

# INSPIRE IMPLEMENTATION IN ROMANIA

OCTOBER 2015

# WHAT IS INSPIRE

- *Directive 2007/2/CE of the European Parliament and of the Council of 14 March 2007 establishing an infrastructure for Spatial Information in the European Community (INSPIRE)*
- Mandatory requirement that every member state develops its own national spatial data infrastructure (NSDI);
  - allows to efficient put together geographical data at local and cross-border level;
  - Romanian contribution to the establishment of the infrastructure for spatial information in the European Community – INSPIRE;
- INSPIRE envisages both technical and non-technical aspects, from standards, organizational and procedural issues and data policy to creation and maintenance of electronic services;

# WHAT IS IMPORTANT?

- **To know what data we own** and to avoid duplication – *Involves collection and dissemination of metadata;*
- **To use common reference data** – in this way we will know that we speak about the same location – *Requires contracts between different departments regarding the connection mechanisms such as the reference coordinate system, cadaster reference, addresses etc.*
- **To share information related to location** – can be done easily, through a common infrastructure of standards, technologies – *Requires on going mechanisms for standards maintenance etc.*
- **To have necessary capacity**, professionals in the field of geographical information as well as experts from other professional groups who use information related to location or support their use – *Requires a vast programme of education and awareness at all levels.*
- **To have solid management and government capacity** in order to cope with the changes regarding INSPIRE implementation.
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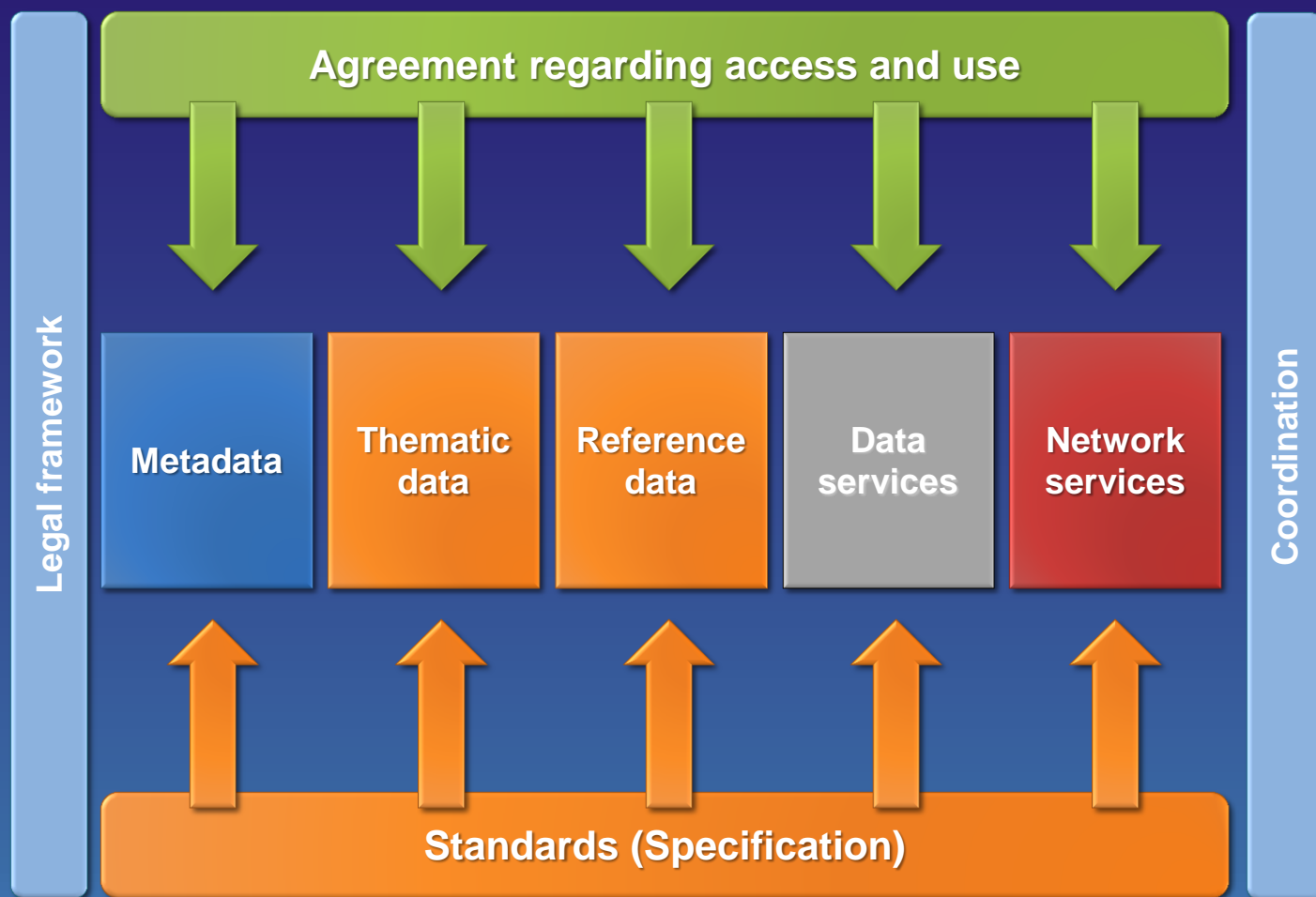
# What is defining INSPIRE?

