THE FUTURE OF GEOPORTAL COMPONENTS: AN EVALUATION FOR TURKEY

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Content

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- Concepts and Approaches

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  - Development Timeline of the Geoportal
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Geoportal Definiton

Geoportal is "a human interface to a collection of online geospatial information resources, including data sets and services"*

Geoportals are "gateways to geographic content and capabilities" **

*Open Geospatial Consortium (OGC, 2004),
**Maguire and Longley (2005)

Concepts and Approcahes

SOA and Web Services

Spatial Based Web Services

Human Oriented Architecture

Data Integrity/ Intereporability (INSPIRE)

Spatial Data Infrastructure

Metadata and Geographic Metadata

Development Timeline

Development of Geoportal Idea
- Catalog, Application, Enterprise Geoportals

Provide Some Principles
- accuracy, speed, simplicity/ease of use, interoperability and integration

Subject Specific Studies
- socio economic analysis, environmental monitoring, remotely sensed data…..

Future ?
- New Technologies ? & Concepts
  - Cloud Computing
  - Big Data
- New Components ?

World Examples

World Examples Highlights

- **INSPIRE Geoportal**
  - Interoperability
  - Common Data Infrastructure
  - GeoRM
  - E-Government
- **United States Geoportal – GeoPlatform**
  - Circular No A-16 Theme Standards
  - Market Place
  - E-Government
  - API
- **Group on Earth Observations Geoportal – GEOSS**
  - World Wide Data Integration
  - Combine Different Source to Single Interface
- **France Geoportal – Geoportail**
  - Navigation Features
  - 3 Dimensional Data Visualization
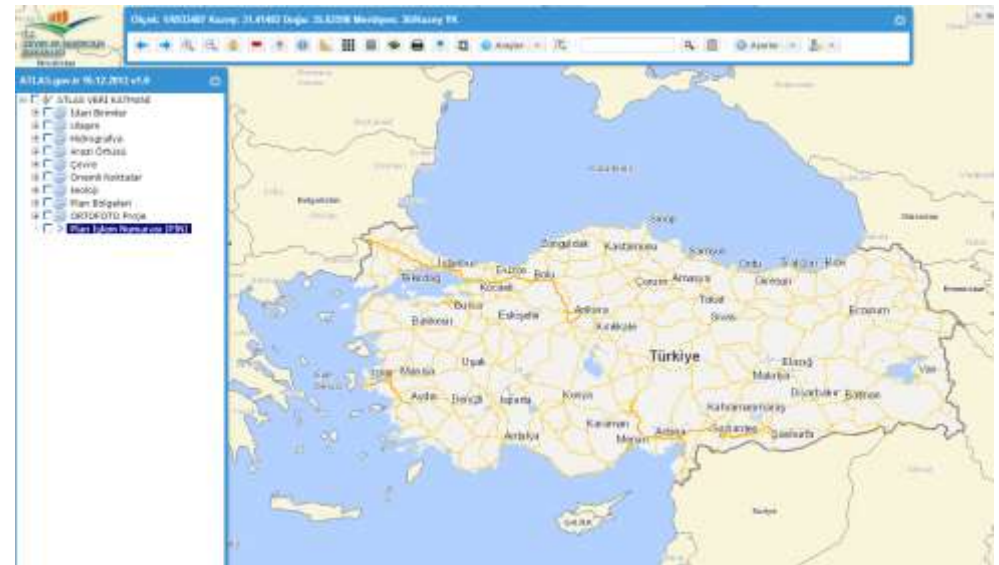 - API

Situation in Turkey

- **Previous Geoportal Application**
  - Developed by Ministry of Environment and Forestry
    - Data Search and Download (different data format)
    - Metadata Management
    - Interactive Map View
    - User Management
    - INSPIRE Compliant Data Themes

- **Turkey Geoportal**
  - Being developed by responsible organization

Survey

- **Aim** (human oriented perspective)
  - understand user interests in Turkey
  - matching user needs and recommended Geoportal components
  - to determine the present and near future Geoportal components according to the technical requirements and user needs

- **Preperation of the Questions**
  - literature review, analysis of world examples and projected components and recent technological developments

Survey Framework and Methodology

- 3 Prelimanary Questions
  - Experience
  - Geoportal Relations
  - Sector

- 26 Technical Questions
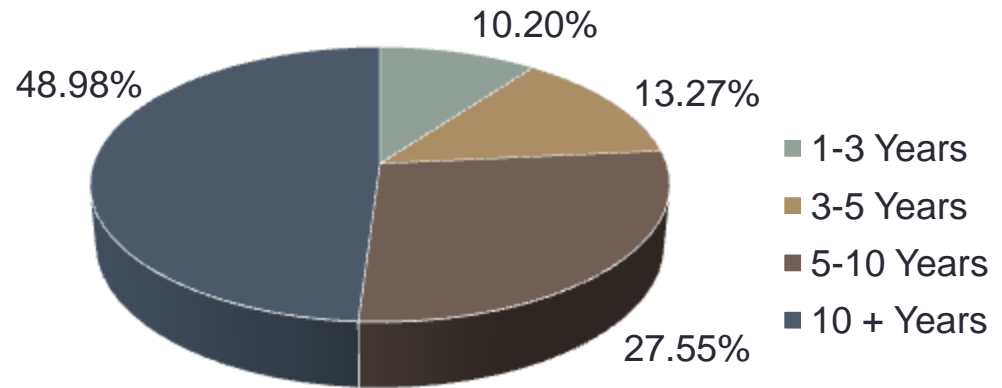 - From Basic to Advance Features

