

لَا إِلَهَ إِلَّا اللَّهُ مُحَمَّدٌ رَسُوْلُهُ

بِسْمِ اللَّهِ الرَّحْمَنِ الرَّحِيمِ



The Search for SDI Model

The Saudi Experience



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- ▶ The need for NSDI
- ▶ A national GIS Concept Study 1992
- ▶ NSDI Basic Components
- ▶ Formation of the National Committee
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The Need for NSDI

- ▶ Sharing and utilizing the Geospatial data
- ▶ Cost effective
- ▶ Minimizing Efforts
- ▶ Accelerating projects and decision making
- ▶ Authorized and Unified Referenced data
- ▶ Support National Planning Development
- ▶ Eliminate duplication
- ▶ Fostering the partnerships



The Saudi Experience

- ▶ In 1992, a national GIS Concept Study was conducted by a team of national and international consultants.
- ▶ The study recommended the following:
 - Formation of a national committee for Geographic Information
 - Implementation and development of the new national Organization for Surveying and Mapping
 - Development of the User Network
 - Development of national Interfaces
 - Development of national Standards



The Saudi Experience

- ▶ The study also recommended the following transition phases:
 - Design Phase
 - Implementation Phase
 - Operation Phase

But due to the shortcomings in the basic NSDI components

And high estimated cost, could not be implemented at that time (1992).



NSDI Basic Components

- ▶ Policies and Institutional Framework
- ▶ Technological Framework
- ▶ Standards & Specifications
- ▶ Geospatial Data
- ▶ Qualified Human Resources

Polices and Institutional Framework



- ▶ Committees and Formation of Institutions
- ▶ Creating Legislations
- ▶ Establishing Policies
- ▶ Fostering Partnerships



Technological Framework

- ▶ Hardware
- ▶ Software
- ▶ Networks
- ▶ Applications
- ▶ Services
- ▶ Portals
- ▶ ...



Standards & Specifications

- ▶ Unified geodetic reference system
- ▶ Cataloguing
- ▶ Metadata
- ▶ Developing Profiles for the ISO/TC211 Standards
- ▶ ...



Geospatial Data

- ▶ Nationwide Multi-Scale Datasets
- ▶ Seamless Integrated Geospatial Data
- ▶ Digital Products
- ▶



Qualified Human Resources

- ▶ Human Resources Development
- ▶ Qualification
- ▶ Certification
- ▶ Training
- ▶ ...



The Situation was :

- ▶ Duplication
- ▶ Different standards and specifications
- ▶ Different systems
- ▶ Unconsequent data
- ▶ High operational costs
- ▶ Lack of information linking
- ▶ Lack of coordination and collaboration
- ▶
- ▶ ...

Formation of the national Committee



A Royal Order was issued On 2003 to form the NSDI Committee, membership of the relevant authorities in order to:

- Set the general principles and identify the national requirements for the NSDI.
- Develop the required strategies for the NSDI



Subcommittees

The National Committee formed the following five Subcommittees:

- Geospatial data Subcommittee
- Network Subcommittee
- Standards Subcommittee
- Policies and Institutional Framework Subcommittee
- Financial Subcommittee



The achievements

- ▶ Collecting comprehensive information of all standards and Geospatial data available in the government agencies .
- ▶ Identifying the key partners of NSDI.
- ▶ The adoption of the (ISO / TC 211) standards by SASO.
- ▶ Coordinating with the E-Gov. Program to take advantage of the capabilities and infrastructure for e-gov. program.
- ▶ Enhancing the geodetic reference system(vertical and horizontal) used in the KSA.
- ▶ Developing policies and regulations for the NSDI.
- ▶ Preparing the TOR for the implementation of a pilot project.