- Metadata;
- Interoperability of spatial datasets and services;
- Services (discovery, view, download, transformation, invoke) available through European Geo-portal;
- Sharing the spatial data and services (policy);
- Coordination and measures for monitoring and reporting;

# INSPIRE Transposition

- Government Ordinance 4/2010 regarding establishment of national spatial information infrastructure (INIS) in Romania, republished
- General objective is to facilitate public access to existent spatial data and put together resources and services for enforcing development policy and environment policy using minimal resources
- Subsequent Acts:
  - Government Decision no. 493/2010 regarding approval of Regulation for organization and functioning of INIS Council
  - Draft of Government Decision regarding assignment of public authorities responsibility

# Which are the components of INIS/ INSPIRE?



# INIS Functionality

## Coordination structure:

**INIS Council** – COORDINATION structure for establishment and maintenance of national spatial information infrastructure (INIS) in Romania

**INIS Council Presidentship and Secretariat** – National Agency for Cadastre and Land Registration – contact point for EC

**INIS Council Vice-presidency** – Ministry of Environment and Climatic Changes

# INIS Benefits



- *Coordination among public authorities for putting together data*
- *Increase services quality and efficiency*
- *Standards harmonization*
- *Facilitating an open and transparent decision making process*



- *Services for citizens and business environment*
- *Efficient use of state resources*
- *Identification and access to spatial information from many sources, from local to global level*
- *Interoperability for various users*



- *Instrument for research, spatial analysis and modelling*
- *Support for environment protection and competitive economy*
- *Create opportunities for services development*
- *Increase security and citizens protection*





# National Geoportal



**SEARCH**

**SITE NAVIGATION**

- About INSPIRE
- Legislation
- INSPIRE RoadMap
- INSPIRE Geoportal
- INIS Council
- About GeoPortal

**FUNCTIONALITY**

- Discovery
- Viewer
- Metadata Editor
- Metadata Validation

**PARTICIPATE**

We believe the active involvement of a people interested in NSDI helps enrich the portal and aggregate important national spatial data information. [How to get involved...](#)

**SITE STATISTICS**

Online users: 82  
Registered users: 992

**Welcome to Romanian INSPIRE Geoportal**

In Europe a major recent development has been the entering in force of the INSPIRE Directive in May 2007, establishing an infrastructure for spatial information in Europe to support Community environmental policies, and policies or activities which may have an impact on the environment. INSPIRE is based on the infrastructures for spatial information established and operated by the 27 Member States of the European Union.

