



Integrated Geospatial Information Framework: country assessment of Ukraine

Dmytro Makarenko
State Service of Ukraine for Geodesy, Cartography and Cadastre

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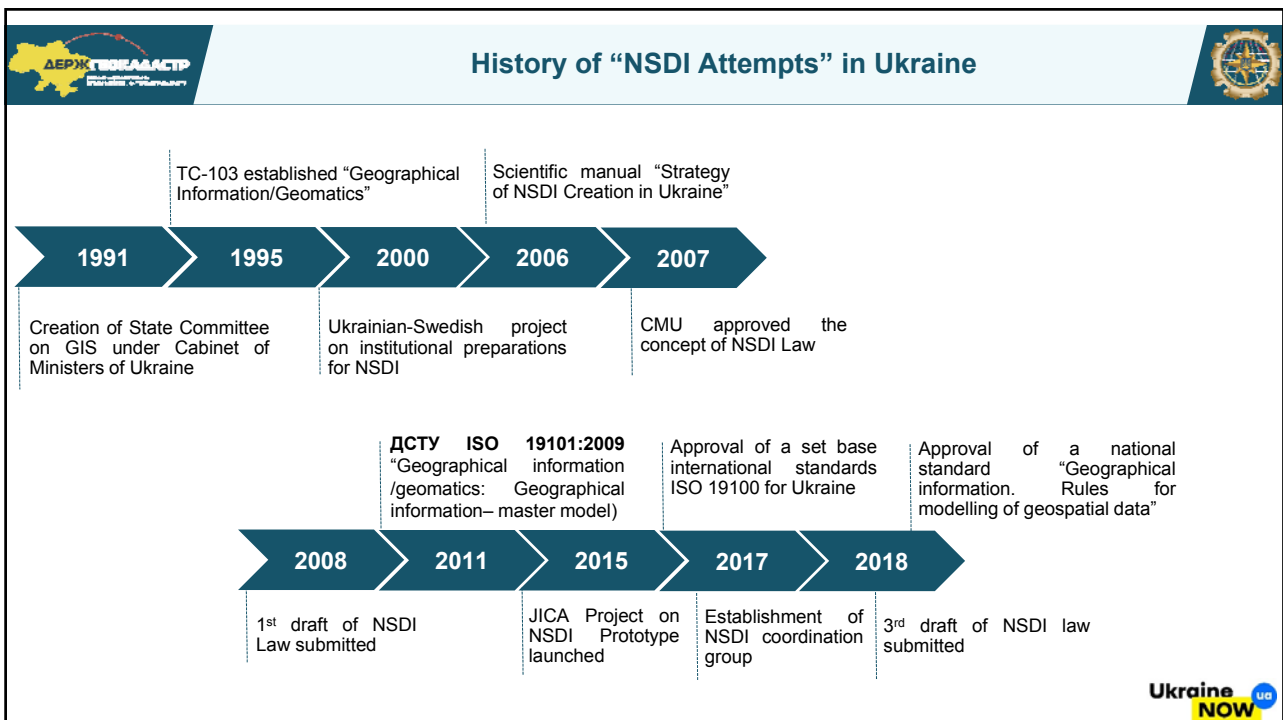
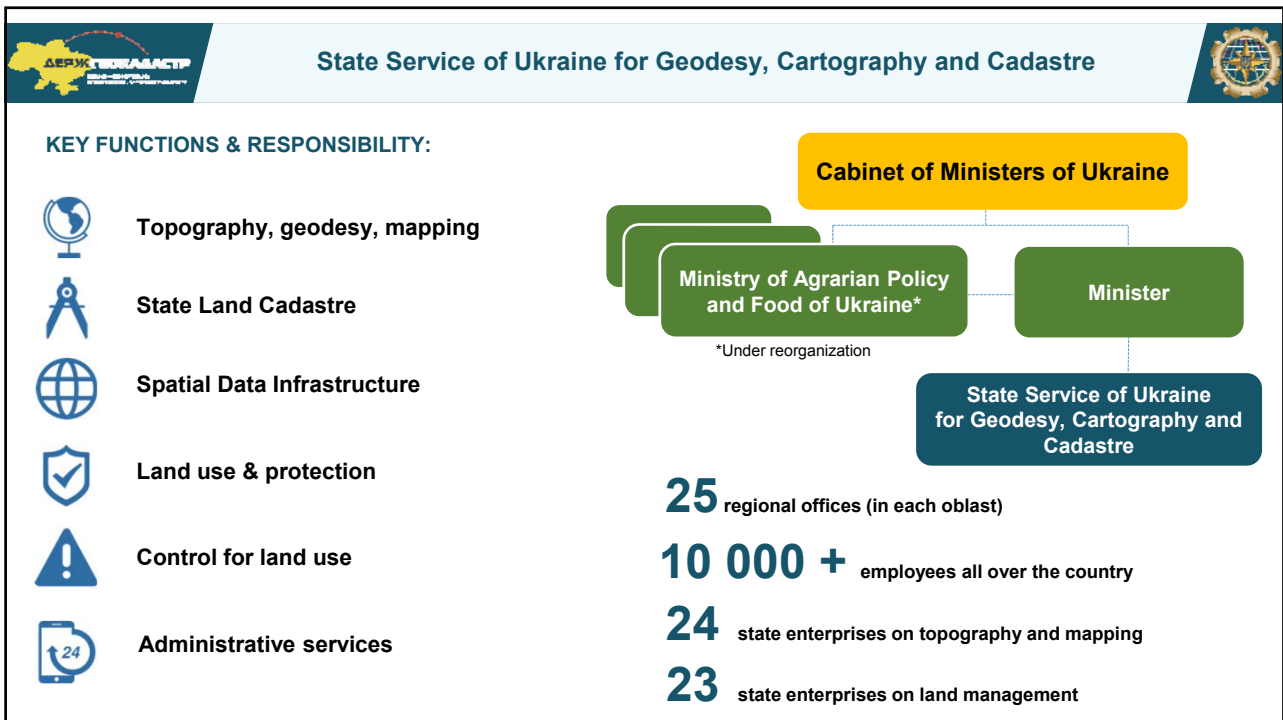
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Content of the presentation




