



STATEGEOCADASTRE

# Geospatial Information in Ukraine: International Cooperation Projects

Development and Funding Workshop  
Leuven 16<sup>th</sup> of May 2018

LAND.GOV.UA

## KEY DOMAINS OF RESPONSIBILITY:



Topography, geodesy, mapping



State land cadastre



Spatial Data Infrastructure



Land use & protection



Control for land use



Administrative services providing

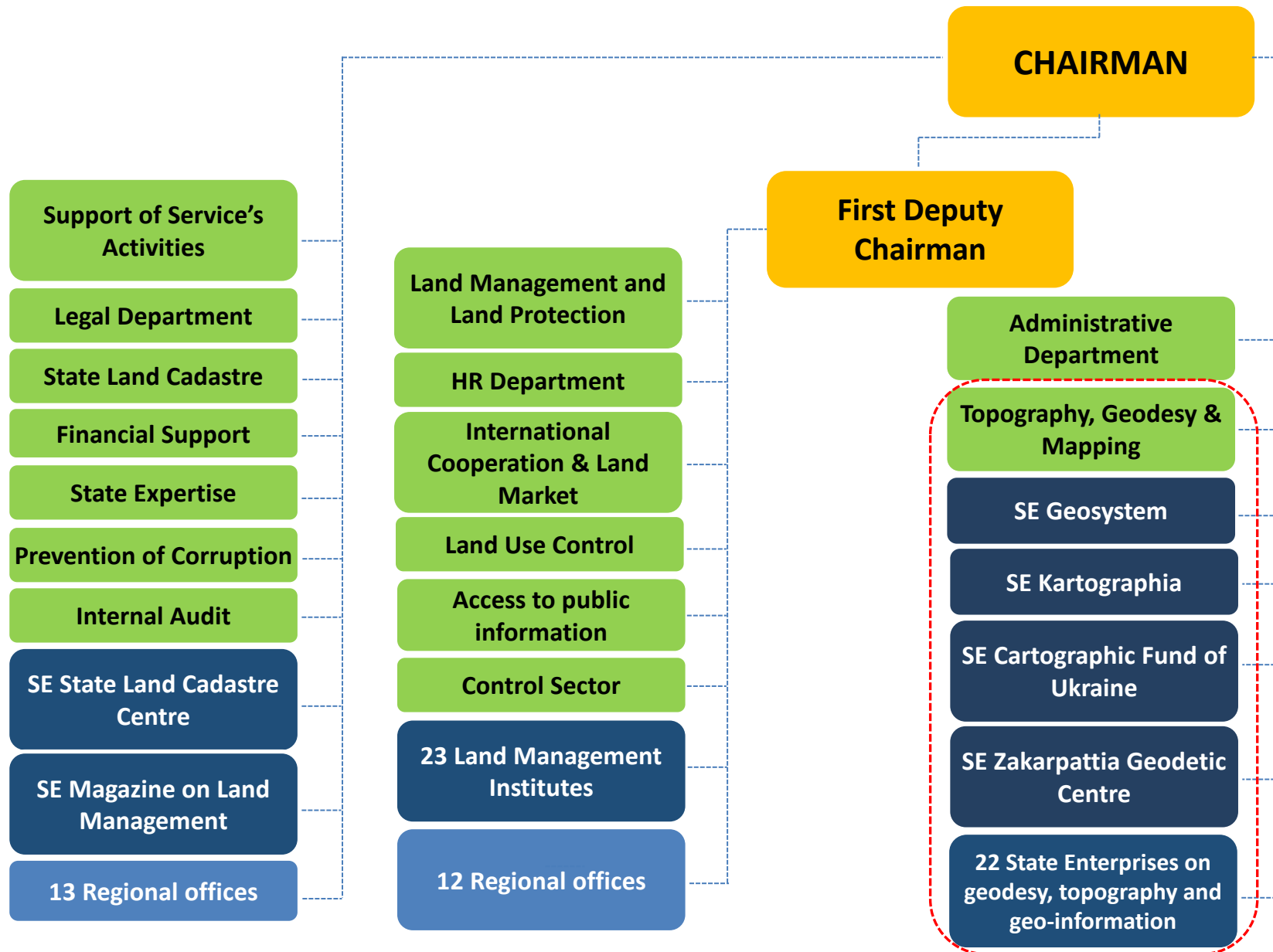
Cabinet of Ministers of Ukraine

MINISTER

Ministry of Agrarian Policy and  
Food of Ukraine

State Service of Ukraine for  
Geodesy, Cartography and  
Cadastrе

- 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





**2004 – 2012**

The World Bank Project on  
Rural Land Titling and Cadastre



**2014 – 2017**

The World Bank Project  
Monitoring of Land Relations  
in Ukraine



**2016 – 2017**

UN Food & Agriculture Organization  
Project on Voluntary Land  
Consolidation



**2014 – 2016**

EU Twinning Project on Land  
Market Development in  
Ukraine



**2015 – 2018**

JICA Project on NSDI  
Prototype Development  
for the Pilot territory



**2018 – 2020**

Kartverket Project on  
Digital Base Map and  
GNSS Network Creation



**2018 – 2022** EU-World Bank Project on Transparent Land Governance in Ukraine





## CHALLENGES WITH GEOSPATIAL INFORMATION:



**Absence of legal background**



**Low level of understanding of what is SDI and its benefits**



**New unconnected geo-portals are being created by different stakeholders in Ukraine**



**No coordination between geospatial data providers**



**Outdated standards of geographical information**

## General Objective:

To create the NSDI Prototype for the pilot territory with the possibility of rolling-up for the whole territory of Ukraine.  
Duration – **2.5 years**.

## Partners from Ukraine:

StateGeoCadastrе and State Land Cadastre Centre

## Partners from Japan:

**Donor:** Japan International Cooperation Agency (JICA)

**Implementing Organizations:** Kokusai Kogyo, PASCO Corporation

## Pilot region:

Vinnytsia district of Vinnitsia oblast. ~ 1030 sq. km.

## Territory of NSDI Prototype:

Vinnytsia district and Vinnitsia ~ 11 sq. km.



