

# GEOINFORMATION & INSPIRE IN BULGARIA









#### **INSPIRE**

#### INFRASTRUCTURE FOR SPATIAL INFORMATION IN EUROPE

INSPIRE defines common rules for the creation of an infrastructure for spatial information in Europe;

INSPIRE is based on an infrastructure for existing spatial information, which is managed by the Member-States;









#### INSPIRE

### INFRASTRUCTURE FOR SPATIAL INFORMATION IN EUROPE (2)

INSPIRE is a distributed infrastructure;

INSPIRE does not require collection of new spatial data;

INSPIRE does not affect the existing intellectual property rights;

INSPIRE provides for data sharing and establishment of an infrastructure for spatial data at European level.









#### WHAT IS "INFRASTRUCTURE FOR SPATIAL INFORMATION"?

- metadata;
- spatial data sets and services for spatial data;
- network services and technologies;
- agreements on sharing, access and use;
- mechanisms of coordination and monitoring;
- Processes and procedures.

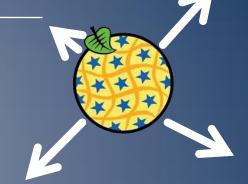








## VISION OF THE INSPIRE DIRECTIVE 2007/2/EO



Ensures transparency of the environmental policy, since the Directive makes the environmental data publicly available.

Removes the barriers before the use of spatial data, since the infrastructure ensures their exchange between the individual institutions within each state and between the states themselves.

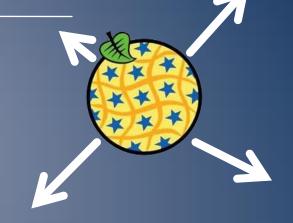








## VISION OF THE INSPIRE DIRECTIVE 2007/2/EO (2)



Demonstrates the extremely high potential of spatial data and geo-information and enables the ordinary user to use them.

Serves the citizens, science, economy and governance.

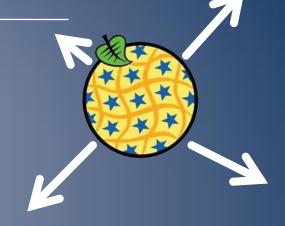








## VISION OF THE INSPIRE DIRECTIVE 2007/2/EO (3)



Serves planning and decision-making, related to spatial information.

Gives security to investments since it requires continuous updating of spatial information.









Europe2020 strategy objectives contain many aspects requiring information at local level and European statistics have become increasingly important for the development, implementation, monitoring and evaluation of EU policies.

strategy

strategy

In the end of January 2012 NSDI Co-ordination Unit received a suggestion that the ESSC should take a leading role in further awareness-raising and coordination of an increased integration of two sources of information, geospatial and statistical, which ultimately would lead to an increased capability to monitor and understand human and natural phenomena, reduce burdens related to duplications of efforts and provide better information for policy making.









#### The suggestion is that:

- The ESSC becomes the only comitology committee for the ESS, dealing with all the comitology issues and with the power to take the final decision.
- All the other comitology committees cease to exist and their portfolio of responsibility is transferred to the ESSC.







The integration of geographical and statistical information, although not void of major challenges, offers important opportunities to maximize the utility of data collected by statistical offices.

In this context, the INSPIRE Directive, currently in its implementation phase, will facilitate the interoperability of this information.









#### **EUROPEAN FORUM FOR GEOSTATISTICS SOFIA CONFERENCE 2013**

#### Annex I

- 1. Coordinate reference systems
- 2. Geographical grid systems
- 3. Geographical names
- 4. Administrative units
- 5. Addresses
- 6. Cadastral parcels
- 7. Transport networks
- 8. Hydrography
- 9. Protected sites

#### Annex II

- 1. Relief
- 2. Land cover
- 3. Ortho imagery
- 4. Geology



#### 1. Statistical units

- 2. Buildings
- 3. Soil
- 4. Land use
- 5. Human health and safety
- 6. Utility and governmental services
- 7. Environmental monitoring facilities
- 8. Production and industrial facilities
- 9. Agricultural and aquaculture facilities
- 10. Population distribution demography
- 11. Area management / restriction / regulation zones and reporting units
- 12. Natural risk zones
- 13. Atmospheric conditions
- 14. Meteorological geographical features
- 15. Oceanographic geographical features
- 16. Sea regions
- 17. Bio-geographical regions
- 18. Habitats and biotopes
- 19. Species distribution
- 20. Energy resources
- 21. Mineral resources









#### **EUROPEAN FORUM FOR GEOSTATISTICS SOFIA CONFERENCE 2013**



#### D2.8.III.1 Data Specification on Statistical Units – Draft Guidelines

Title D2.8.III.1 INSPIRE Data Specification on Statistical Units – Draft Guidelines

Creator INSPIRE Thematic Working Group Statistical Units

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Statistical Units

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Relation Directive 2007/2/EC of the European Parliament and of the Council of 14 March 2007

establishing an Infrastructure for Spatial Information in the European Community

(INSPIRE)

Coverage Project duration

This document specifies a harmonised data specification for the spatial data theme Statistical Units as defined in Annex III of the INSPIRE Directive.

This data specification provides the basis for the drafting of Implementing Rules according to Article 7 (1) of the INSPIRE Directive [Directive 2007/2/EC].









A Statistical Unit (SU) is a spatial feature (Polygon, Line, Point or Grid cell) that can be used to attach statistical information. Statistical information can be defined as "any numerical representation of a phenomenon".

All INSPIRE features can be seen as a statistical unit. For example road traffic data can be attached to Road Link features of the Road Transport Networks theme; population data can be attached to Building features of the Building theme.