- StateGeoCadastre in brief
- NSDI in Ukraine: good start but...
- Integrated Geospatial Information Framework: a perfect trigger
- IGIF initial assessment: Ukraine
- Further actions to be taken



Why NSDI is still not implemented?

<p>“Wrong time and wrong place” for NSDI initiatives</p>	➤	<p>3 times draft NSDI law was in Parliament and never even voted</p>
<p>Insufficient awareness about geospatial information benefits</p>	➤	<p>The “digital solutions” were not of the highest priority</p>
<p>Geospatial initiatives have not highly identified “social” aspects</p>	➤	<p>Unknown “NSDI topic” has not as much relation to the citizens as land reform, pension reform or medical one</p>
<p>Low mobility of the state authorities along with political instability</p>	➤	<p>Created a “vacuum” in geospatial information management on the central level: a lot of local initiatives, NGO and donor support without final national goal</p>

Integrated Geospatial Information Framework



INTEGRATED GEOSPATIAL INFORMATION FRAMEWORK
A STRATEGIC GUIDE TO DEVELOP AND STRENGTHEN NATIONAL GEOSPATIAL INFORMATION MANAGEMENT

At 8th UN-GGIM meeting in August 2018 part 1 of IGIF “**Overarching Strategic Framework**” was adopted

p. 2 «National implementation guide» **is being drafted**

p. 3 «National or Regional action Plans» **is being drafted**

IGIF ASSESSMENT TOOL METHODOLOGY:

- Set of questions to each pathway;
- Scoring principle: 0/25/50/75/100

9 STRATEGIC PATHWAYS WERE IDENTIFIED:


1 Governance and institutions	4 Data	7 Partnership
2 Legal and Policy	5 Innovation	8 Capacity & Education
3 Financial	6 Standards	9 Communication & engagement

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1
Governance and institutions

SCORE:

50



- StateGeoCadaastre is considered to be “**NSDI champion**” in Ukraine according to the legislation and due to holding the most number of data sets
- **SubGroup on coordination of NSDI development** is established and is operating under the Ministry of Agriculture. Representation is on the middle management level.
- SubGroup of NSDI is **not actively involved** to the cooperation with other levels and stakeholders (local level, private sector and NGOs)
- StateGeoCadaastre is an active member of Eurogeographics and UN-GGIM: Europe, mainly as “**benefit user**”, not as “**benefit producer**”
- E-governance ministry of Ukraine is responsible for digitalization. It launched administrating of “open data portal” (<https://data.gov.ua/>)

SubGroup on NSDI Coordination

09 November 2017 – the 1st meeting was held

In total **4** subgroup meetings (as of August 2019)

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?