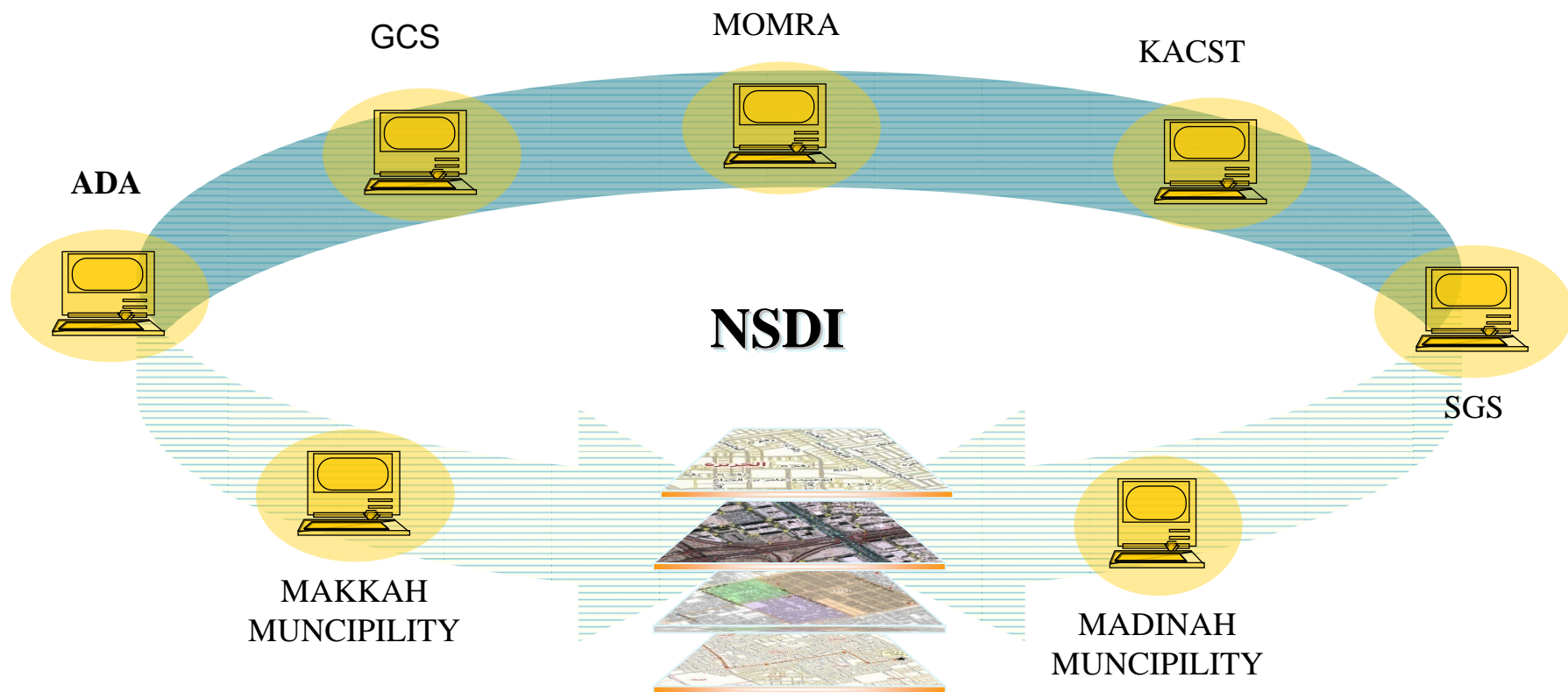


Pilot Project

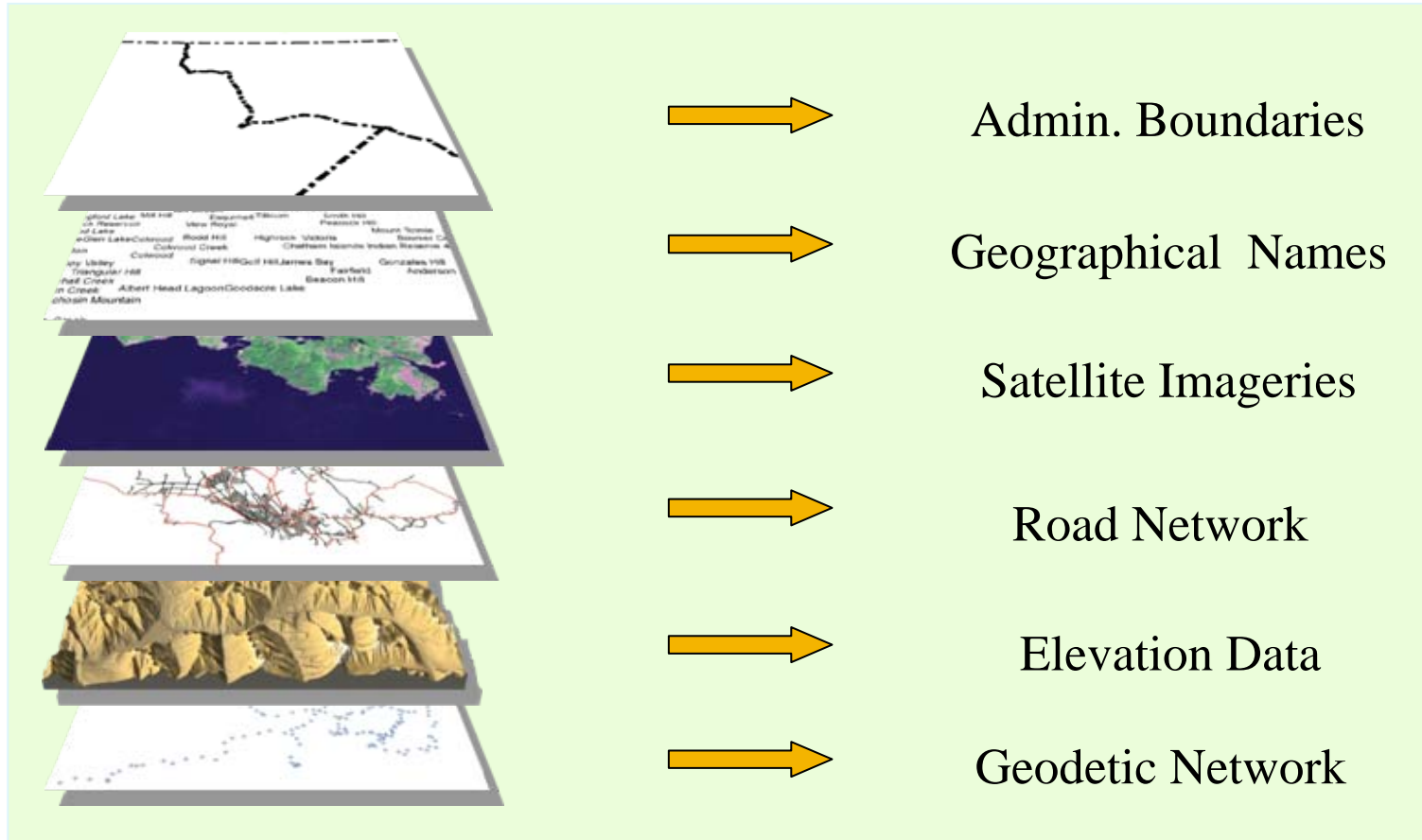
- ▶ Linking four Organizations at the national level, three at the regional level, and three cities at the municipality level.
- ▶ Developing the required mechanisms, technology, and management for the NSDI.



Pilot Project Digram



Geospatial data





Obstacles

- ▶ Difficulty of coordination between organizations
- ▶ Difficulty of developing national standards
- ▶ Overlapping and conflicting obligations of some government organizations.
