

PROTOTYPE OF NATIONAL SPATIAL DATA INFRASTRUCTURE IN UKRAINE v. 2.0

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StateGeoCadastre: overview



KEY DOMAINS OF RESPONSIBILITY:



Topography, geodesy, mapping



Land relations, land cadastre



Land use & protection



Control for land use



National spatial data infrastructure



Providing of administrative services



Minister of Agrarian Policy and Food of Ukraine

Ministry of Agrarian Policy and Food of Ukraine

State Service of Ukraine for Geodesy, Cartography and Cadastre

- **25** regional offices (in each oblast)
- **462** district offices (without legal status)
- ~ **10 000** employees
- State-owned entities:
 26 topography enterprises,
 23 land management institutes,
 and State Land Cadastre Centre



Project «Creation of NSDI in Ukraine»



Objective:

Create NSDI prototype for the pilot territory with possibility to roll-up for the whole Ukraine. Duration – **2,5 роки**.

Partners from Ukraine:

Beneficiary: StateGeoCadastre

Recipient: StateGeoCadastre and SLCC

Partners from Japan:

Donor: Japan International Cooperation Agency (JICA)

Implementers: Kokusai Kogyo, PASCO Corporation

Pilot territory:

Vinnytsia district ~ 1030 sq. km.

NSDI Prototype territory:

Vinnytsia district and Vinnytsia ~ 11 sq. km.









- 1. Plan for Operation on NSDI in Ukraine
- 2. Coordination Framework
- 3. Standards of Geographical Information
- 4. NSDI Prototype
- 5. System Development



What has been done?



Examination of current Situation n Ukraine

Presentation of NSDI establishment stages in Japan

Best international Practices all over the world

Draft NSDI Operation Plan for Ukraine

Raising awareness on NSDI among key stakeholders

Bilateral work with data holders and data producers

Concept for NSDI coordination mechanism

Established the NSDI coordination SubGroup

Analysis of existing Standards in Ukraine and Japan

Development of Profile Standards for Ukraine Developed standards to become a National Standard

Standards are submitted for approval



Preparation for NSDI Prototype Creation



CATOGRAPHIC BASE

Aerial photography was conducted and ortho-photoplan was produced for the pilot territory



DATA SPECIFICATION

Fundamental data specifications according to the NSDI Prototype were created as UML diagram including detailed description of its packages



METADATA EDITOR

Is done according to UkrGIS Standard and allows to insert and search appropriate geospatial data in the prototype





NSDI Prototype Structure



NSDI PROTOTYPE STRUCTURE

Fundamental geospatial data

- Coordinate-spatial base of geospatial data
- State border of Ukraine, boundaries of administrative-territorial unit
- Hydrographic objects and hydro-technical utilities
- Settlements and their street-road network
- Industrial, agricultural and socio-cultural object
- Buildings and structures
- Automobile roads
- Railways
- Engineering communications
- Airports, sea and river ports
- Vegetation and soils
- Boundaries of land parcels
- Boundaries of planning elements of settlements and objects of zoning plans
- Registers of streets and addresses of objects on territory of settlements and beyond
- Geographical names
- Digital relief model

Ortophoto plans, orthophoto maps, aerial and satellite images and results of remote sensing of Earth

Profile data sets

- demography
- taxation zones
- condition of street network
- public hearings objects
- election districts

Geoportal & Services

- Search service
- Data sets viewer
- Access service
- Transformation service
- Metadata editor

Reference Information

- standards
- normative documents
- INSPIRE Directive
- Projects of EuroGeographics
- User manual

Pilot area

Area of 11 km² was determined for the prototype (3.2 km from North to South X 3.5 km from East to West), that partly covers the territory of Vinnytsia city and