Working Group of Ministry of Agrarian Policy and Food of Ukraine

- Sub-Group on World Bank Project Implementation
- Sub-Group on Monitoring of Land Relations
- Sub-Group on NSDI Coordination

StateGeoCadaastre & State Enterprises	Ministry of Agrarian Policy and Food	Ministry of Defense
Ministry of Natural Resources	State Space Agency	State Forest Agency
State Statistics Service	State Energy Efficiency Agency	State Service for Emergency Situations
Ministry of Infrastructure	State Road Administration	Ministry of Energy and Coal Industry
State Railway Company		

■ – recently joined to the SubGroup

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Legal and Policy

SCORE:

52

- **A separate NSDI policy is needed.** NSDI initiatives do not have systematic approach within the state policies / strategies etc.
- **NSDI law is drafted,** should be re-approved. Necessity of additional legal sub-regulations is recognized. **Concept of NSDI development for 2020-2023 is drafted.**
- NSDI is planned to be included to the Cabinet of Ministers middle term action plan.
- Open data policy for Ukraine was adopted in 2015. The Open data portal is operating. Data are mainly for general use (statistical forms, etc). Geospatial data have low share on the portal
- Data protection is included to some of the state policies, but the term "data licensing" should be studied and applied additionally.

NSDI Legal & Policy provisions

National Spatial Data Infrastructure

Law of Ukraine on NSDI

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

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

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

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3
Financial

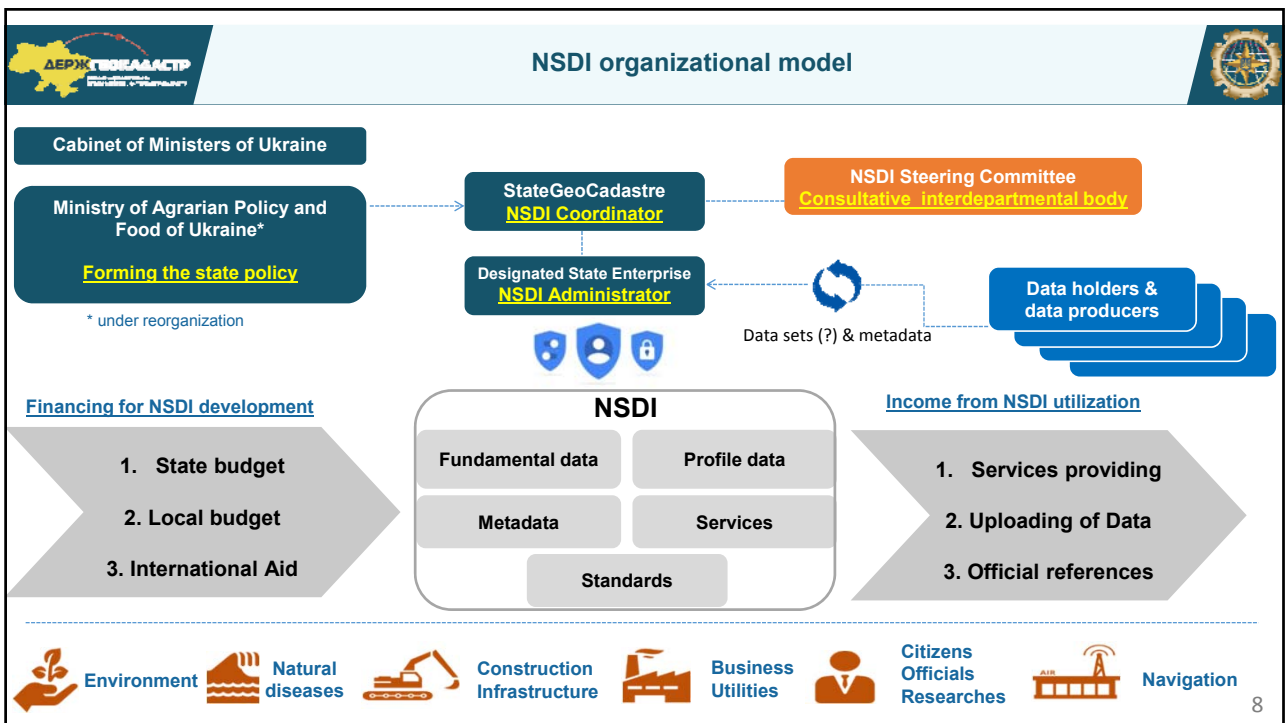
SCORE:


32




- Organizational NSDI model exists (according to the existing legislative drafts)
- Finance is secured, but not for "NSDI" as a whole, but for separate budget program "topographic and geodetic activities".
- No pricing principles for data sets and services has been identified yet
- Private sector is too active in the geospatial domain in "competitive" manner. It is planned to attract private sector into NSDI, but within limited authorization and role
- Data protection is included to some of the state policies, but the term "data licensing" should be studied and applied additionally.








