



**INSPIRATION** – Spatial Data Infrastructure in the Western Balkans



# INSPIRATION

## Outputs and results of the project

Fritz Kroiss

E&I Workshop: Support to INSPIRE implementation  
in enlargement and ENP countries

JRC Ispra, 29 January 2014

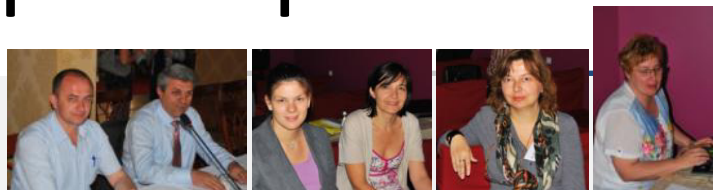


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# Who participated

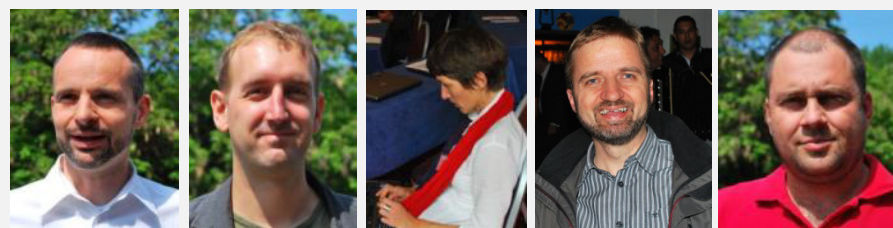
- You!



- Beneficiaries of the project INSPIRATION

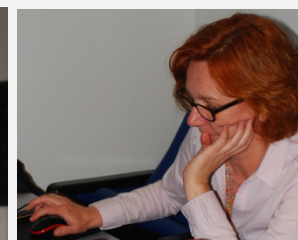
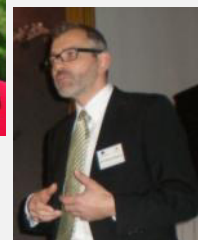


and



- Project team

- Happy to have been part of the story!



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# Primary Beneficiaries

- RGA Serbia
- REA Montenegro
- AREC FY Republic of Macedonia
- KCA Kosovo\*
- RAGPA RS Bosnia and Herzegovina
- FAGRPA FBiH Bosnia and Herzegovina
- SGA Croatia
- IPRO Albania

\*This designation is without prejudice to positions on status, and is in line with UNSCR 1244/99 and the ICJ Opinion on the Kosovo declaration of independence.



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# Project Team

- Two key experts
  - **Fritz Kroiss, Ivica Skender**
- Short Time Experts
  - **Christian Ansorge**, Andreas Wytzisk, Martin Koška, Ulrich Roth, Bojana Klepač Pogrmilović, Clemens Konrad, Sören Dupke, Manfred Oepen, Tomaž Petek, Peter Mozolik, Željko Bačić, Vesna Poslončec Petrić, Fisnik Loshi, Ivan Aleksić, Gezim Gjata, Vukan Ogrizović, Vančo Georgiev, Lubomila Popova, Dino Rastoder, Tijana Andrejić, Jasna Radman, Kenan Kurtović, Zoran Dervišov
- Project office manager
  - **Mariza Dujmović**



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# Project components

- 1. Legislative and institutional framework**
- 2. Capacity building and education**
- 3. Awareness raising and communication**



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**INSPIRATION** – Spatial Data Infrastructure in the Western Balkans



# 1. Legislative and institutional framework



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# Subactivities

- Regional Study & Recommendations
- 7 National Studies
- 2 Annual Regional Cadastral Studies supported
- Initiatives taken to set up joint regional structures