The Directive addresses 34 [spatial data themes](#) needed for environmental applications, with key components specified through technical implementing rules. This makes INSPIRE a unique example of a legislative "regional" approach...

In this context, **INIS Geoportal** is ensuring interoperability and expanding the acces to spatial data, metadata, web services and applications as part of the romanian national spatial infrastructure...[find out more](#).

**NEWS | EVENTS**

Currently there is no news.

**CALENDAR**

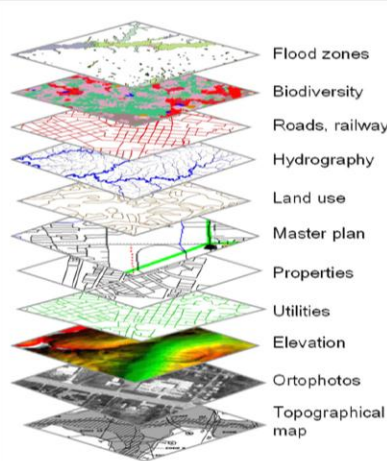
June 2013

Mo	Tu	We	Th	Fr	Sa	Su
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30

**POLL**

Currently, there is no survey.

## Maps



- ANCPI ensures access to metadata, spatial data sets and services through INIS geoportal
- Geoportal link:  
<http://geoportal.ancpi.ro/geoportal>  
(Romanian and English)
- Spatial data types provided by the organizations can be used simultaneously as layers in different user applications
- National point of access, connected to INSPIRE geoportal of EC;
- Geoportal search service ensures access to resources (data sets/ services) available at Romania level – visual impact of results of INSPIRE monitoring report

# Geoportal Functionality

INIS Geoportal offers the following functionality:

- *Metadata publication services*
- *View services*
- *Discovery services*
- *Transformation services*
- *Download services*

# METADATA

## ➤ Metadata

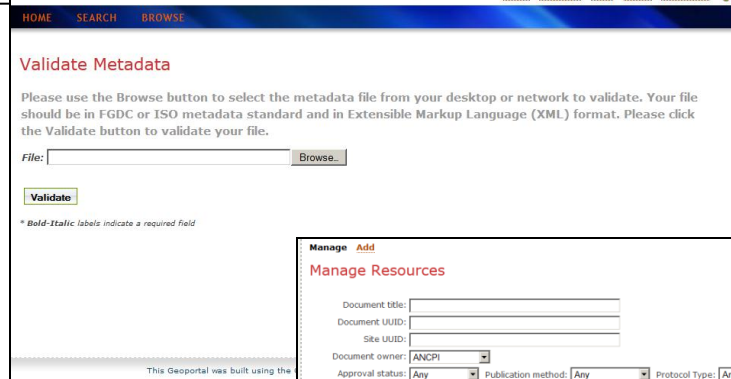
- Information about data: content, quality, conditions for use and other characteristics of data.
- Represent the totality of information used to clearly and coherently describe data (spatial data sets / services).

➤Service for metadata publication has 3 modules:

➤Metadata Editor – ensures compliance with Regulation for Metadata

➤Metadata Validator

➤Metadata Management



**Manage Add**

**Manage Resources**

Document title:

Document UUID:

Site UUID:

Document owner:

Approval status:  Publication method:  Protocol Type:

Update date between:  and  (yyyy-mm-dd)

For selected records:

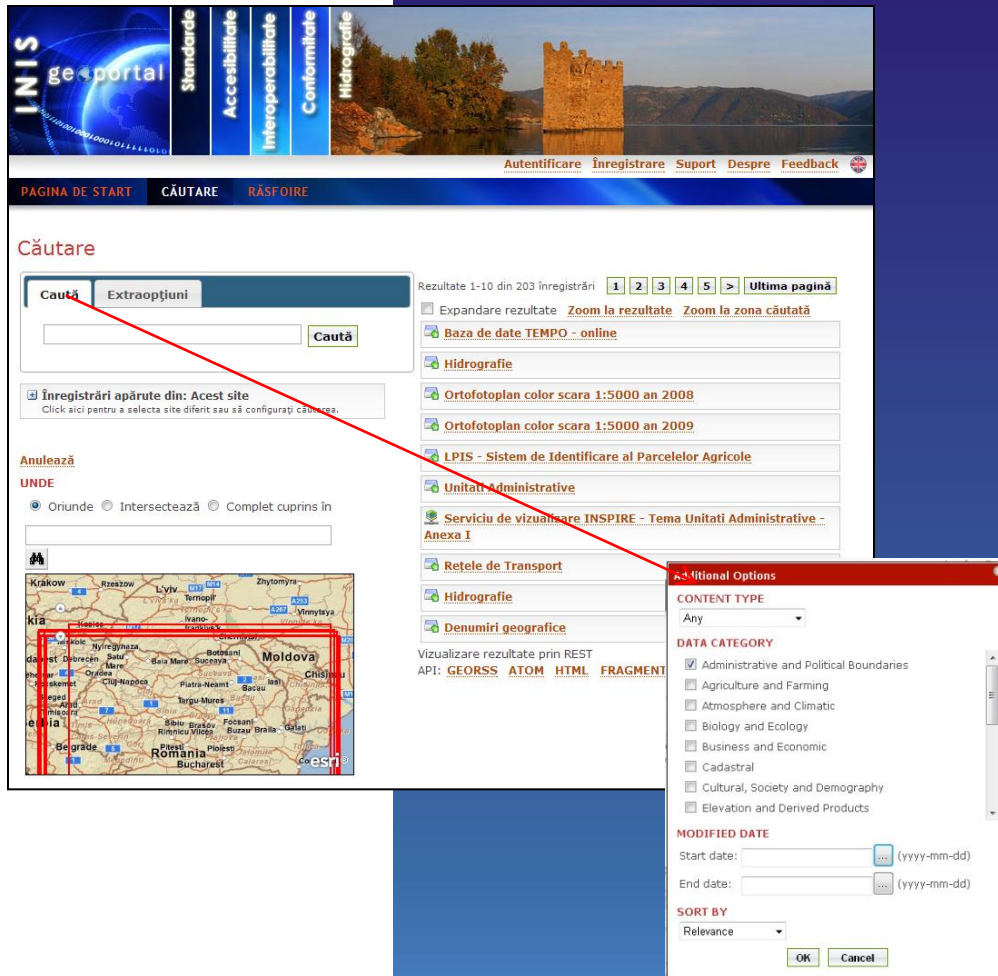
Results 1-50 of 66 record(s)

Action	Title	Owner	Status	Method	Date	Access
<input type="checkbox"/>	Plan topografic digital scară 1:2000 pentru Județul Giurgiu	ANCPI	Posted	Editor	2012-05-30	Unrestricted
<input type="checkbox"/>	Ortofotoplan color scară 1:5000	ANCPI	Approved	Editor	2012-04-19	Unrestricted
<input type="checkbox"/>	Tunel de tip linie TOPROS	ANCPI	Approved	Editor	2012-04-10	Unrestricted
<input type="checkbox"/>	Ortofotoplan color scară 1:2000	ANCPI	Approved	Editor	2011-10-05	Unrestricted
<input type="checkbox"/>	Hartă cadastrală de ansamblu scară 1:5000, 1:10000, 1:20000, 1:25000	ANCPI	Approved	Editor	2011-10-05	Unrestricted
<input type="checkbox"/>	Drumuri de tip linie TOPROS	ANCPI	Approved	Editor	2011-10-05	Unrestricted
<input type="checkbox"/>	Limita administrativă TOPROS	ANCPI	Approved	Editor	2011-09-29	Unrestricted

# Discovery Service

- Ensures searching resource catalogue using various criteria:

- Resource name
- Spatial extension of map (with following option for spatial query: *Wherever, Intersection*)
- Extraoptions including searching after: *Type of content, Category of data, Data for modification of resource*