# Do we have any plan?



## Component 1

### Plan for Operation of NSDI in Ukraine



Examination of current situation in Ukraine



Analysis of Japanese NSDI operational model and establishment stages



Analysis of some NSDI world wide practices



Tentative estimation of financial, technical and human resources to be utilized



Draft Operation Plan to be adopted and approved by the SubGroup

## NSDI-RELATED POLICY

NSDI Principles and Historical perspective

Legal

Framework

ORGANIZATIONAL STRUCTURE

DATA HOLDERS

Schedule

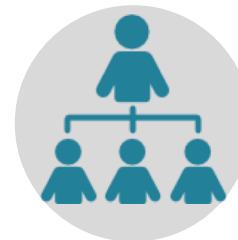
for

NSDI

Geo-portal development operations models

List of Geospatial Data

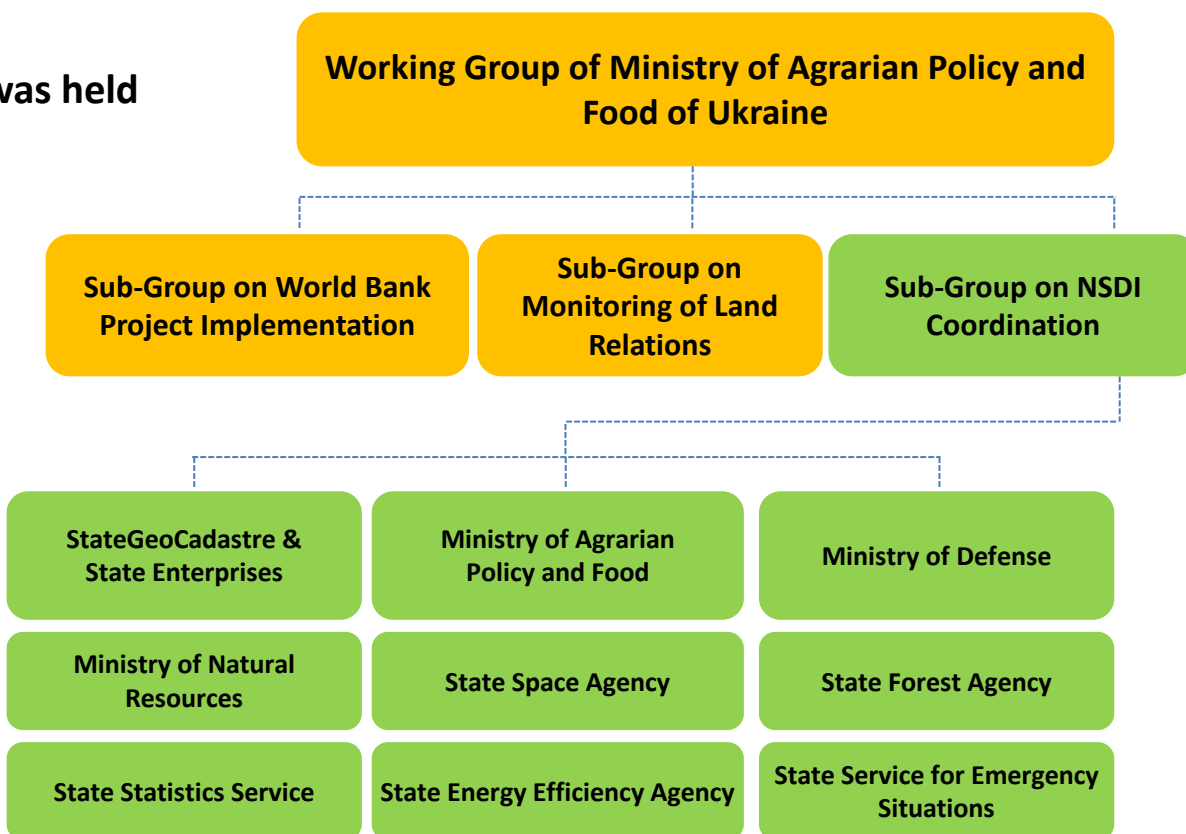
## Component 2 Coordination Framework for NSDI



**09 November 2017** – the 1<sup>st</sup> meeting was held

### 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 of other stakeholders to be involved to the process.



## **Component 3** **Standards of Geographical Information**



### **BEFORE THE PROJECT**

ISO Standard «Geographical Information/ Geomatics»

Departmental Standard «Topographic Data Base»  
(included 9 standards)

**Developed by Ukrgeodezcartographia, was not utilized as a national standard**

- Digital Description of Relief
- Rules of Coding and Digital Description of Vector Data
- Catalogue of Objects and Attributes

**The Law on Ukraine on Standardization**

### **AFTER THE PROJECT**

«The Rules of modeling of geospatial data»  
**Submitted to the National Standard Board**