Legislative and institutional framework

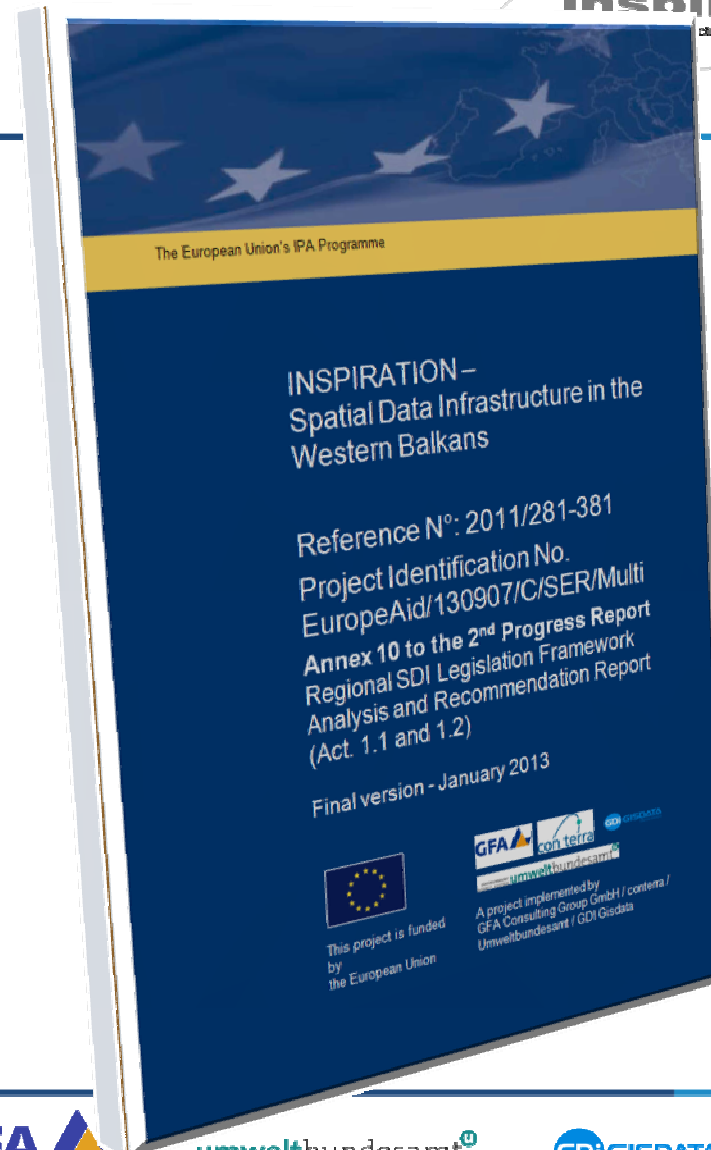


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# Regional Study & Recommendations



Legislative and institutional framework



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# INSPIRATION – Spatial Data Infrastructure in the Western Balkans

## 7 National Reports

**inspiration**  
Spatial Data Infrastructure in the Western Balkans



### INSPIRATION - National report REPUBLIC OF SERBIA

Author: Ivan R. Aleksic

#### Introduction

The study entitled INSPIRATION Country Report – SERBIA done within the framework of the project INSPIRATION – Spatial Data Infrastructure in the Western Balkans. Research and collection of materials were carried out in the period 2012-2013.

Terms of reference – TOR INSPIRATION – The Spatial Data Infrastructure Solution for Western Balkans (EC 2011) promotes:

- Spatial data infrastructure (SDI);
- Coordinate their construction in Southeastern Europe;
- With the idea of preparing users to comply NSDI with the objectives of the INSPIRE Directive.

In accordance with the TOR for INSPIRATION project (EC 2011, page 14) objectives of this report are:

- Create recommendations for the improvement of the legislative framework;
- Draft regulations for the NSDI users;
- Future harmonization with the INSPIRE Directive.

#### Methods

Methodology of the study is based on the research methods, data analysis, communication, discussion and analysis of realized questionnaire.

For research and analysis of data in the study has used:

- Official documents of the Government of the Republic of Serbia;
- Official documents of the Republic Geodetic Authority (RSA);
- Studies, reports, articles and presentations made by RSA;
- Studies and reports which have been made for the EU.

#### Conclusions

INSPIRE Directive 2007/2/EC of the establishment of the infrastructure for geospatial information within the European Community was partially transposed in legislation of Republic of Serbia.

#### Results / Recommendations

The results of studies relating to:

- Details of the implementation of the NSDI;
- Technical implementation of the NSDI;
- Recommendations for further development of the NSDI.

The legislative framework for the implementation of the NSDI in Serbia consists of the following documents:

- Law;
- Regulations;
- Strategies.