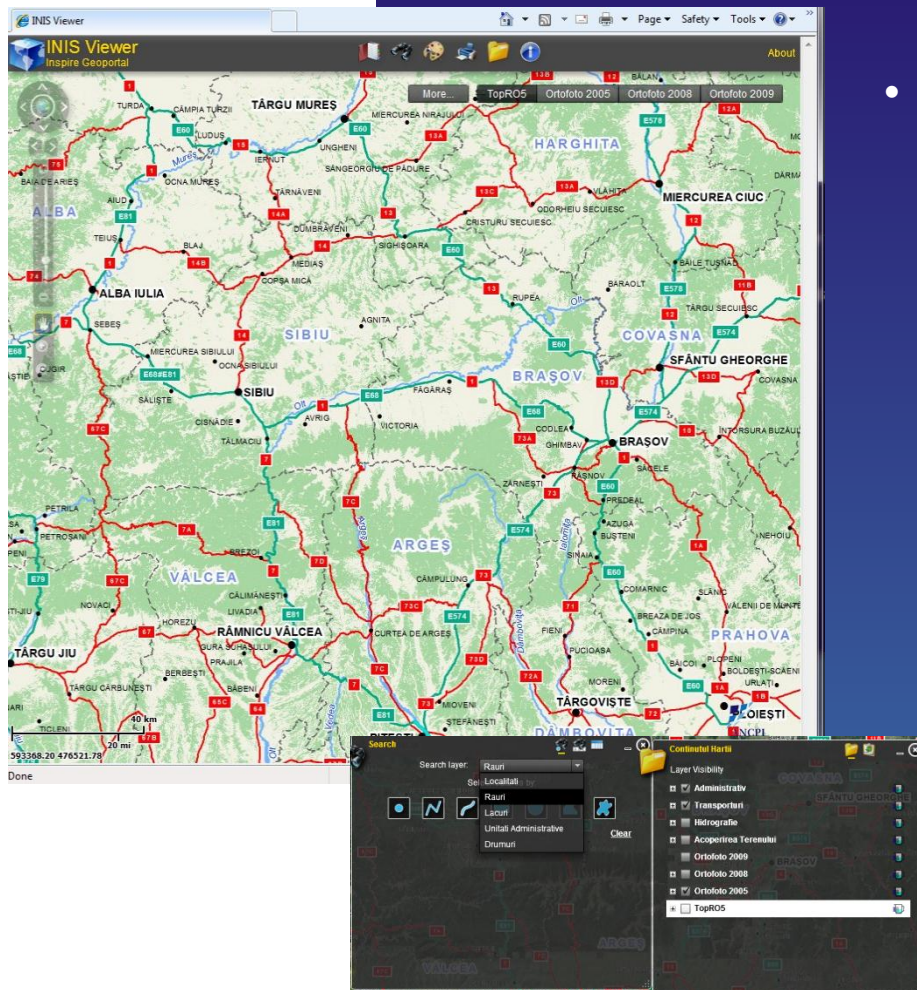


The screenshot displays the INIS geportal interface. At the top, there's a navigation bar with links like 'Pagina de start', 'Căutare', and 'Răspunde'. Below this, the 'Căutare' (Search) section is highlighted with a red box. It includes a search input field, a 'Caută' button, and a list of search results. A red arrow points from the 'Caută' button to the 'Additional Options' dialog box, which is open on the right side of the screen. This dialog box contains various search criteria: 'CONTENT TYPE' (Any), 'DATA CATEGORY' (Administrative and Political Boundaries, Agriculture and Farming, Atmosphere and Climatic, Biology and Ecology, Business and Economic, Cadastral, Cultural, Society and Demography, Elevation and Derived Products), 'MODIFIED DATE' (Start date, End date), and 'SORT BY' (Relevance). The dialog box also has 'OK' and 'Cancel' buttons.