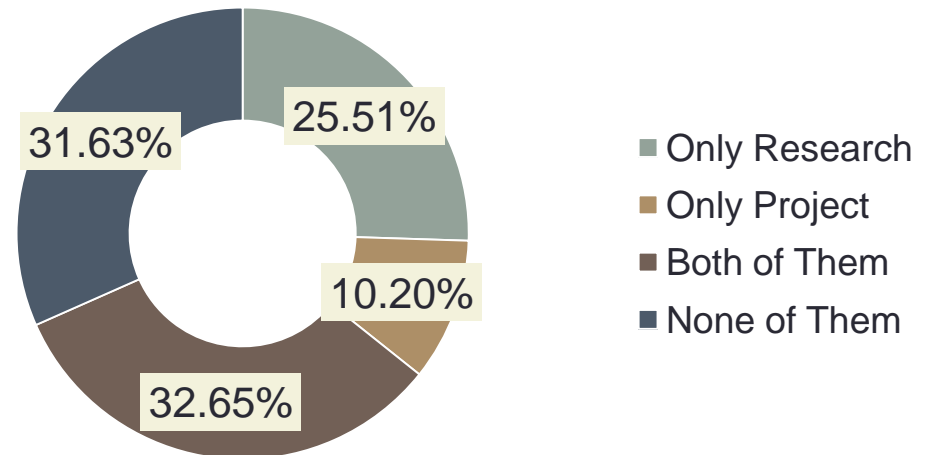|	Survey Questions
	Geoportal should have "Data Download Ability in Different Formats (for raster, vector, database)"
	Geoportal should have "Standardization in Data Themes both National and International Level (e.g. INSPIRE)"
	Geoportal should have "Interactive Data View within the Web Map Viewer"
	Geoportal should support "Print and Printing Layout Design "
	Geoportal should provide "Transactional Web Feature Services (WFS-T) Support"
	Geoportal should have "Mobile Application Software Version"
	Geoportal should provide "Application Programming Interface"
	Geoportal should provide "Online E-Commerce Marketplace for Data Selling Support"
	Geoportal should support "E- Government Integration"

Participiants

- Public Instituations (Information Technology Departmants), Private Companies (28) and Academics (19)

- 98 Participiants
  36 Public
  37 Academics
  25 Private Sector

Participants Experience

- 1-3 Years
- 3-5 Years
- 5-10 Years
- 10 + Years

10.20%
13.27%
48.98%
27.55%

Geoportal Relations

- Only Research
- Only Project
- Both of Them
- None of Them

25.51%
31.63%
10.20%
32.65%

Results - Overall

Questions	Average Score (High to Low)
Geoportal should have "Standardization in Data Themes both National and International Level (e.g. INSPIRE)"	4.72
Geoportal should have ability to "Search Data with Selecting Area from Map"	4.63
Geoportal should have "Interactive Data View within the Web Map Viewer"	4.6
Geoportal should present "Metadata Information"	4.57
Geoportal should have "Data Download Ability"	4.54

Results – Public Instituations

Questions	Average Score
Geoportal should have "Standardization in Data Themes both National and International Level (e.g. INSPIRE)"	4,75
Geoportal should support "E- Government Integration"	4,74
Geoportal should have ability to "Search Data with Selecting Area from Map"	4,67
Geoportal should have "Interactive Data View within the Web Map Viewer"	4,64
Geoportal should present Metadata Information	4,57

Results - Academics

Questions	Average Score
Geoportal should have "Data Download Ability"	4,84
Geoportal should have "Data Download Ability in Different Formats (for raster ,vector, database)"	4,68
Geoportal should have "Standardization in Data Themes both National and International Level (e.g. INSPIRE)"	4,66
Geoportal should have ability to "Search Data with Selecting Area from Map"	4,66
Geoportal should have "Interactive Data View within the Web Map Viewer"	4,58

Results – Private Sector

Questions	Average Score
Geoportal should have "Standardization in Data Themes both National and International Level (e.g. INSPIRE)"	4,62
Geoportal should present Metadata Information	4,58
Geoportal should have "Interactive Data View within the Web Map Viewer"	4,58
Geoportal should have ability to "Search Data with Selecting Area from Map"	4,58
Geoportal should be accessible to "Private Sector"	4,54

Conclusion – Geoportal Basic Features

- Geoportal should have ability to "Search Data with Selecting Area from Map" – **2**
- Geoportal should have "Interactive Data View within the Web Map Viewer" – **3**
- Geoportal should present "Metadata Information" - **4**
- Geoportal should have "Data Download Ability" - **5**
- Geoportal should provide "Geo-Rights Management Perspective " - **9**
- Geoportal should have "Thematic Mapping and Analytics on Data" - **12**
- Geoportal should provide "Accounts and Groups Management Support" - **20**

Conclusion – Development of Existing Geoportals

- Geoportal should have "Standardization in Data Themes both National and International Level (e.g. INSPIRE)" - **1**

- Geoportal should have "Data Download Ability in Different Formats (for raster, vector, database)" - **6**

- Geoportal should be accessible to "Non-Governmental Organizations or Associations" - **10**

- Geoportal should be accessible to "Private Sector" - **11**

- Geoportal should have "GeoRSS Support" - **15**

- Geoportal should have ability to "Store User Data" - **18**

- Geoportal should support "Print and Printing Layout Design " – **22**

- Geoportal should provide "WMS, WFS, WMTS, CSW, WCS, WFS-T, WPS support" – **8, 14, 17,19,21,24,25**

Conclusion – Advanced Geoportal Components

- Geoportal should support "E- Government Integration" - **7**
- Geoportal should provide "Online E-Commerce Marketplace for Data Selling Support" - **13**
- Geoportal should have "Mobile Application Software Version" - **16**
- Geoportal should provide "Application Programming Interface" - **23**
- Geoportal should have "3-Dimensional Data Provision and Visualization" – **26**

Thank You

Questions?

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