

What has been taken from INSPIRE to Ukrainian SDI?

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12 of February 2020, via webinar

LAND.GOV.UA



Content of the presentation



- StateGeoCadastre in brief
- NSDI in Ukraine: good start but...
- Did INSPIRE influence Ukrainian progress in SDI?
- Further actions to be taken





State Service of Ukraine for Geodesy, Cartography and Cadastre



KEY FUNCTIONS & RESPONSIBILITY:



Topography, geodesy, mapping



State Land Cadastre



Spatial Data Infrastructure



Land use & protection



Control for land use



Administrative services



Ministry of Economy, Trade and Agriculture Ukraine

Minister

State Service of Ukraine for Geodesy, Cartography and Cadastre

25 regional offices (in each oblast)

10 000 + employees all over the country

55 state enterprises on mapping and land management















History of "NSDI Attempts" in Ukraine



TC-103 established "Geographical Information/Geomatics"

Scientific manual "Strategy of NSDI Creation in Ukraine"

1st draft of NSDI Law submitted

1991 > 1995

2000 > 2006

2007

2008

Creation of State Committee on GIS under Cabinet of Ministers of Ukraine

Ukrainian-Swedish project on institutional preparations for NSDI

CMU approved the concept of NSDI Law

ДСТУ ISO 19101:2009"Geographical information— master model)

Approval of a set base international standards ISO 19100 for Ukraine

Approval of a national standard "Geographical information. Rules for modelling of geospatial data"

2019

2011

2015

2017

2018

JICA Project on NSDI Prototype launched Establishment of NSDI coordination group

3rd draft of NSDI law submitted

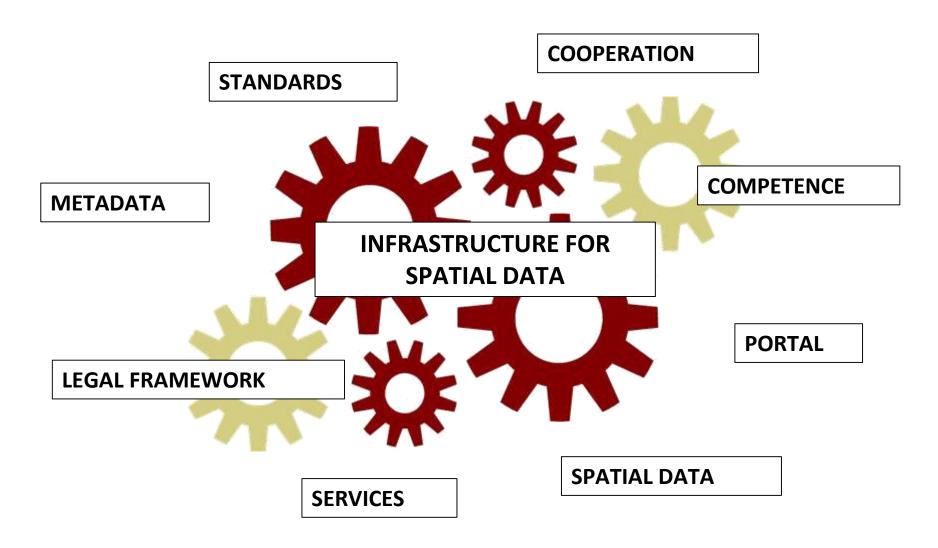
New concept of NSDI law submitted to Parliament





Components of SDI according to INSPIRE





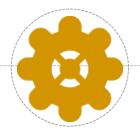


Legal Framework



National Spatial Data Infrastructure







National NSDI Strategy

- Principles of work with geospatial data
- Harmonization of action plans and strategies in different spheres
- Establishment of NSDI Coordination committee
- Harmonization of cooperation with different data holders

Order of NSDI administrating

- Administrator of NSDI
- Data integration rules
- Access to geospatial data
- Cooperation between data holders, producers, users and administrator
- Geospatial data that are produced by municipalities

Law of Ukraine on NSDI

- Concept
- Data holders
- Data themes
- Management and authority
- Coordination and responsibility



Standards



- National Standardization Body of Ukraine is checking and approving the standards from different spheres. The standards are not mandatory for being used and have only recommendation character.
- The standards are mandatory if they are referenced from the law or regulation
- These standards are distributed **not free of charge** for the interested parties.
- SE "Research Institute for Geodesy and Cartography" (supervised by StateGeoCadastre) is a member of TC-103