NSDI Prototype Geoportal





НАЦІОНАЛЬНА ІНФРАСТРУКТУРА ГЕОПРОСТОРОВИХ ДАНИХ

ПРО ГЕОПОРТАЛ

СЕРВІСИ

KAP

KOHTAKTI

O UA ~

ADMIN BUЙTИ





Базові геопросторові дані



Профільні геопросторові дані



Адміністративно-територіальний устрій



Державна геодезична мережа



Дані земельного кадастру



Fundamental Geospatial Data





НАЦІОНАЛЬНА ІНФРАСТРУКТУРА ГЕОПРОСТОРОВИХ ДАНИХ

ПРО ГЕОПОРТАЛ

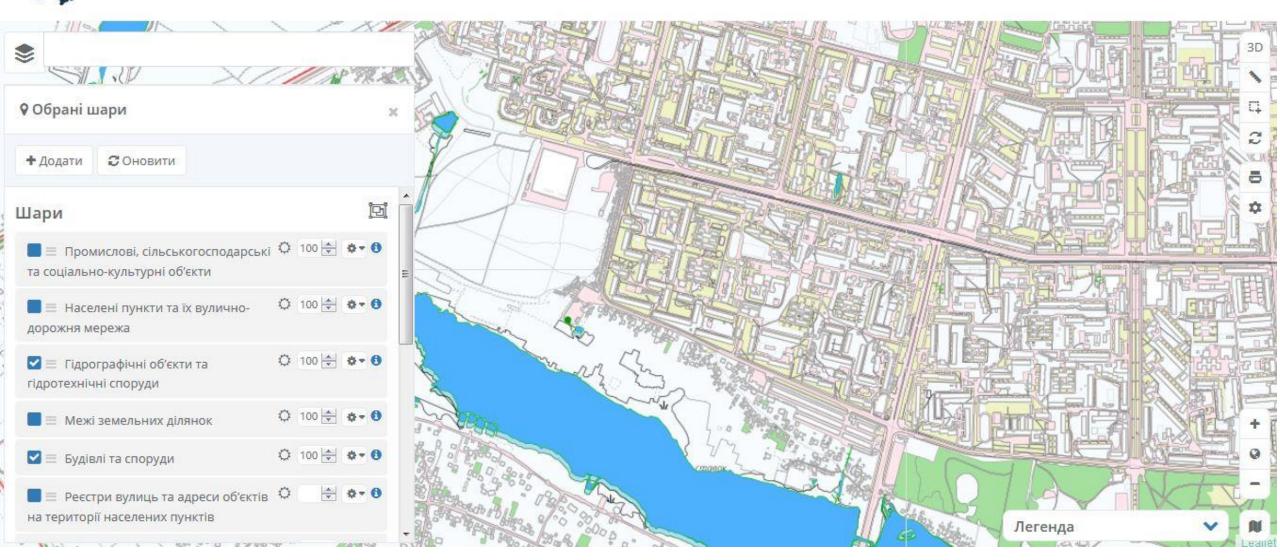
СЕРВІСИ

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& ADMIN ВИЙТИ





Profile Geospatial Data





НАЦІОНАЛЬНА ІНФРАСТРУКТУРА ГЕОПРОСТОРОВИХ ДАНИХ

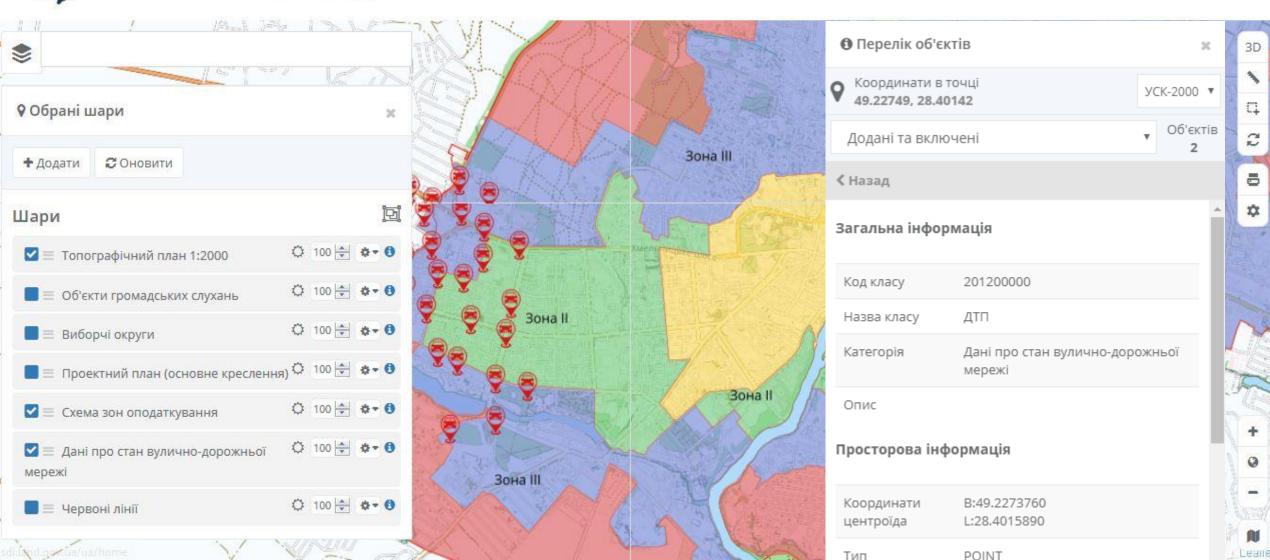
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Services of NSDI



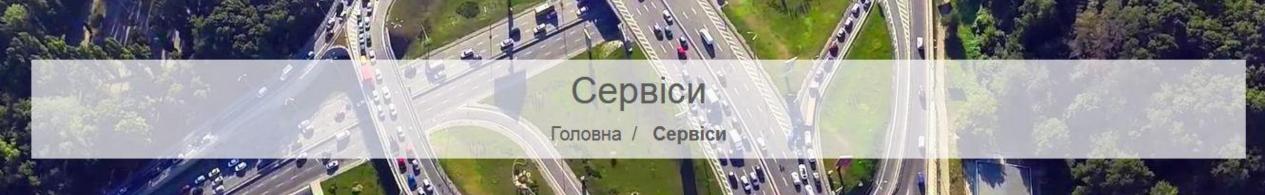


НАЦІОНАЛЬНА ІНФРАСТРУКТУРА ГЕОПРОСТОРОВИХ ДАНИХ

ПРО ГЕОПОРТАЛ

КОНТАКТИ

ADMIN ВИЙТИ



- Search service
- Data sets viewer
- Access service
- Transformation service
- Metadata editor





Analytical Functions





- Overlap analysis
 - Buffer analysis
 - Network analysis



NSDI Prototype: general conclusions



NSDI Prototype demonstrates how different geospatial data may be combined and used

Relevant authorities should have a clear vision how to utilized that information, analyze and benefit from it

Only close cooperation between data holders may lead to effective and operational NSDI in Ukraine





We are open for cooperation!



- Public comments and proposals may be sent to StateGeoCadastre
- Round-table expert discussion may be arranged a to discuss received ideas



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Thank you!