Development of Strategy for National Spatial Data Infrastructure in Moldova

Dr. Maria OVDII,
Agency for Land Relations and Cadastre
Maria.ovdii@arfc.gov.md
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Current Condition of the Mapping Sector in Moldova

• Since 2001, ALRC is the full member of European Association of National Cadastre and Mapping Agencies “EuroGeographics”[1] and highly cooperates with a 52 National Mapping and Cadastre Agencies in INSPIRE[2] development (European Spatial Data Infrastructure of European Communities).

• The Republic of Moldova approved the ALRC as the LMO (Legal Mandatory Organization) member in INSPIRE and participate in the Development of Data Specification[3] as Coordinate Reference Systems, Geographical Grid Systems, Geographical Names, Administrative Units, Addresses, cadastral Parcels, Transport Networks, Hydrography and Protected Sites.

Current Condition of the Mapping Sector in Moldova

• Projects at this stage:

i) The Project for Creation of Database for Base Map for Development of National Spatial Data Infrastructure 1:50 000 supported by JICA/Japan International Cooperation Agency

ii) The Project assisted by the Government of Norway “Line Map for Development”, which consists

(1) Preparing line maps (1/5,000) for parts of the Moldovan territory (20%) along with establishing capacity at ALRC for subsequent full coverage of the entire territory of Moldova, as well as establishing capacity for quality control of produced maps

Project Outline

(2) Establishment of a system for cost effective utilization of GPS surveying for ownership registration and other field activities “MOLDPOS Corn Network”.

Recently, the Government understood the importance and necessity of the geospatial information to manage and operate the e-governance.

Geospatial information is one of the key platforms for the transformation initiatives throw Geoportal. md.
Strategic Mission and Vision

• Building interactive data use regulation or rules based on 1/50,000, 1:5000 digital database
• Create standard for interactive data supply
• Create standard for metadata acceptable in EU viewing INSPIRE directive
• Fundamental design of NSDI scheme applicable in the common use
• Implying the necessity of input of both equipment and human resources
NSDI Diagram

ORGANIZATIONS

GOVERNMENTAL

NSDI

Decision Making

EU

- Euro Geographics
- INSPIRE

Standardization, Regulation, Metadata, Technical Specifications etc.

ALRC

NSDI CENTER

Key position to act on the implementation of this NSDI

Related Users

Individual IT Center

Individual IT Center

Individual IT Center
Propose one most demanding (fit for both client & JICA) application eg. food security (Agri.), environment (forestry),

Application of NSDI by Pilot research in some area
• The current legal instruments relating to the creation of an NSDI shall be reviewed. Draft legislation will be written to cover the critical legal aspects of the NSDI:

  i) INSPIRE Transposition: The INSPIRE Directive (2008/3/EU) and its associated regulations, implementing rules and guidance should be reviewed and as appropriate transposed into draft national legislation.

  ii) NSDI Regulations: Draft legislation modifying or extending the Law on Cadastre or other law will be written. It should encompass the legal aspects necessary for the implementation of the NSDI Strategy.

  iii) Data Sharing Regulations: A harmonized approach for licensing access and reuse of data should be written as a draft data sharing regulation.
**Interoperability Infrastructure**

- Existing IT Infrastructure and geospatial data: Analysis of the exiting IT infrastructure and geospatial data of key stakeholders
- Geospatial Data: A list of the publicly available geospatial data from the state institutions, public and private sector. Metadata should be produced for at least one institution which will be part of the government geo-portal.
- Metadata: Tools for the creation and maintenance of metadata necessary for the discovery of data sets and services
- Interoperability of Spatial Data and Services: Define the NSDI Framework Data Standard which enables interoperability across data models of different providers’ data.
- Network Services: The service necessary for managing, discovery, view, download, transform and invoke as specified by the INSPIRE Directive and Implementing Rules
- Data Sharing: Any tools necessary for data sharing based on the Draft Data Sharing Regulation developed in the previous work stream.
- Registries: Centralized registries need for the management of coordinate reference systems, feature catalogues and feature concept dictionaries.
- Government Geo-portal: A central geo-portal to enable users to discover data sets and services, and to review and download geo-spatial data as appropriate.
• Stakeholder Engagement: Workshops on key aspects of the NSDI strategy to raise awareness and engage stakeholders in the NSDI

• Interoperability Forum: Set up an interoperability forum where stakeholders may collaborate and work together on improving the interoperability of data and services within the NSDI

• Training: Technical training courses on the interoperability infrastructure to enable applications to be built using the NSDI and usage of spatial information for better decision making

• Promotional Materials: To include brochures and flyers to raise public awareness regarding the NSDI
Outline program showing when and how the NSDI strategy will be implemented shall be defined. It will include the following:

- An implementation plan with key activities, dependencies and milestones;
- To implement a pilot project to facilitate NSDI as a model and to modify the NSDI Strategy based on the result of the pilot project;
- Cost Estimation for promoting the NSDI;
- Plan for securing funds;
- The roles and responsibilities for the implementation of the NSDI;
- The key performance monitors and indicators for its implementation;
- How will risk be managed;
- Define the terms of reference for the software for the Government NSDI Geoportal.
Conclusion

- Moldova has recently started the establishment of the National Spatial Data Infrastructure.

- The project aims at supporting development of e-Governance, providing access to reliable and up-to-date geographical information for governmental institutions at all levels, professional users in private sector, and for the public in general.

- NSDI will facilitate Moldova’s integration in the European geographic information service for environmental protection, response to hazards and natural disasters, etc., in compliance with the EU INSPIRE Directives and Regulations.

- The Norway and Japan contributions are highly appreciated and support the development of the country.
Links - ALRC solutions

i) http://www.cadastre.md

ii) http://www.fondcartgeo.md

iii) http://www.moldova-map.md
Thank you for your attention!

Maria.ovdii@arfc.gov.md