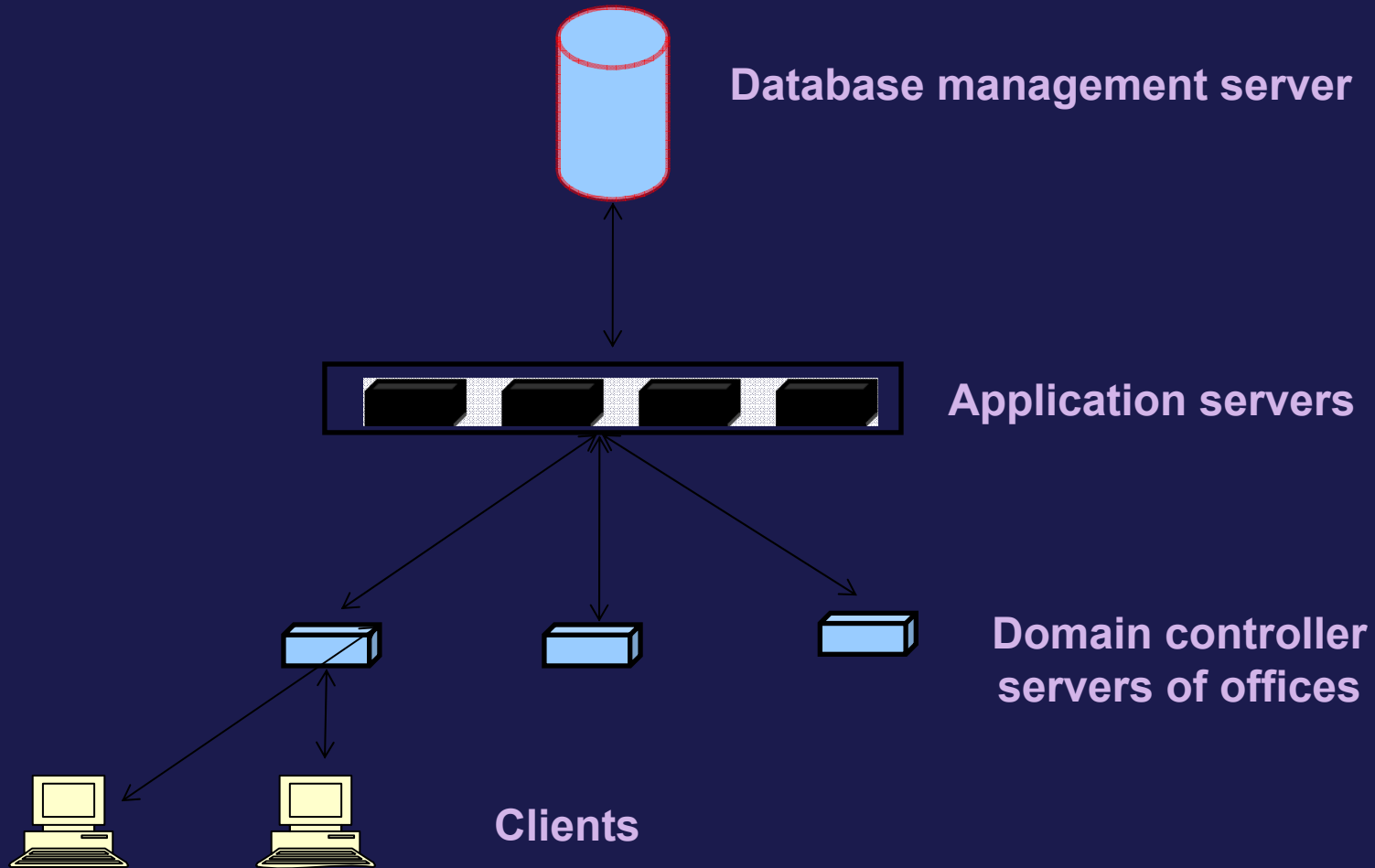
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TAKBİS communication infrastructure