«Metadata»  
**To be submitted after approval of the Rules**

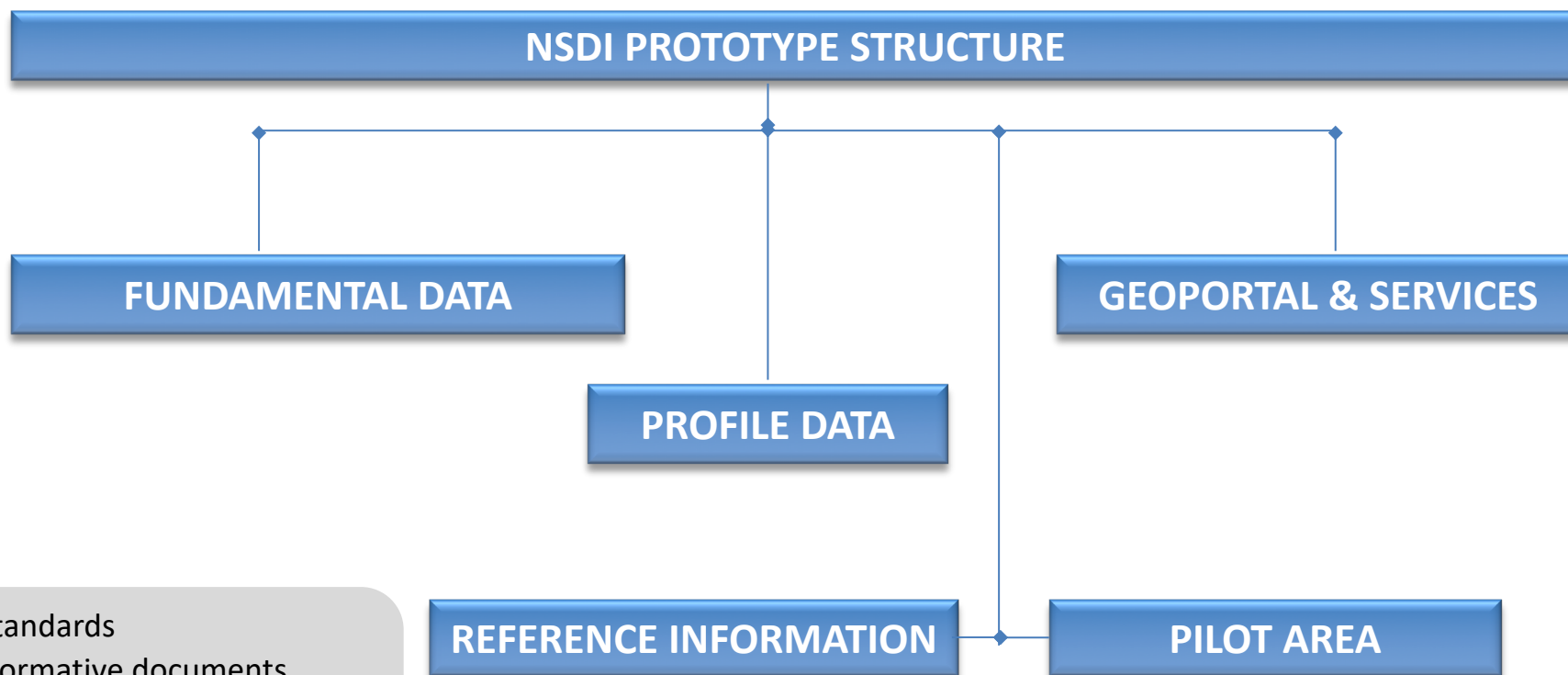
«Data Quality»  
**To be submitted after approval of the Rules**

«Geo-Information Product Specification»  
**To be submitted after approval of the Rules**

**The Law on Ukraine on Standardization**

## Component 4

### Prototype of National Spatial Data Infrastructure



- Standards
- Normative documents
- INSPIRE Directive
- EuroGeographics Projects
- User manual