# INIS View Application

- View resources TopRO5, ortho imagery 2005, 2008, 2009, 2010-2013
- Available tools - TopRO5:
  - Spatial searching in available layers of TopRO5: *Localities, Rivers, Lakes, Administrative units, Roads;*
  - Searching using name of the element in available layers of TopRO5
  - Map content, legend and layers transparency
  - Identification
  - Book sign
  - Printing
  - Drawing
  - Measuring



# Transformation application



The screenshot shows the INIS geportal website. The header includes the INIS logo, navigation links (Standarde, Accesibilitate, Interoperabilitate, Conformitate, Hidrografie), and a banner image of a bridge. Below the header is a navigation bar with links: PAGINA DE START, CĂUTARE, RĂSFOIRE, ADMINISTRARE, DESCĂRCARE, and TRANSFORMARE COORDONATE. The main content area is titled "Serviciu de transformare coordonate INSPIRE". It features a dropdown menu for "Direcție transformare:" set to "Stereo70 -> ETRS89", a button "Alegeți fișierul", and a "Transforma" button. To the right, there is a list of instructions for using the service.

**Serviciu de transformare coordonate INSPIRE**

Pentru a realiza transformarea de coordonate între sistemul de coordonate Stereo70 și ETRS89 trebuie să urmați procedura de mai jos:

1. Exportați setul de date în formatul shapefile
2. Arhivați setul de date rezultat incluzând toate fișierele
3. Alegeți în interfață direcția de transformare: din Stereo70 în ETRS sau din ETRS în Stereo70
4. Faceți clic pe butonul Choose File și navigați la locația fișierului arhiva pentru a-l selecta
5. Faceți clic pe butonul Transforma pentru a inițializa procesul de transformare
6. La finalizare descărcați arhiva rezultată ce conține setul de date transformat

- Allows coordinate transformation between national coordinate system Stereografic 1970 and ETRS89 and vice versa.
- Supports shape format for input data.

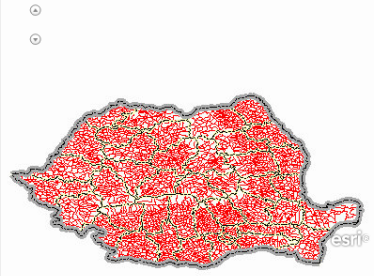
# Download Application

PAGINA DE START CĂUTARE RĂSFOIRE ADMINISTRARE DESCĂRCARE TRANSFORMARE COORDONATE

**Descarcă**

Step 1: Zoom in și selectați o zonă

Pan/zoom cu Desenați aria dorită:



Step 2: Selectare Date

☐ NUTS Region  
☐ Condominium

**Administrative unit**

☐ Administrative unit 1st Order  
☐ Administrative unit 2nd Order  
☐ Administrative unit 3rd Order  
☐ Administrative unit 4th Order  
☐ Administrative unit 5th Order  
☐ Administrative unit 6th Order

**Administrative boundary**

☐ Administrative boundary 1st Order  
☐ Administrative boundary 2nd Order  
☐ Administrative boundary 3rd Order  
☐ Administrative boundary 4th Order  
☐ Administrative boundary 5th Order  
☐ Administrative boundary 6th Order

Step 3: Completați detaliile și dați click pe "Descărcare"

e-mail:

Feature format:

Raster format:

