Project based approach developing National Spatial Data Infrastructure in Lithuania

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Main Components of National Spatial Data Infrastructure (NSDI)

Rules and regulations

Law on Geodesy & Cartography

Access

State data
Municipal data
Value Added data

Geoportal

Data
Tools

Core web services

Thematic webservices
Desktop services
Registers, IT systems

Value

Added

data
Key changes in the Law on Geodesy and Cartography

- Definition of **Lithuanian Spatial Data Infrastructure**
  - LSDI portal as the State IS (services as defined in INSPIRE)
  - Standardisation and interoperability requirements for state data providers
  - All public spatial datasets **must** be linked to geoportal
  - Public access to GI data and services if other laws do not define differently

- Introduction of **State base georeferential cadastre**
  maintaining the most steady spatial objects

- NLS assures methodological supervision of all **state and municipal (up to the largest scale)** spatial data

- Public services **shall** use an access to spatial data via LSDI geoportal
Development of Core Technical infrastructure
Architecture of Lithuanian Geographic Information Infrastructure

Interoperability measures
 muttered that the Lithuanian Geographical Information System (LGII) is an important tool for the development of Lithuania, and that it is being used by both the public and private sectors. LGII provides access to a wide range of geographical data, including land use, terrain, and population statistics. The system is also used for environmental monitoring, urban planning, and disaster management.

LGII is a joint project of the Ministry of Environment and the Ministry of Agriculture and Food. It is funded by the European Union and the Government of Lithuania. LGII has been in operation since 2001, and it continues to be developed and improved.

LGII is an example of how technology can be used to improve the quality of life for citizens. By providing accurate and up-to-date geographical information, LGII helps to ensure that the development of Lithuania is sustainable and environmentally responsible.
Funding demands

- State budget
  - maintenance of the State geoportal
  - improving capacities of state spatial data providers
- EU funding opportunities developing IS and components of NSDI
  - EU Structural funds
    - Developing services in order to improve effectiveness between state authorities
    - Developing services for society / citizens
  - EU Regional funds
Funding demands for 2010-2015 (in EUR)

Annual maintenance cost – 250 000 EUR

- metadata: 504634 EUR
- data harmonisation: 497625 EUR
- network services: 417024 EUR
- monitoring and reporting: 439802 EUR
- coordination and horizontal measures: 1706644 EUR
INSPIRE / LSDI related projects

Feasibility study
Core LGII development
GI managers qualification improvement
Integration of large scale (municipal) data into LGII
e-services for production of land planning documents
Improvement of LSDI portal functionality

- 2003: 0.2 mln EUR
- 2005: 5 mln EUR
- 2007: 0.8 mln EUR
- 2009: 3-5 mln EUR
- 2011: 1.4 mln EUR
- 2013: 1.5 mln EUR
LSDI streams – steps forward

Users Community

State Information Systems

Large scale

Small scale

Data collection

Territorial planning

Construction

Environment protection

Land management

Emergency

Municipalities
Project on e-services producing of land planning documents

- NLS
- Surveyor
- Citizens
- Land owner
- Related institutions
- Project execution
- Application
- Control
- Licensing
- Open hearing
- Approval
- Validation
- Record in the RE Register
- Registration in the TPD register
- Content formation
- Data Suppliers
- RE register
- TPD register
- Validating institutions
- County governors
- Municipality
- Land management division
- LGII
Telšių apskrūtes Rietavo savivaldybės Žadavynų kaimo
6847 Pelačių kadastro vietovės
ŽEMĖS SKLYPU FORMAVIMO PROJEKTAIS M: 1:1000
Bendras formuojamų sklypų plotas: 0.6537 ha.
Formuojami sklypai: 1-0.2014 ha.
2-0.4523 ha.

Suderinta:
Case study on gathering of data for land planning

Orthophoto maps
+ Forest cadastre
+ drainage / wetland
+ Protected areas
+ Soil information
+ ...

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+ ...
Project on developing the register of territorial planning documents

- Government
- Ministries
- Environment Protection Agency
- State inspection of territorial planning and construction
- County governors
- Municipalities
- Society (enterprises and individuals)

Documents → TP register → Records → Data

TP admin IS
Integration of large scale municipal data into LSDI
Project on improving of geoportal functionality

- New requirements from INSPIRE Implementing Rules
  - Extend metadata profile
  - Improve multitasking (efficiency criteria)
  - Amend/improve monitoring services
- Arrange “cloud computing” platform
- Launch a set of thematic webservices
  - Land Information System
  - Data matching service
  - Tools facilitating public duties
    - GI application for controllers of cadastral surveyors
Concluding

- Project based approach allows an endless development of NSDI
- NSDI benefits society only if thematic applications are in place
- EU financial support is crucial for NSDI components development
- Centralised coordination of spatial data services contributes to an assurance of interoperability
- Mobility for data providers and mobility of service providers -> investment to the central LSDI platform
Thank you for the attention