## FUNDAMENTAL DATA

## Coordinate-spatial base of geospatial data

## Administrative-territorial units

## Hydrography

## Street-road network of settlements

## Industrial, agricultural and social objects

## Buildings and structures

## Automobile roads

## Railways

## Engineering and communications

## Airports, sea and river ports

## Vegetation and soils

## Boundaries of land parcels

## Settlements zoning plans

## Registers of streets and addresses

## Geographical names

## Digital relief model

## Ortophoto, aerial and satellite images

## PROFILE DATA

## Demography

## Taxation zones

## Street network condition

## Public hearings objects

## Election districts



# Example of Data in the NSDI Prototype



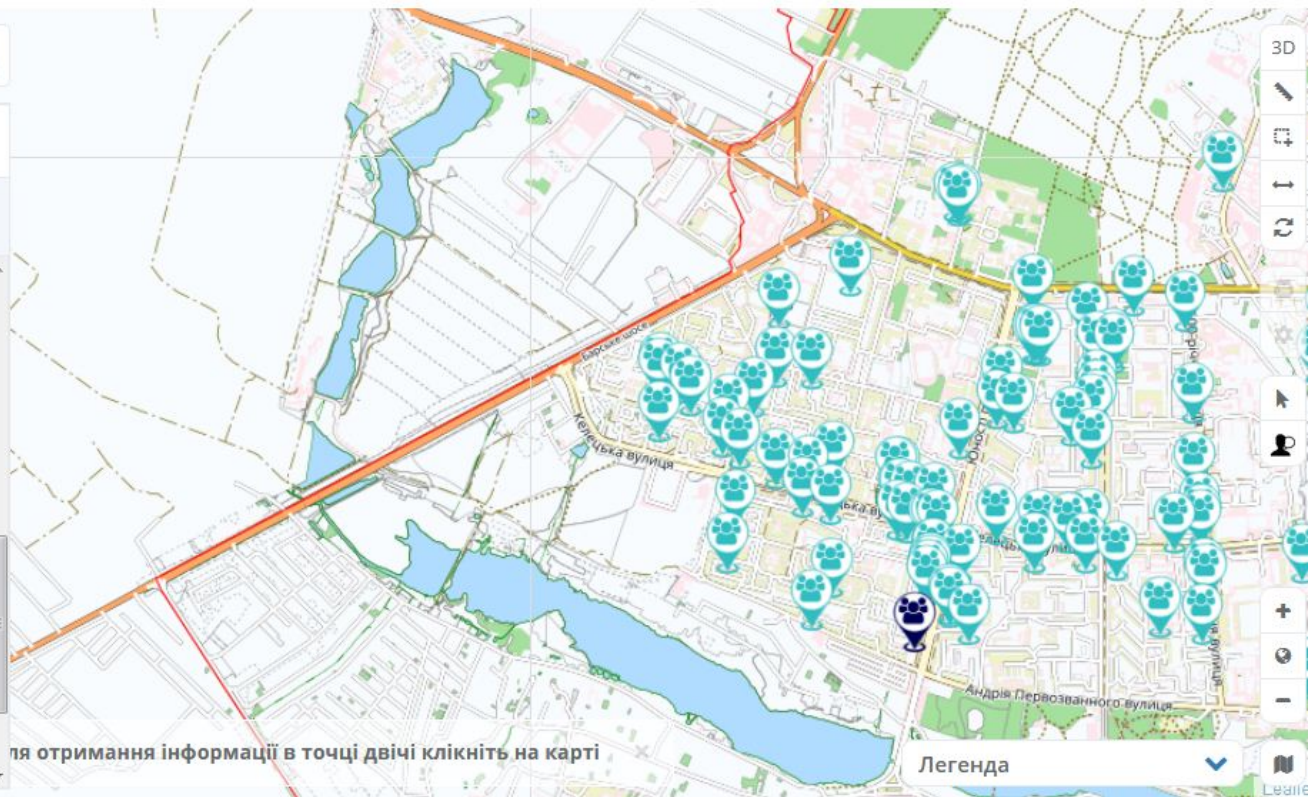
- Topographic Plan
- Agricultural, industrial and social cultural objects
- Metadata
- Pilot Project Area
- Utilities
- Taxation zones
- Hydrography
- Traffic accidents
- Public hearings objects

Пошук за назвою...

Набір шарів

+ Додати Оновити

- Залізничі 100
- Інженерні комунікації 100
- Аеропорти, морські та річкові порти 100
- Рослинний покрив та ґрунти 100
- Дані про стан вулично-дорожньої мережі 100
- Демографія 100
- Виборчі округи 100
- Дорожньо транспортні пригоди 100



- Transformation service
- Metadata editor
- Metadata validation
- Search service
- Access
- Geospatial data sets overview
- Overlap analysis
- Buffer analysis
- Network analysis

## CHALLENGES WITH GEOSPATIAL INFORMATION:



**Draft NSDI law was approved by the Cabinet of Ministers and submitted to the Parliament**



**Awareness about NSDI among stakeholders was raised**



**New unconnected geo-portals are being created by different stakeholders in Ukraine**



**Coordination Framework for NSDI establishment was created**



**Standards for Geospatial information were drafted and submitted for approval**



## LEGAL BACKGROUND FOR NATIONAL SPATIAL DATA INFRASTRUCTURE



### NSDI Law

- General Concept
- Players
- Data Sets
- Management & Authority
- Coordination & liability



### Order for NSDI conducting

- NSDI Administrator activities
- Transferring of fundamental data
- List of Geospatial Data the access to which should be provided by data holders
- Access of users to geospatial data
- Interaction of data holders, producers, users and administrator
- Data that are created by municipalities