- ▶ Geospatial data Copyrights

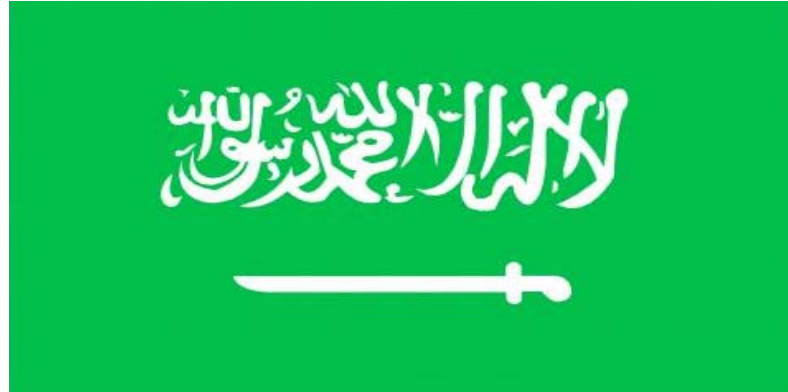


Conclusion

- ▶ Study came from Saudi Experience.
- ▶ Federal committee or neutral agency to regulate and administrate NSDI.
- ▶ Encouraging the Stakeholders is the key for success of Establishing NSDI.
- ▶ Commitment of Copyrights for partners.
- ▶ Quick wins important to Encourage others for participation in NSDI.
- ▶ Defining roles and responsibilities for each partner.



Thanks for your Attention



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