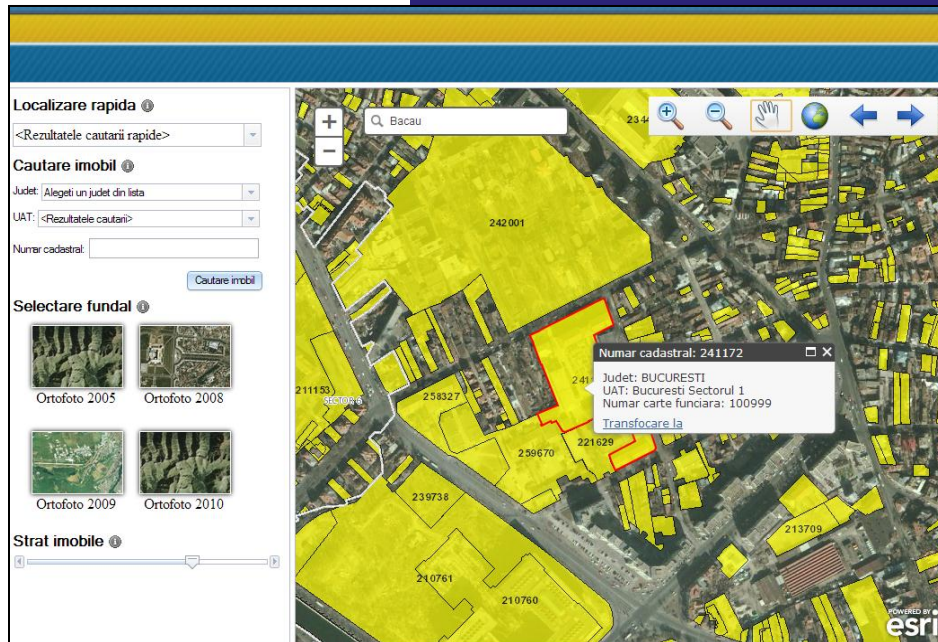
**Descărcare**

- Allows administrative boundaries download in various formats *shape, dxf, file geodatabase, dgn*, after user authentication;
- Selection criteria for download:
  - *Zone of interest*
  - *Hierarchical Order within territorial administrative of Romania*

<http://geoportal.ancpi.ro/geoportal/catalog/download/download.page>



# Immovables View Application



- View *Immovables*, *Administrative boundaries*, *ortho imagery 2005*, *2008*, *2009*, *2010*
- Available tools:
  - Quick search using name of a locality or name of a street
  - Search immovable using name of the county, UAT and cadastral number
  - Layer transparency
  - Immovable identification by clicking the respective immovable

<http://geoportal.ancpi.ro/geoportal/imobile/Harta.html>



## ***„INSPIRE – Coherent fundamental decisions at national level, a unitary European framework”***

- **General Objective** of the project is to enhance quality and efficiency of services provision;
- **Scope of the project** is to create the technical and legal framework needed for the establishment of spatial data infrastructure in Romania in order to comply with the European exigencies required by INSPIRE Directive.
- **Target group:**
  - Spatial data managers;
  - Persons who practice liberal professions;
  - Private firms/companies;
  - Romanian citizens.

## ***„INSPIRE – Coherent fundamental decisions at national level, a unitary European framework”***

- Expected results:
  - Legal framework
    - INSPIRE Strategy
    - Drafts of Acts regarding fees policy, data exchange policy and spatial data sets access policy.
    - Technical framework – activities
    - Inventory of data managers in Romania;
    - Collection/generation of metadata related to spatial data sets which are included in INIS
    - Development of services for information and correlation of cadastral information within the context of INSPIRE Directive.

## ***„INSPIRE – Coherent fundamental decisions at national level, a unitary European framework”***

- New technical framework which allows unitary coordination of different aspects of spatial data owned by spatial data managers:
  - technical aspects regarding interoperability;
  - use of data services;
  - principles that are governing data access and related costs;
  - national coordination;
  - access facilitated to a series of information which will ease data searching and data quality valuation.

# Conclusions



- COLLABORATION IS THE KEY OF SUCCESS
- DATA ARE PRODUCED AND MAINTAINED AT THE LEVEL OF THE RESPONSIBLE CENTRAL/LOCAL AUTHORITY
- DATA REMAIN IN PROPERTY/ADMINISTRATION OF PRODUCERS/MANAGERS
- ANCPI ENSURES COORDINATION, INTEGRATION AND TECHNICAL SUPPORT THROUGH GEOPORTAL

Thank you!