




NATIONAL AGENCY OF PUBLIC REGISTRY




UN-GGIM
UNITED NATIONS OFFICE OF GLOBAL GEOSPATIAL INFORMATION MANAGEMENT




UNECE




GOALS



UNDP



EFTA
AELE



National Initiatives and Progress in Implementing the Integrated Geospatial Information Framework

Third International Workshop on Operationalizing the Integrated Geospatial Information Framework

Marika Abuladze
Head of Spatial information Division
National Agency of Public Registry

Minsk, Belarus
November 28, 2019



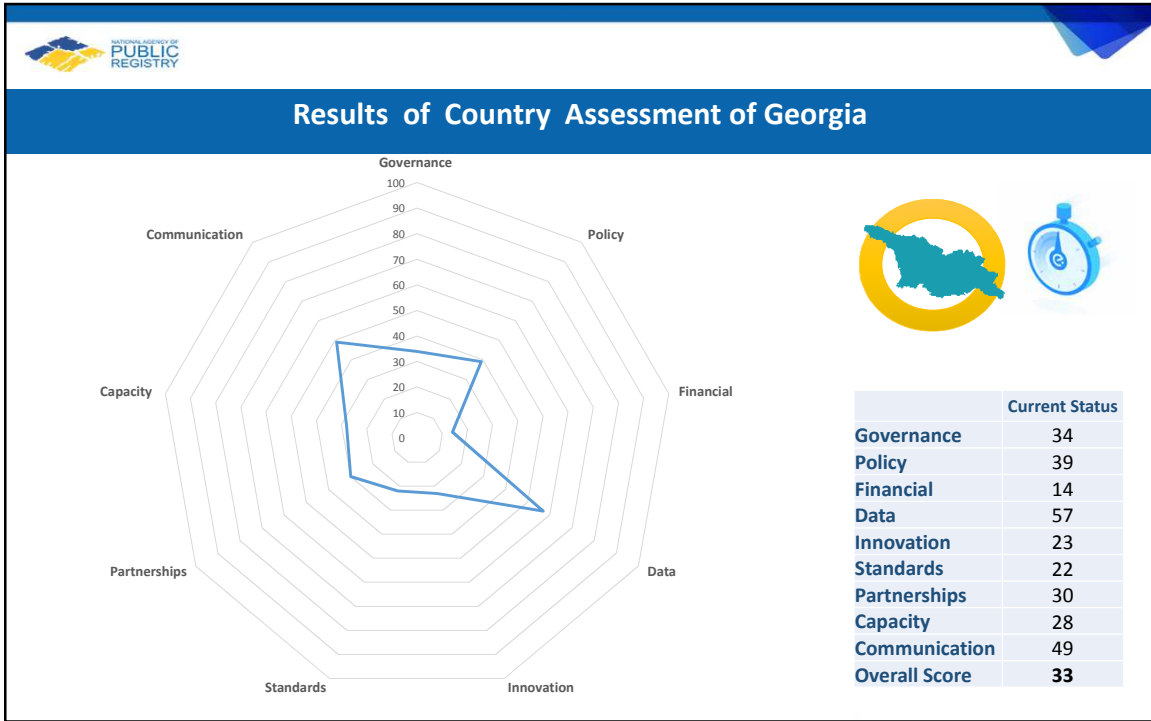
NATIONAL AGENCY OF PUBLIC REGISTRY




LANTMÄTERIET

Next Steps & Challenges

<p style="text-align: center;">NSDI Structure & Policy</p> <ul style="list-style-type: none"> • NSDI organizational structure: <ul style="list-style-type: none"> – Modernization of NSDI Structure NSDI coordination: – Setup coordination structure at NAPR – Establish coordination procedures • NSDI monitoring: <ul style="list-style-type: none"> – Establish National & INSPIRE monitoring procedures • Cost & Benefit assessment: <ul style="list-style-type: none"> – Guidelines for NSDI cost/benefit assessment • Data sharing agreement: <ul style="list-style-type: none"> – Data sharing model (licensing and pricing) – Technical framework for data sharing 	<p style="text-align: center;">Metadata & Geodata</p> <ul style="list-style-type: none"> • Metadata: <ul style="list-style-type: none"> – Development of metadata editor v 2.0 – Development of metadata catalog v 2.0 – Development of procedures/tools for metadata transformation from national standards to INSPIRE specifications • Geodata: <ul style="list-style-type: none"> – Development of integrated production strategy & plan for fundamental geodata – Standardization & harmonization of fundamental geodata – Development of geodata management system – Development of procedures/tools for geodata transformation from national standards to INSPIRE specifications 	<p style="text-align: center;">State agencies & Stakeholders</p> <ul style="list-style-type: none"> • Technical support: <ul style="list-style-type: none"> – Development of geodata models – Produce data product specifications – Development of geodatabase structure – Describe metadata – Setup IT Infrastructure for data sharing • Competence development: <ul style="list-style-type: none"> – NSDI training programs for professionals – NSDI in university curricula – NSDI research facilities at the universities • New NSDI web-page • New NSDI brochure
<p style="text-align: center;">Legal & Technical Regulations</p> <ul style="list-style-type: none"> • Update NSDI law according to: <ul style="list-style-type: none"> – <u>E-Government Strategy</u> – <u>EU Environmental Directive</u> – <u>EU Open Data Initiative</u> – <u>EU PSI Directive</u> 	<p style="text-align: center;">Geoportal & Services</p> <ul style="list-style-type: none"> • Development of Geoportal v 2.0: <ul style="list-style-type: none"> – Web services authentication system – Web services management & monitoring module – Geoportal business/licensing module for web services – Geoportal new technical & analytical tools 	 <p>Ministry of Justice of Georgia</p>  <p>Sweden Sverige</p>  <p>NATIONAL AGENCY OF PUBLIC REGISTRY</p>  <p>LANTMÄTERIET</p>