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4
Data

SCORE:

78



- More than a half of fundamental data sets are already created and are being maintained: on central, regional or local levels. **It is important to consolidate them via "NSDI leader"**.
- **ICT system for NSDI prototype is created**, but for pilot territory. It is needed to roll-out for the whole Ukraine. The possibility for data sharing hasn't been checked yet.
- **Geoportal for NSDI Prototype** is created and operating
- **Single national coordinate system** USC-2000 (as of 2003), launched in for land management in **2016**.
State Reference System is being developed with support of Kartverket. At the moment private CORS networks are operating on the market.






Fundamental Geospatial Data Sets in Ukraine: which way to move?




<u>FUNDAMENTAL DATA SETS (NSDI DRAFT LAW)</u>	<u>CORE REFERENCE DATA (INSPIRE WG)</u>	<u>FUNDAMENTAL DATA SETS (UN:GGIM)</u>
<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 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 	<ol style="list-style-type: none"> 1) Global Geodetic Reference Frame 2) Addresses 3) 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








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5
Innovation


SCORE:

50




- Ministry of digital transformation (former E-governance agency) is responsible for implementation of innovations. **Geospatial domain is not included to the Strategies and Concepts**
- Private sector is very much involved into geospatial initiatives in “competitive” manner, producing alternative products.
- **Collaborative approach** between public and private sector/NGO is needed
- **Private sector and NGO support the principle “free sharing of geospatial data without NSDI administrator”.**






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6
Standards

SCORE:

46




- **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.
- Research Institute for Geodesy and Cartography is a member of TC-103


The most recent standards (to be 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 2019




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7
Partnerships


SCORE:

35




- Government Agencies **do cooperate on bilateral level, not in terms of NSDI**, but on defined topics (receiving of mapping products, data from land cadaster, etc.)
- **Donor funded projects are supporting initiatives on the local level** for Conglomerated territorial communities, **but without “NSDI regulator”** participation.
- Private sector is involved to NSDI initiatives, sometimes **not in line with the public concept**
- **Private sector and NGO support the principle “free turnover of geospatial data”**.






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Capacity & Education

SCORE:

34



- The vacuum of information hides real benefits of users and the country in general. “NSDI” sounds too difficult and not clear to people who are not dealing with it.
- Solid geospatial programs from universities exist. There is a gap in continuous professional training for NSDI specialists from all stakeholders.
- Several geospatial training courses were organized for specialists abroad – with no systematic approach.
- **5** International conferences were organized in Kyiv starting from 2015. Speakers from **17** countries, Eurogeographics, UN-GGIM and JRC.

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Communication & Engagement

SCORE:

19

- Good “reformers” vs. bad “regulator” in terms of NSDI development
- No action plans on engagement and raising awareness = public sector is losing the competition
- **Key goal** - to make people and organizations involved
- NSDI will make a leapfrog, when each sphere of economy and public life understand clear benefit from geospatial information utilization

Assessment result and conclusions


TOTAL SCORE:

44


Category	Score
Governance	45
Policy	40
Financial	35
Data	45
Innovation	40
Standards	35
Partnerships	40
Communication	45

- Capacity challenges at the “NSDI leader”
- Low level of engagement and involvement from other stakeholders
- Competitive environment between public and private sector. And sometimes 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


Ukraine NOW



Further Actions to be taken



- Adoption of National strategy for geospatial data and development actions plans
- Action plan for i) implementation of the NSDI Strategy ii) raising awareness, ii) engagement of stakeholders
- Practical cooperation between data holders in i) MoUs to raise the public interest, ii) data integration to demonstrate the benefits, iii) licensing agreements for combined data sets
- Continue implementation of different parts of NSDI: (i) digital base map 1:50 000, (ii) digital base map 1: 10 000, iii) standards, iv) geoportal
- Transformation of NSDI subgroup into the technical working group and establishment of high level coordination committee on the national level
- Adoption of the NSDI Law
- Development of Order for NSDI Administration





Thank you!

Dmytro Makarenko
Deputy Director for International Cooperation and Land Market –
Head of International Relations Division
makarenko@land.gov.ua
LAND.GOV.UA