Statistical units theme addresses the units that are not already addressed by other themes and that are usually used only for dissemination of statistical data.









#### Uses of statistical units:

- national governments;
- administrative units;
- population distribution/demography;
- settlement, urban and regional development;
- geographical grids;
- health;
- risks assessment, mainly in connection with population distribution;
- as a needed geometry for thematic presentations;
- a basis for joining, aggregation and presentation of maps for nearly any theme or sector-specific issue etc.









### The exploitation of the geographic dimension of statistics can be used:

- to facilitate the analysis of statistical data (e.g. error detection, spatial patterns, correlations);
- to create new, specifically defined indicators on the basis of existing statistical and geographical information;
- to provide more meaningful information, especially in domains such as transport or environment;
- to open up a wide range of new possibilities to better understand environmental, social and economic phenomena, analyse correlations or trends and ultimately better support the development of European policies;
- to provide opportunities to maximize the utility of data collected by statistical offices.









Statistical units are necessary as geographical features also in environmental and social assessments.

Statistical units can be used as the geographical basis for the research on nearly any phenomena.

They are of major importance to integrated analysis for sectors and regions.









• Statistical information is not considered as part of the statistical unit. It is a non-spatial thematic information, whose harmonization is out of the scope of INSPIRE and specifications from statistical units. For this information we can refer to the specification of the INSPIRE theme Population Distribution.

 This document only focuses on the representation of the spatial features used to attach any kind of statistical data.







Statistical unit

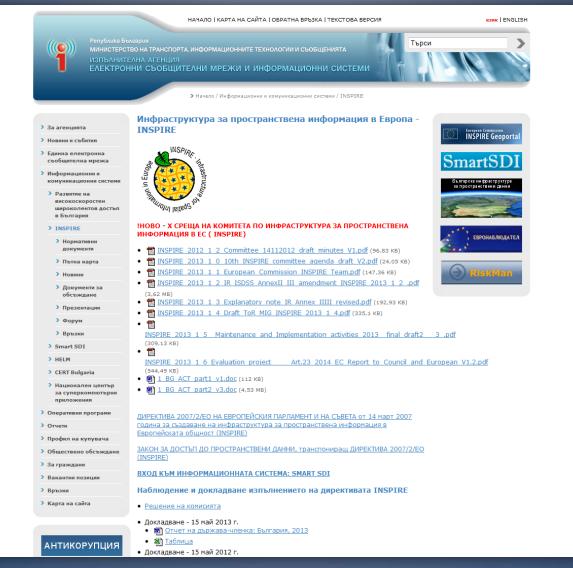
345.324 km

True

Statistical data



#### **EUROPEAN FORUM FOR GEOSTATISTICS SOFIA CONFERENCE 2013**











#### STATE ADMINISTRATIONS – MINISTRIES AND AGENCIES ADMINISTER A LARGE SET OF SPATIAL DATA, GENERATED UNDER VARIOUS LAWS.

- Leading ministries are: Ministry of regional development, Ministry of agriculture and food, Ministry of Environment and Water, Ministry of transport, information technology and communications;
- Leading agencies: Agency of Geodesy, Cartography and Cadaster, Executive Environment Agency, Executive Agency on Soil Resources, Executive Agency on Forests and others;
- Directorates: River Basin Directorate to MOEW, MOEW Rila National Park Directorate, MOEW - Pirin National Park Directorate, MOEW - Central Balkan National Park Directorate, MOEW - National Service of Environmental Protection, Executive Agency "Exploration and Maintenance of Danube River" to MTITC, directorate "Natural resources and concessions" to Ministry of Economy and Energy;
- State enterprises: Bulgarian Ports Infrastructure Company and National Railway Infrastructure Company to MTITC.









## MONITORING DATA FOR 2013:

Available spatial data sets as of 15.05.2013 – 549 in different formats – ZEM, AutoCAD DWG, AutoCAD DXF, TIFF, Shape, etc.

Lack of metadata for the sets and services. Only two state structures declare that they have metadata in compliance with ISO standard;

The basic services provided are VIEW and DOWNLOAD, but they are in conformity with the standards and regulation on services. Exceptions are MOEW u EEA, which state that their services meet ISO standard;

The communication networks of the state structures use TCP/IP for data transmission

Private telecommunication networks are used for long-distance connectivity.









## APPROVED PROJECT OF EA "ECNIS" UNDER OPERATIONAL PROGRAMME "ADMINISTRATIVE CAPACITY" FOR BUILDING A NATIONAL PORTAL FOR SPATIAL DATA AND ACHIEVING INTEROPERABILITY OF DATA AND SERVICES, APPLYING THE REQUIREMENTS

Establishment of a national portal for spatial data for provision of network services to the state administration, citizens and business;

Building the necessary standard and interoperable information and communication environment at national level for access from administrators and users of spatial data;

Studying and implementation of European requirements for harmonization of spatial data and services with them aimed at including our country in building the European infrastructure for spatial information;









## APPROVED PROJECT OF EA "ECNIS" UNDER OPERATIONAL PROGRAMME "ADMINISTRATIVE CAPACITY" FOR BUILDING A NATIONAL PORTAL FOR SPATIAL DATA AND ACHIEVING INTEROPERABILITY OF DATA AND SERVICES, APPLYING THE REQUIREMENTS (2)

Improving the qualification of the expert staff of the state and municipal administration for effective provision of services with spatial data;

Promoting ideas, objectives and principles of usage of spatial data as part of electronic governance at national and European level for more effective public governance.









#### **THANK YOU FOR YOUR ATTENTION!**

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