 NATIONAL AGENCY OF PUBLIC REGISTRY

Strategic Pathway 2
- Policy and Legal

Score: 39


- **NSDI Strategy**
 - Action Plan for 2018 - 2019


Needs:

- **Update NSDI Strategy (2020 - 2022) and Action plan (2020) according to:**
 - Adding socio-economic aspects
- **Update NSDI law according to:**
 - E-Government Strategy
 - EU Environmental Directive
 - EU Open Data Initiative
 - EU PSI Directive
- **Draft agreement on geospatial data sharing**
 - Technical framework for data sharing
- **Draft agreement on geospatial data sharing**
 - Establishing Data sharing model (licensing and pricing)

Drafted Legal Acts:
Draft Law on NSDI
Draft Government Resolution on metadata
Draft Government Resolution on geodata categorization
Drafted Technical Regulations:
National Metadata Standard
Technical Specifications for Metadata
National Standard of Data Product Specification

Laws on Data Protection & Security - not covering geospatial data



 NATIONAL AGENCY OF PUBLIC REGISTRY

Strategic Pathway 3
Financial


Score: 14


Exists:

- Pricing model approved by law for some kind of geodata - cadastral data and Orthophotos

Needs:


- Establish and develop Business Model
- Provide structure for pricing and licensing for SDI datasets/services
- Describe economic justification/assessment supporting business case
- Support financial sustainability for NSDI development
- A lot of data sets and services published on geoportal will be free of charge




<http://geoportal.gov.ge>
Score 57

Geospatial Data of NAPR

#	Theme	Dataset	Quantity
1	Aerial and satellite imagery (IMG)	Topo Maps	100 %
		Orthoimagery	80 %
2	Transport network (TRANS)	Airport	22
		Port	3
		Border crossing points	16
		Railway network	3 387 Km.
		Railway station/platform	324
3	Population (POP)	Road network	112 186 Km.
		Road sign	94 804
		Settlements	4 401
4	Hydrography (HYDRO)	Building	500 506
		Address data	560 506
5	Geographical names (GeoName)	Lake/Reservoir/Swamp	1 681
		Glacier	788
6	Vegetation (VEG)	Mountain/Peak	2 025
		Pass	261
		Range	383
7	Points of interest (Pol)	Protected area/Recreation area	12 929 sq.km
		Accommodation, Education, Medical care, Shopping ...Objects	118 482



Strategic Pathway 4 Data

Data Themes

Custodianship, Acquisition and Management

<http://geoportal.gov.ge>

Score: 57

Data Themes, Acquisition and Management

Data themes defined in the draft law on NSDI - based on INSPIRE and ISO

Some critical datasets created and maintained though improvements are needed.