The most important legislation for NSDI in Europe and the Republic of Serbia are:

- INSPIRE Directive - EU;
- Law on State Survey and Cadastre - Serbia.

Geospatial in practical use, which contribute to the development of the NSDI in the Republic of Serbia, there are at levels: national, regional and local.

#### Methods


The national report is based on information gathered, processed and analyzed from different sources and combined with the synthesis of the acquired knowledge. Among other documents, we also used the official documents of the Council of Ministers of Bosnia and Herzegovina, the Republic Administration for Geodetic and Property Affairs of Republic of Srpska (RS RGA), the Administration for Geodetic and Property Affairs of the Federation of Bosnia and Herzegovina (FGU), the Public Registry of Brčko District and other public authorities in the Federation and Republic of Srpska, along with the studies and reports that have been made for the EU.

We also conducted interviews with several officials of FGU and RS RGA, Federal Ministry of Planning, the Department of Construction of Canton Sarajevo, Institute for Development Planning of Canton Sarajevo, employees of Civil Engineering - Department of Geodesy and practitioners who deal with spatial information and spatial data infrastructure available (IPP).

#### Interview

In order to supplement the draft-version of the national report, we used the comments and suggestions of entity representatives (IPP from RS and institutions involved in the collection, processing, storage and distribution of spatial data in the Federation) - at were present at a national workshop in the framework of INSPIRATION, 16.05.2013. - Hotel Euro-Mostar.

Geospatial of Belgrade - GIS service - Zone and plans of Belgrade - Regional level



### INSPIRATION - National report MONTENEGRO

Author: Ivan R. Aleksic

#### Introduction

The study shows the establishment of the National Spatial Data Infrastructure (NSDI) in Montenegro, which is based on INSPIRE principles. The objective is to create framework that facilitates data access to and use of geospatial information, through development of the system to support data harmonization and interoperability using standards.

The study provides a legislative framework necessary for the implementation of the NSDI in Montenegro which consists of:

- Official documents of the Government of Montenegro;
- Official documents of the Real Estate Administration (REA);
- Studies, reports, articles and presentations made by REA;
- Studies and reports which have been made for the EU.

#### Methods

Methodology of the study is based on the research methods, data analysis, communication, discussion and analysis of realized questionnaire.

Data in research and analysis were used from documents:

- Official documents of the Government of Montenegro;
- Official documents of the Real Estate Administration (REA);
- Studies, reports, articles and presentations made by REA;
- Studies and reports which have been made for the EU.

#### Conclusions

INSPIRE Directive 2007/2/EC of the establishment of the NSDI within the European Community was partially transposed in legislation of Montenegro.

Conclusions, recommendations and comments are provided in three areas: legislative, coordination and organization and technical implementation.

#### Results / Recommendations

Despite the complex political system, resulting in different levels of NSDI implementation, it should be noted that a large number of international, regional, state and entity projects do apply the standards set by the INSPIRE Directive. In due course, once an appropriate legal framework and social climate is created, we can expect these projects to be an integral part of the national infrastructure data.

1. (Draft) Law on Survey and Cadastre - with a chapter on setting up IPP - Prepared by Management for Geodetic and Property Affairs of the Federation.

2. (Draft) Law on Survey and Cadastre - with a chapter on setting up IPP - Prepared by Management for Geodetic and Property Affairs of the Federation.

3. (Draft) Law on Survey and Cadastre - with a chapter on setting up IPP - Prepared by Management for Geodetic and Property Affairs of the Federation.

#### Conclusion

So, what can we recommend to the two entities and Brčko District for better enforcement and establishing of NSDI?

As the Republic of Srpska has created the appropriate legislative framework and authorities for NPP, it would be desirable that IPP is "covered" by appropriate additional regulations and agreements on licensing and data sharing, where the NPP participants would commit to systematically work on its implementation.

We recommend that the establishment of NSDI in the Federation of Bosnia and Herzegovina and the Brčko District should start immediately by adopting appropriate legislations and creating a favorable environment for implementing the NPP.