The most recent standards that were published in 2019:

ДСТУ 8774 «Rules of geospatial data modelling»

ДСТУ 19115 «Metadata»

ДСТУ 19131 «Specification of geo-informational product»

ДСТУ 19157 «Quality of geospatial data»



Informative seminars for the data holders on standards' application to be organized by StateGeoCadastre in early 2020



Portal – Services – Metadata



Portals launched by StateGeoCaastre:

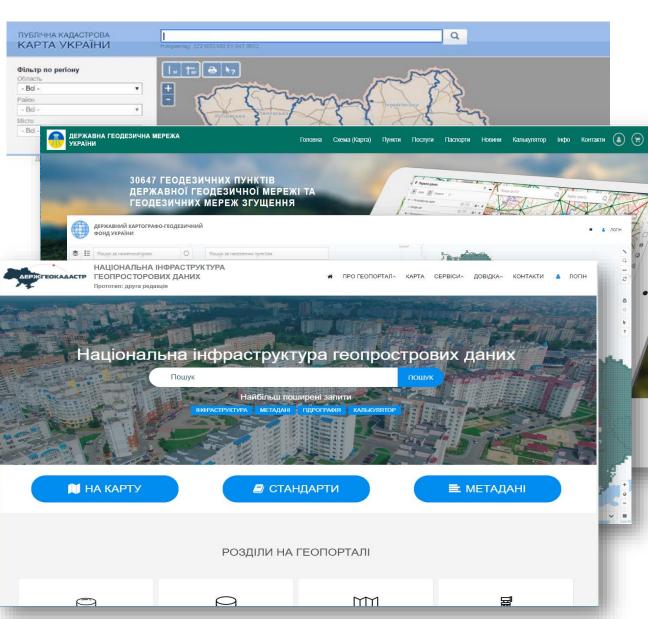
- 1. Public Cadastral Map
- 2. Portal of State Geodetic Network
- 3. State Cartographic and Geodetic Fund of Ukraine
- 4. Prototype of National Spatial Data Infrastructure

SERVICES:

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



Metadata editor





Spatial Data



FUNDAMENTAL DATA SETS (NSDI DRAFT LAW)

- 1) Coordinate-spatial base of geospatial data
- 2) State border of Ukraine, borders of admin units;
- 3) Hydrography objects and hydrotechnical constructions
- 4) Settlements and road-street network
- 5) Industrial, agricultural and socio-cultural objects
- 6) Buildings and construction
- 7) Automobile roads
- 8) Railways
- 9) Engineer communications
- 10) Airports, sea and river ports
- 11) Vegetation and soils
- 12) Boundaries of land parcels
- 13) Territories and objects of natural-reserve fund and other objects of eco-network
- 14) Boundaries of settlements planning elements and zoning plans' objects
- 15) Street registries and objects' addresses in and out of settlements
- 16) Geographical names
- 17) Digital terrain model
- 18) Orthophotoplans, orthophotomaps, aero- and space images and results of remote sensing

CORE REFERENCE DATA (INSPIRE WG)

- 1) Geographical names
- 2) Administrative units
- 3) Addresses
- 4) Land parcels
- 5) Transport network
- 6) Hydrography
- 7) Elevation
- 8) Land cover
- 9) Orthophoto and imagery
- 10) Statistical units
- 11) Buildings
- 12) Land use
- 13) Communal (infrastructure) networks and services
- 14) Management of the territories



FUNDAMENTAL DATA SETS (UN:GGIM)

- 1) Global Geodetic Reference Frame
- 2) Addresses
- B) Buildings and Settlements
- 4) Elevation and depth
- 5) Functional zones
- 6) Geographical names
- 7) Geology and soils
- 8) Land cover and land use
- 9) Land parcels
- 10) Infrastructure
- 11) Population distribution
- 12) Orthophoto
- 13) Transport network
- 14) Water





Core Reference Data – INSPIRE Working Group





Sets of Geospatial Data are indicated according to INSPIRE



Core Reference Data Set



- 1) Geographical names
- 2) Administrative units
- 3) Addresses
- 4) Land parcels
- 5) Transport network
- 6) Hydrography
- 7) Elevation