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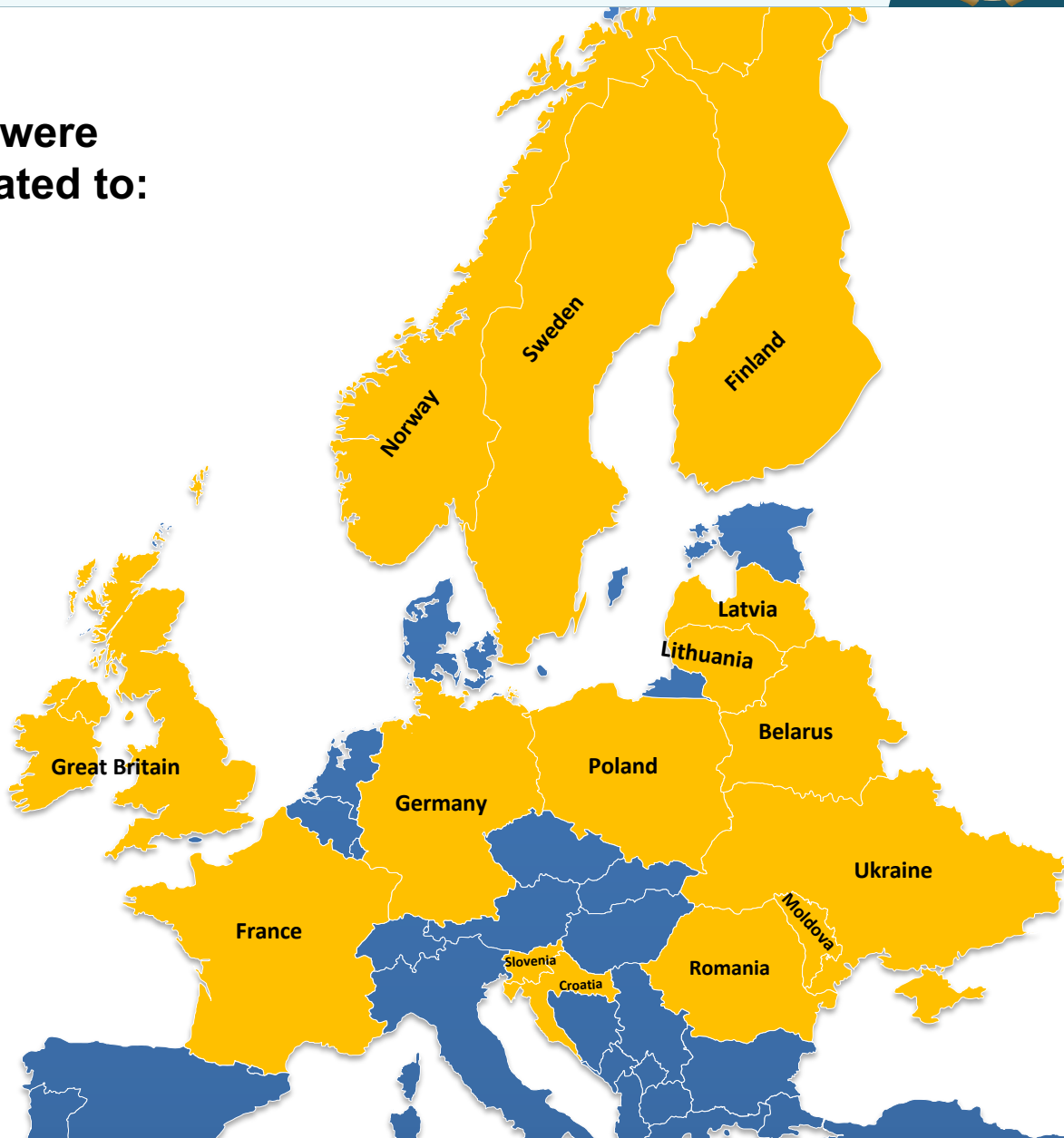
Conferences from 2015 were organized in Kyiv dedicated to:

**INSPIRE**

**Coordination in NSDI**

**Strategy in NSDI**

**Best NSDI approaches  
all over the world**







STATEGEOCADASTRE

# Thank you!

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