#### Specialized thank you

National Communication of Bosnia and Herzegovina was created with the support of the most competent experts in the field of NSDI in Bosnia and Herzegovina the Republic of Srpska and the Republic of Serbia, we use this opportunity to thank the IPD director and the assistant director for Geodesy/Mapping at RS, Eastern Slavonia, Baranja and Western Sirmium (ESWS) and the assistant director for Geodesy/Mapping at RS, Eastern Slavonia, Baranja and Western Sirmium (ESWS) for their support during the preparation of this report. We also thank the assistance of ISM of each entity in their cooperation with special information.

Key role played in collection from the Institute of Geodesy and Surveying of Bosnia and Herzegovina, Federal Ministry of Planning, especially: Nela Petrović-Radošević and Jovana Štamenić who have shared their knowledge and expertise with us.

Thanks to INSPIRATION consortium for their support and cooperation in making this report possible.

#### Acknowledgements

The study was done with great support and assistance to the most competent experts in the field of NSDI from Real Estate Administration - Montenegro.

Thanks most sincerely for their commitment to the work: Dragana Petrović - director, Mirjana Ljubić, Jasmina Jakić and Jasna Stokić.

Thanks INSPIRATION consortium for their support, understanding, trust and patience in the process of making this study.

Legislative and institutional framework





# Step forward in legislation

- Croatia – Law in force
- Macedonia – Draft Law
- Kosovo\* – Draft Law
- Albania – New Law in force
- BiH, FBiH – Draft Law
- Serbia – WG established to prepare Draft Law

Legislative and institutional framework



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## Regional Level

- Initiatives taken to set up joint regional structures
  - Secretariat
  - Working Groups
  - Memorandum of Understanding
  - Metadata Portal
  - Project Web Page

