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The Problems and General Evaluation of the Spatial Address Registry System (SARS) Project in Turkey

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Presentation Plan

- Introduction
- The Objectives of the SARS Project
- Problems Encountered at the SARS Project
- Recommended Solutions
- Conclusion



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Introduction

- The address is a definition to describe a spatial location with using components such as postal code, province, district, village names; neighborhood, square, boulevard, road, street names, a fixed identification number, building number.
- High Planning Council has developed Address Registration System (ARS) in order to provide standardization in addressing, regulation, implementation period and coordination between different institutions.
- National Address Database have been developed in order to providing standard address information, following components of addresses up to date and supplying public services on address registration in effective way.

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- SARS has been started by Directorate General of Civil Registration and Citizenship Affairs in order to integrate address information that verbally recorded with geographical coordinates and to integrate the created infrastructure with other systems.
- First, it has been started to apply in Beylikdüzü and Avcılar districts of İstanbul, central district and Sinanpaşa district of Afyonkarahisar, central district of Düzce and all the district of Kocaeli within the scope of the SARS project.

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- Geographical Information System (GIS) is a system that has been applied in order to carry out SARS project.



Figure 1: GIS Functions

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The Objectives of the SARS Project

- To create a more useful, efficient and space-based Spatial National Address Database,
- Establishment of an integrated system in cooperation with all authorized institutions and prevention of registering and sharing of duplicate information,
- Achieving up-to-date and standard data quality that can adapt to temporal change,
- To create systems that are understandable and perceptible by users, and
- Establishment of a standard data infrastructure that can be used jointly by local and central administrations.

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Problems Encountered at the SARS Project

- The base data that has been used during designing the SARS project consists of raster and vector data. The fact that these data are not up to date causes workload and time and cost to increase.

Table 1: Vector data and Raster data

VECTOR DATA	RASTER DATA
NEIGHBORHOOD AREA	SATELLITE IMAGES
STREET	ORTHOPHOTO
PARCEL	AERIAL PHOTOS
BUILDING	RASTER SERVICES
BASE MAPS	
ZONING PLANS	

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- In the scope of the 'Regulation on Address and Numbering', the numbering criteria have been determined.



Figure 2: Example of a suitable zoning plan

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- Turkey has different landforms due to its unique geographic location. Due to the very different constructions depending on the landforms, there is unclarity in numbering.
- The SARS project has the technical problems since it has been implemented for the first time in Turkey.
- Problems may arise during the integration phase with authorized administrations. The most important problem is the lack of a standard data model in Turkey.

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Recommended Solutions

- Current data that used will provide great convenience in terms of office and field study of the project.
- In order to provide valid, correct and long-lasting enumeration process, studies for the improvement of the development of zoning plans should be conducted across Turkey.
- The performance of field workers is one of the significant factors that affect the duration of the work and the qualified staff is very important in terms of shortening the duration of project.
- A standard data model to be used should be specified by law in Turkey.

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Conclusion

- With implementing the SARS project, it will lead to spatially administrate all the buildings across Turkey with considering spatial dimension.
- Statistical analysis can be carried out on the spatially dimensioned data, especially in case of necessity of public and civil users in emergencies, and spatial indicators can be generated.
- In the statistical analyzes to be conducted, the effect of GIS techniques on the processes will increase.

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- Address data that complied by means of Spatial National Address Database managed by different authorized administrations will be integrated into a common data model.
- Individuals will be able to provide immediate access to the data and accelerate public services.
- Current GIS and Urban Information Systems (UIS) investments will be valued and thanks to the integration between the systems, the errors related to the manager will be minimized.

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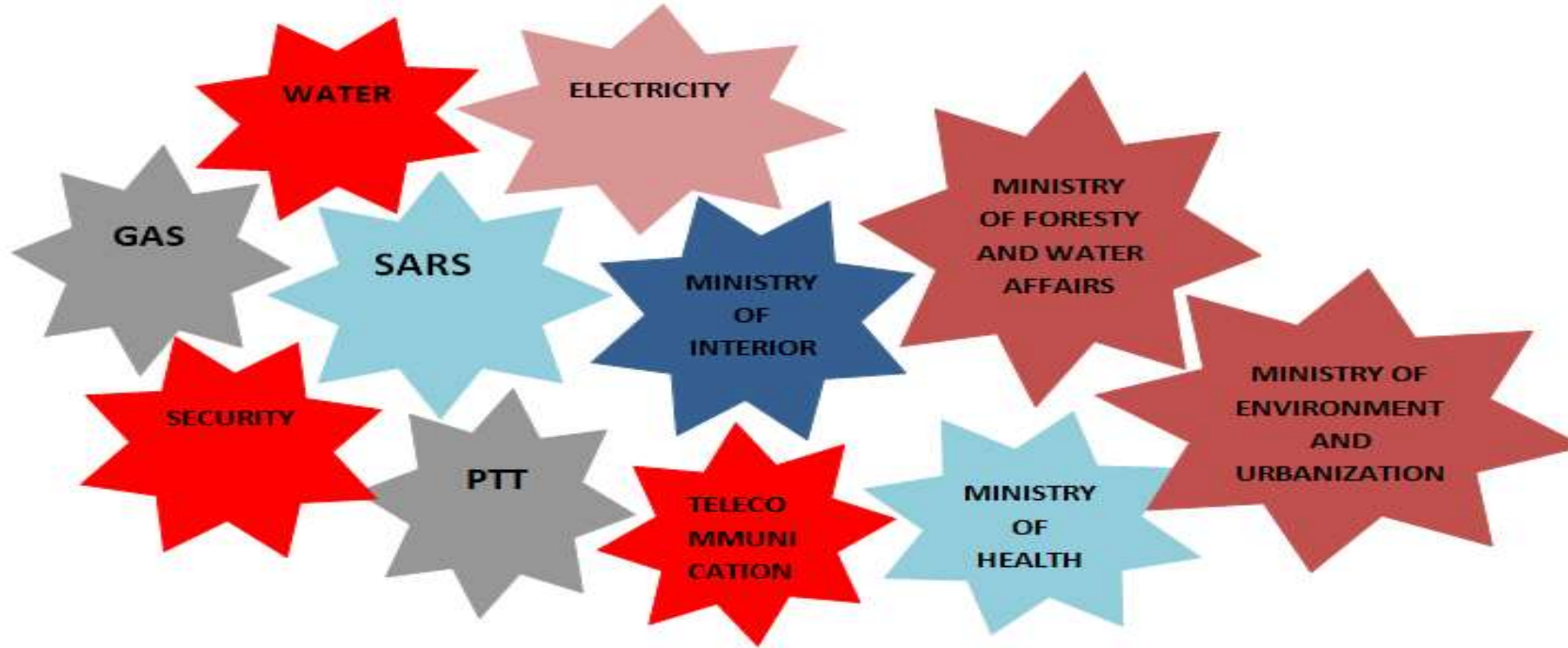


Figure 3: SARS project will form a base for these institutions

- When SARS project is implemented, the authorized administrations will replace the Address Registration System with the Spatial Address Registration System.

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