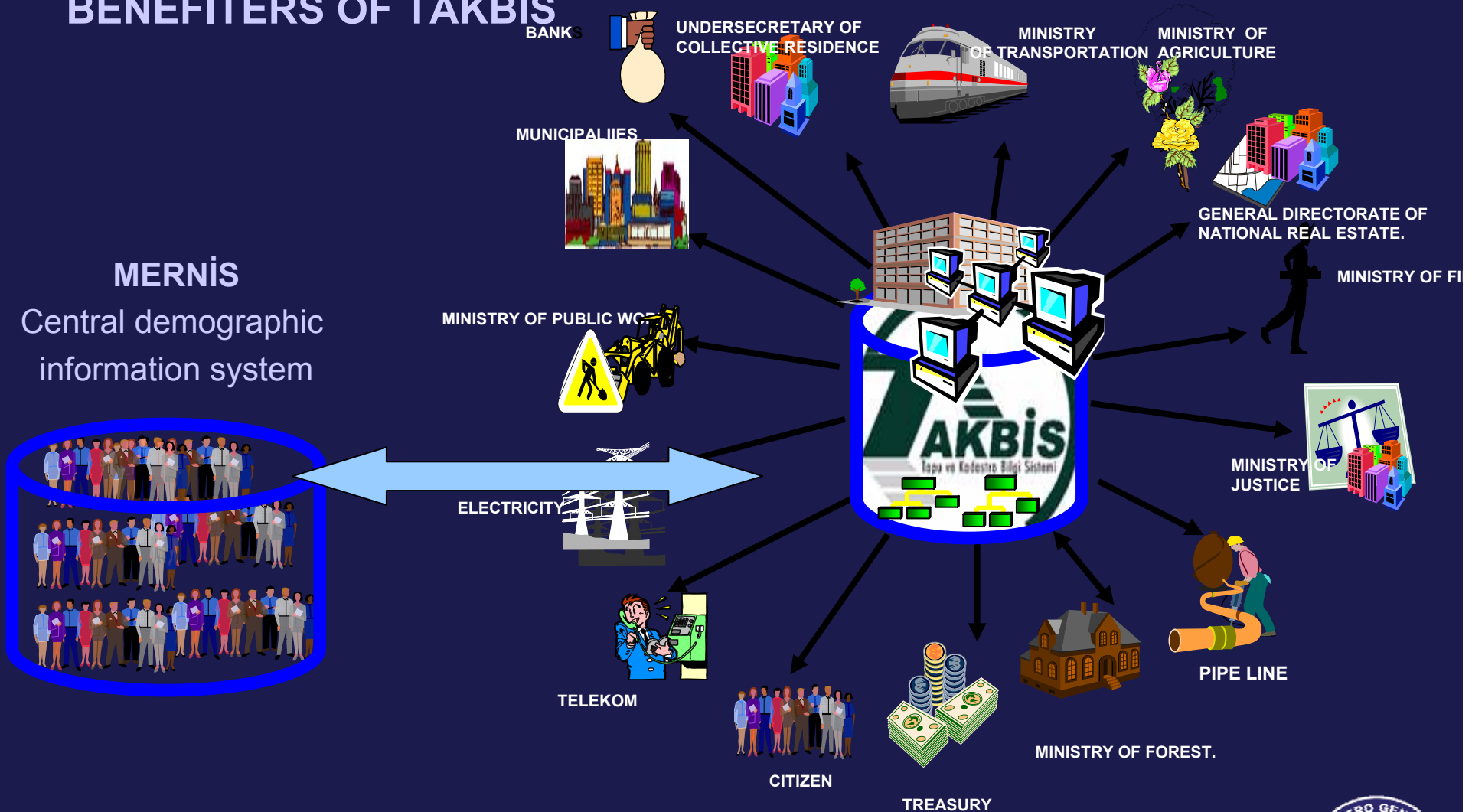
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Simple view of TAKBİS architecture



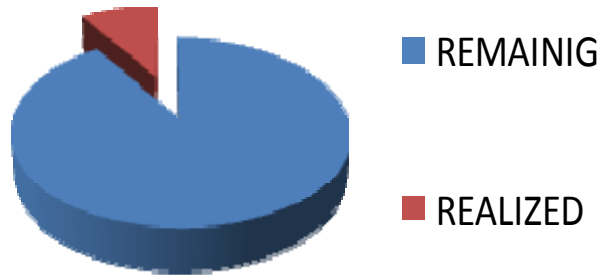
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BENEFITERS OF TAKBİS

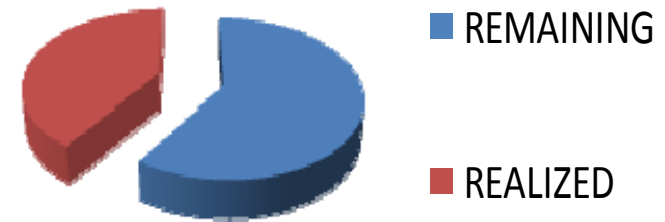


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CADASTRAL OFFICES



LAND REGISTRY OFFICES



Remaining studies

1. Approximately 600 land registry offices,
2. 300 Cadastre offices (preparing for the project by completing initial cadastre, renovation and other digitization processes)

Dissemination of TAKBİS Project will be completed in 2011.

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- TAKBİS Project was rewarded by office of prime ministry with e-government prize in 2006



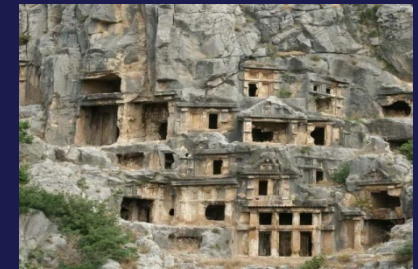


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UNECE WPLA WORKSHOP

"The role of spatial planning to improve security of tenure

The workshop will be held in **ANTALYA** in October 2010



Thank you