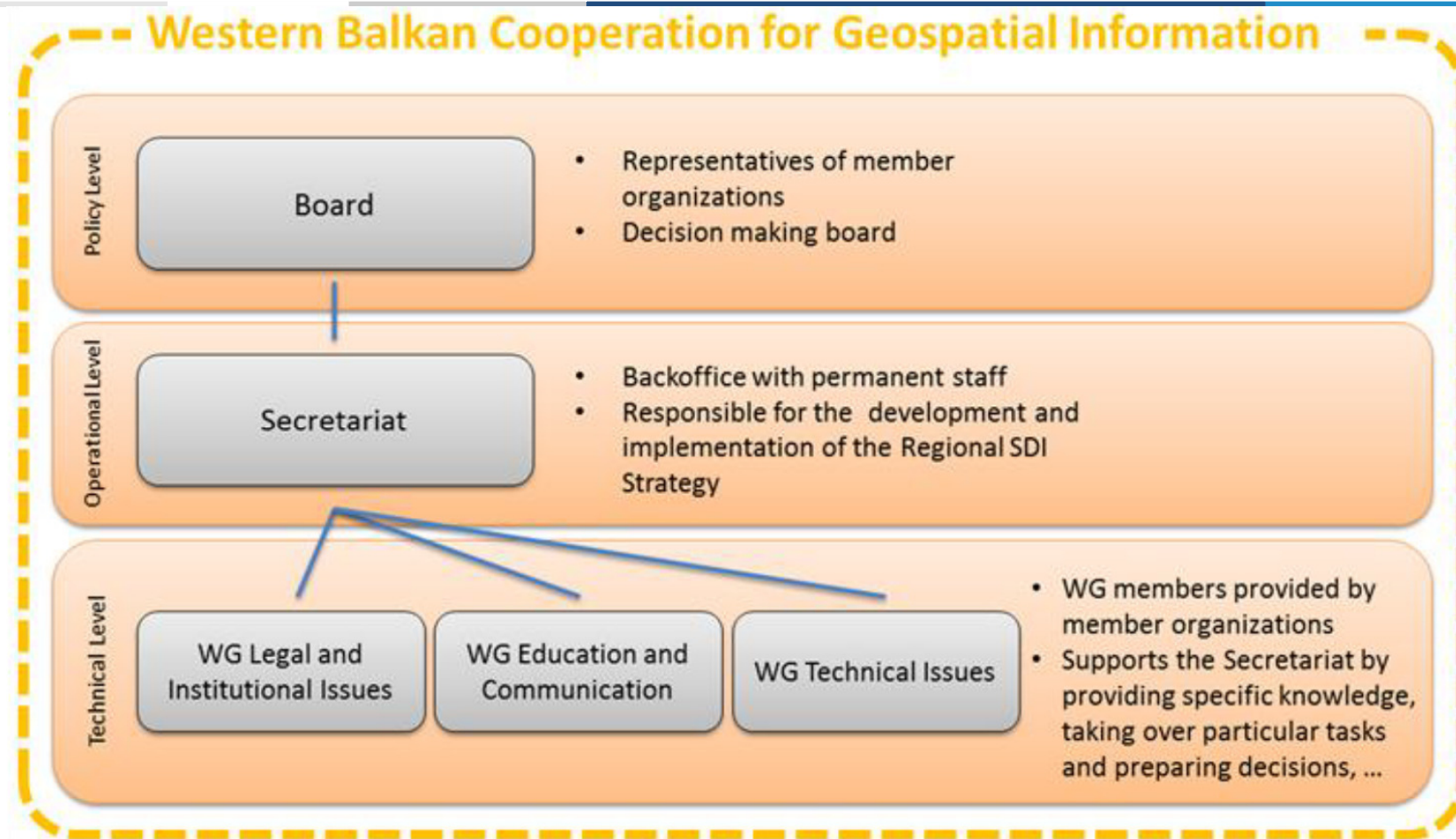
Legislative and institutional framework



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# Regional Level Recommendations



Legislative and institutional framework



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## Linking with regional processes

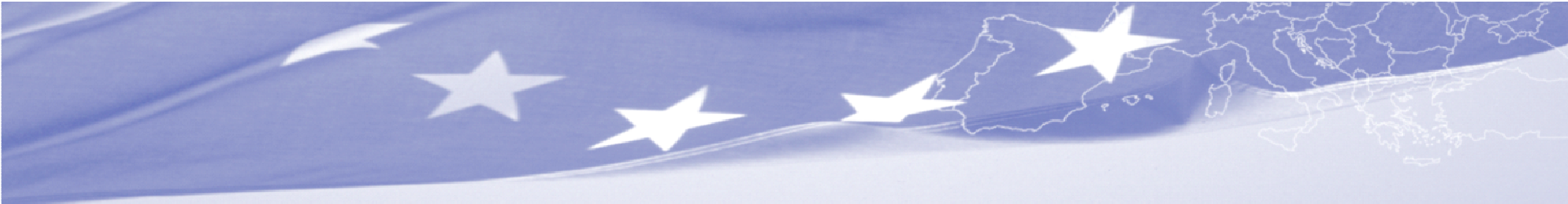
- Danube Strategy
- ReSPA
- RCC
- eSEE
- Nalas
- Balkan GeoNet
- Future cooperation with ECRAN ... ?

Legislative and institutional framework



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## 2. Capacity building and education



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# Subactivities

- Regional Study & Recommendations
- Regional Trainings
- National Workshops
- Regional Conference on Capacity Building
- Study Tour

Capacity building and education



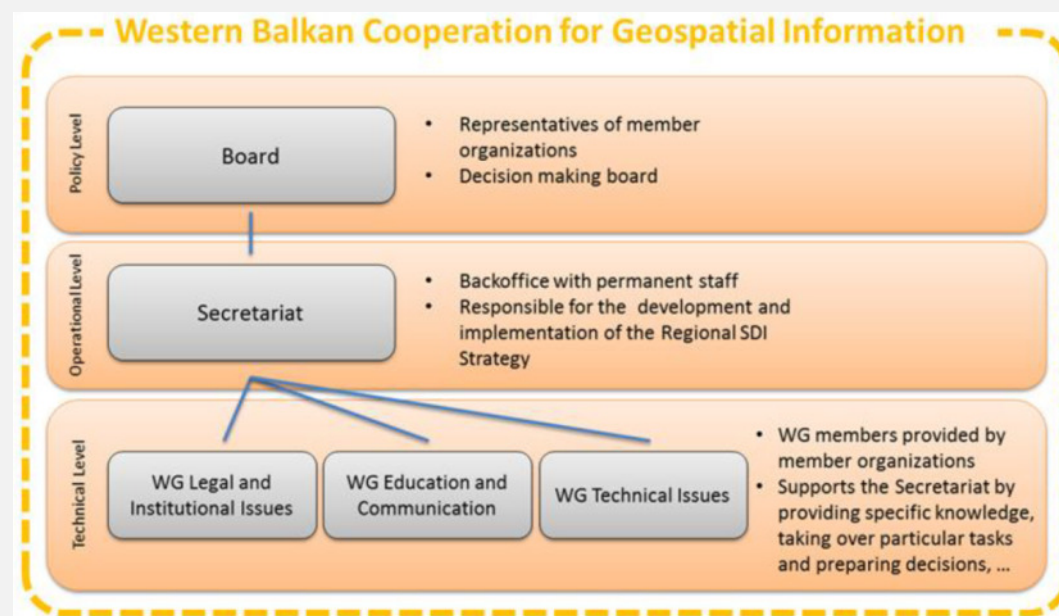
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# Regional Study & Recommendations