- 8) Land cover
- 9) Orthophoto and imagery
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Cooperation and Competence



09 November 2017 – the 1st meeting was held

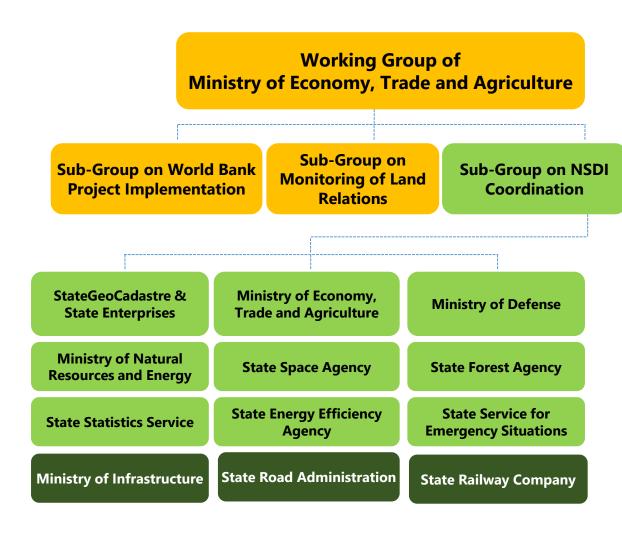
In total 4 subgroup meetings

Tasks of the SubGroup:

- 1. Coordination of NSDI development activities.
- 2. Negotiations on geospatial data exchange.
- 3. Ensuring the effective cooperation between data holders.
- 4. Facilitation involvement.
- 5. "Voice" of geospatial community

Challenges:

- 1. Not enough capacity to organize and hold the meetings.
- 2. Not enough level of involvement from the stakeholders.
- 3. How to attract private sector and NGO and preserve the initial goal?



- recently joined to the SubGroup



Infrastructure for Spatial Data: operational model





NSDI Coordination Board
Advisory body

Funding for NSDI creation

- 1. State budget
- 2. Local budgets
- 3. International aid



Authority, responsible for the implementation of the state policy NSDI Coordinator

NSDI Administrator







Metadata

Data holders & producers

NSDI

Fundamental spatial data

Profile data

Metadata

Services

NSDI Standards

- Publication at their own web sites
- Access via NSDI geoportal
- «Open data» principle
- Most date are free of charge









Construction Infrastructure



Big business Communications



Citizens
State servants
Researches





Why NSDI is still not implemented?



"Wrong time and wrong place" for NSDI initiatives



4 times draft NSDI law was in Parliament and never even voted

Insufficient awareness about geospatial information benefits



The "digital solutions" were not of the highest priority

Geospatial initiatives have not highly identified "social" aspects



Unknown "NSDI topic" has not as much relation to the citizens as land reform, pension reform or medical one

Low mobility of the state authorities along with political instability



Created a "vacuum" in geospatial information management on the central level: a lot of local initiatives, NGO and donor support without final national goal



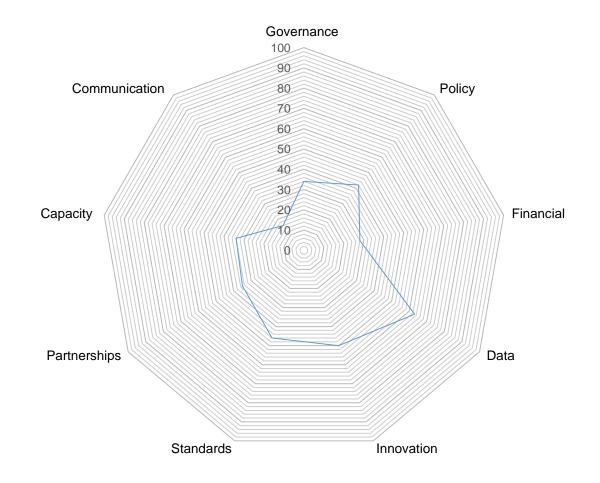
IGIF assessment result and conclusions



TOTAL IGIF SCORE:

39

- Capacity challenges at the "NSDI leader"
- Low level of engagement and involvement from other stakeholders
- Competitive environment between public and private sector. And even between various public institutions
- Absence of common geospatial idea that will find clear benefits for each sector of public and private activities both on national and local levels







Thank you!

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