Single national geodetic reference and co-ordinate system

Well-functioning GeoCORS covering Georgia (accuracy ca. 1.5 cm.)

ICT Infrastructure and Data Delivery

ICT infrastructure under development for:

- sharing and distribution of national geospatial data
- capture, management & maintenance of national geospatial data

Increasing trend of using open source software and database

Geoportal V. 1.0 (not yet fully functional)

Currently datasets and services of five authorities available (140)

Needs:


- Integrated Development of geodata management system
- Development of integrated production strategy & plan for fundamental geodata
- Establish National & INSPIRE monitoring procedures
- Development of procedures/tools for geodata transformation from national standards to INSPIRE specifications
- Development of metadata editor v 2.0
- Development of metadata catalog v 2.0
 - Development of geodata models
 - Produce data product specifications
 - Development of geodatabase structure
 - Describe metadata
 - Setup IT Infrastructure for data sharing

Web services authentication system

Web services management & monitoring module

Geoportal business/licensing module for web services

Geoportal new technical & analytical tools

 **Score: 23**


Strategic Pathway 5 Innovation

Georgia's Innovation and Technology Agency (GITA)
Lack of incentives for innovation using geodata
Geospatial direction is not included into the Strategic documents
Need for academic and private sectors in geodata related research programmes
Need for Bridging the Divide

In NAPR Exists:
Description of business processes related to data production - in the Enterprise Architect program

Needs:
Increase private sector participation in national geodata management
Improvement Process of geodata management
Promoting and Creativity

Technological Advances **Process Improvement**
Promoting Innovation and Creativity **Bridging the Geospatial Digital Divide**


 **Score: 22**

Strategic Pathway 6 Standards

- International standards for geospatial data, metadata and services used (ISO TC-211, OGC)
- No regulation or law yet that mandates the use of geospatial standards
- Georgian National Agency for Standards and Metrology - a mandated authority for standards, member of ISO
- Use of geospatial standards - not mandated, but followed in procurement of geospatial software & services

Needs:
- Creating information models/DPS for Data
- Standardization & harmonization of fundamental geodata
- Development of procedures/tools for metadata transformation from national standards to INSPIRE specifications

Compliance **Quality**
Community Practice **Technology Interoperability**

 **Score: 30**

Strategic Pathway 7 Partnerships


Government agencies collaborating in creation of geospatial data - few examples, increasing trend

Duplicated datasets identified through inventory - hydrography, road network

Some examples of involvement of academic sector and the sector in development related to geospatial information - NSDI WGs, GIS Lab

Need for more intensive international collaboration
- for capacity building and sharing best practice examples

Cross-sector and Interdisciplinary Cooperation	Private Sector and Academia Collaboration
Community Participation	International and Regional Collaboration

 **Score: 28**


Strategic Pathway 8 Capacity and Education

- **Competence development:**
 - NSDI training programs for professionals
 - NSDI in university curricula
 - NSDI research facilities at the universities

Needs:
Knowledge sharing between institutions increasing
Need for Advanced Professional Workplace Training
Lack of formal education


Exists:
Training of 44 employees from 22 municipalities in geographic information systems.

Advocacy and Outreach Programs	Formal Education
Entrepreneurship	Professional Workplace Training



Score: 49

**Strategic Pathway 9
Communication
and
Engagement**



Exists:
NSDI Communication & Action Plan
NSDI Information meetings & WSs
NSDI Brochure & Web-page

Need for Monitoring & Evaluation mechanism

- **New resources for increase awareness**
 - New NSDI web-page
 - New NSDI brochure
 - Guidelines for NSDI cost/benefit assessment

Thank you for your attention!



Contact Details:
E-mail: mabuladze@napr.gov.ge
Tel: +995 577 620 371



2 405 405
info@napr.gov.ge
www.napr.gov.ge