- Outlining future options for capacity building on regional level



Capacity building and education



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# List of recommendations

- 2.1: Building a **Network for Geographic Information in the Western Balkans**
- 2.2: Development of **curricula for profiles of SDI experts or users**
- 2.3: Develop the concept and tasks for **learn-on-project work of the students**
- 2.4: Develop atomic simple skills based on the **Train-the-Trainers concept**
- 2.5: Make data **freely accessible and available for education purposes**
- 2.6: Develop a proposal for an initial set of **webinars that cover specific SDI topics**
- 2.7: Extend the work and mandate of the NSDI **working groups for capacity building**

Capacity building and education



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# Events



Capacity building and education



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# Regional Trainings

- Skills taught
  - General
    - Introduction to NSDI and INSPIRE
    - OGC Services (WMS, WFS, CSW, ...)
    - UML Basics
  - Technical
    - OGC Services (WMS, WFS, CSW, ...)
    - UML Basics
    - Data Harmonization
    - License enforcement



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# Regional Trainings

- Skills taught
  - Legal
    - Introduction to EU legal aquis
    - INSPIRE, SEIS, Aarhus Convention
    - Different EU Legal requirements
    - Licensing in INSPIRE
- Interactive sessions, groupwork, discussions



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# National Workshops

- Exchange of local experiences
- Topics tailored to each beneficiary's needs / state of play



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## Institutions in National Workshops



- **Cadastral** (and mapping) authorities
- **Ministries**
  - Environment, Physical Planning, Construction, Agriculture
  - Interior, Defence, Justice, Economy, Education, IT, Innovation
- Local (and regional) governments
- Public agencies in environment protection
- Public enterprise in management of forests, waters, energy, natural resources, roads
- **Universities**; schools
- Companies: Geomatics/GIS, Utilities, IT, Telecom
- NGO



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# Conference in Durres

- Exchange of recommendations, experiences, good practices
- Universities, public sector, private sector
- Sharing examples of life-long-learning, distant studying, study programmes, strategic approaches
- Identifying the needs of public and private sector



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# Study Tour

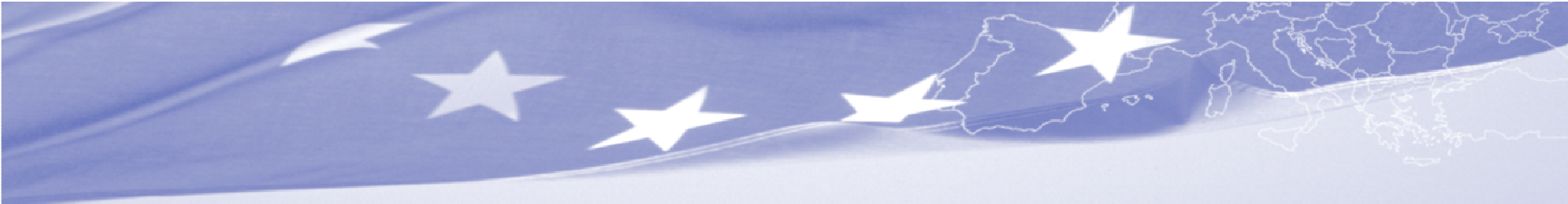
- Visiting institutions engaged in INSPIRE implementation
- Vienna, Austria
  - Umweltbundesamt
  - BEV
- Ispra, Italy
  - Joint Research Centre of the EU



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### 3. Awareness raising and communication



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# Subactivities

- Web Page
- Regional Study & Recommendations
- Ideas Competition
- 2 Pilot Projects
- 2 INSPIRE Fora
- 5 INSPIRE Days
- 7 INSPIRE Brochures

Awareness raising and communication



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## Subactivities (cont.)

- SDI/INSPIRE Video Film
- 2 Cadastral Conferences supported
- Awareness Measures at country level
- 2 European INSPIRE Conferences - presentations
- SDI Days Sibenik – presentation
- TV shows, Radio interviews, Press conferences, News articles

Awareness raising and communication



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# Events



Awareness raising and communication



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# Events

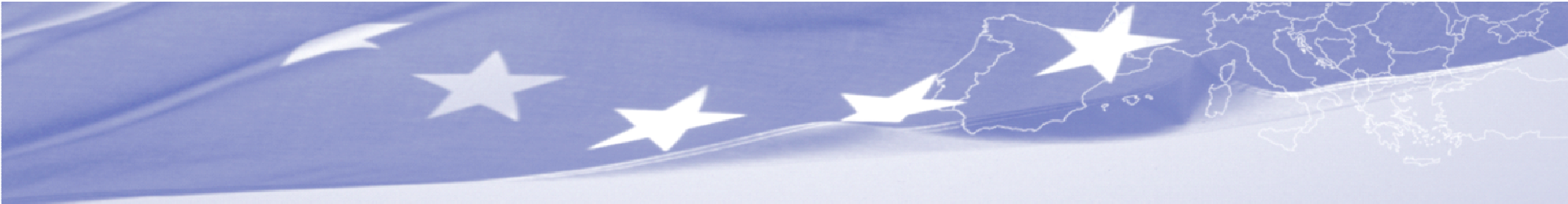
- Ideas Competition
- 2 Pilot Projects
- 2 INSPIRE Fora
  - Zagreb
  - Skopje
- INSPIRE Days
  - Pristina, Becici, Tirana, Mostar, Belgrade
- 2 European INSPIRE Conferences
- SDI Days Sibenik
- 7 INSPIRE Brochures
- SDI/INSPIRE Video Film
- 2 Cadastral Conferences supported

Capacity building and education



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**inspiration**  
Spatial Data Infrastructure in the Western Balkans

**What has changed since?**



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# What has changed since?



- Croatia – became a new member of EU
- Montenegro – negotiation started for EU accession
- Serbia – date for start of negotiations
- Other countries – started to be included in EU accession processes



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# Open questions

- How can Croatia, being a new EU member, contribute/help with its deepened connections towards intensified integration with European processes and funds?



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# Open questions

- How can countries come from legislation and strategies to concrete services for citizens and companies?
  - Create metadata
  - Harmonize data
  - Maintain the regional metadata portal
  - Mash-up projects like pilot in Macedonia



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# Open questions

- Almost every country has geoportal (national access point) in place – how can it be filled with data & services to meet everyday needs?



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# Open questions

→ SEE 2020 Strategy

- How can NSDI contribute to economic growth and development?



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# Open questions

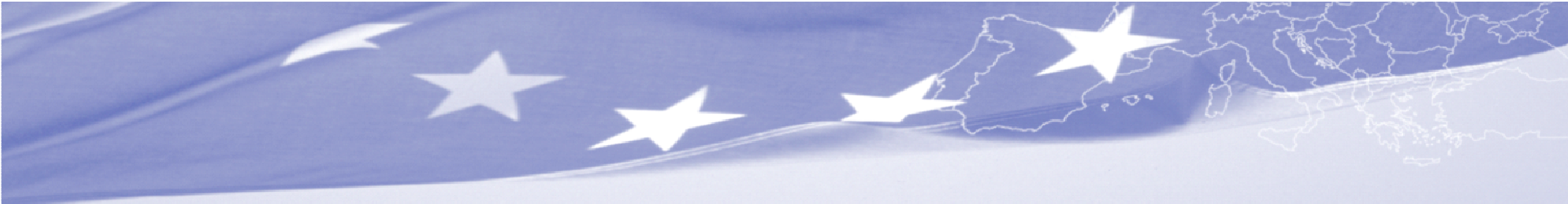
## ➔ INSPIRATION 2

- Do you just want to meet and exchange experiences or get something as a region that makes a difference?



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# INSPIRATION

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