



Data integration & interoperability for public service provision in FBH – Current status of SDI development

Intro and general status in FBiH

Establishment and Strengthening of the Spatial Data Infrastructure (SDI) based on INSPIRE directive principles and other internationally standards are recognized in the Federation of Bosnia and Herzegovina;

Contribution to EU accession and consequently to overall economic and social development and growth;

Joint efforts of geodetic authority and other spatial data holders, with the support of various carefully coordinated projects are leading to the fulfilment of ultimate goals, improvements and establishment of a well-functioning Spatial Data Infrastructure and facilitation of service provision;

The dedicated work on the establishment of accurate and up to date spatial data registers and data dissemination services has attracted many stakeholders enabling continuous activities on data integration and interoperability.

Intro and general status in FBiH

Data and metadata standards, procedures, and policies are used to promote coordination among data providers and dissemination of geospatial data among users around the Federation of Bosnia and Herzegovina.

Exchange of data via web services with different authorities and local governments is raising efficiency of work in land administration and laying the foundations for e-government for user benefits.

Prevention of data duplication and issuance of incorrect data from unauthorized sources, helps in clear definition of roles and jurisdictions among public institutions.

Intro and general status in FBiH

The objective/purpose of establishing a Spatial Data Infrastructure (IPP) is to create the preconditions to streamline spatial data collection and to standardize isolated data islands, at all levels, so that they can be networked and used with quality. Linking different information that is spatially defined (georeferenced), allows users to conduct complex searches and analyzes and connect phenomena in space, the prerequisites for modern management of space and spatial resources.

In that sense, the competent institutions in the Federation of BiH approached the adoption of the framework with due seriousness and commitment:

- INSPIRE directive as foundation
- Law on SDI in FBiH in 2021, previously Government regulation on SDI from 2014
- The FBiH Government adopted Strategy of establishment and maintenance of SDI, in 2016
- Establishment of management and working structure

Intro and general status in FBiH

In accordance with the Law on Spatial Data Infrastructure of the Federation of BiH, the bodies of IPP FBiH are:

1. SDI council (Vijeće IPP FBiH)
2. Working groups (Radne skupine)

FGA sector in charge of SDI. FGA as coordination institution.

According to the Law, FGA is in charge of:

1. Establishes, maintains and manages the IPP FBiH Geoportal;
2. Maintains a public metadata service and provides entities and users with connection to other services included in the IPP FBiH through the Geoportal IPP FBiH;
3. Ensures finding, access and use of spatial data of the FBiH IPP.
4. Other planning, reporting and standards enforcement roles.

Law on SDI in FBiH

- Law on SDI in FBiH (adopted in 2021).
- This law transposes Directive 2007/2 / EC of the European Parliament and of the Council of 14 March 2007 establishing an EU Spatial Data Infrastructure (INSPIRE).
- The law creates the basic rules related to the establishment of the spatial data infrastructure.
- The law also creates a legal framework for the management and exchange of spatial information, which contains rules for achieving technical interoperability in order to share data in electronic form between the competent institutions through network services.
- For this reason, FBI IPP subjects in cooperation with the Coordination Body should provide descriptions of available spatial data sources and services in the form of metadata.

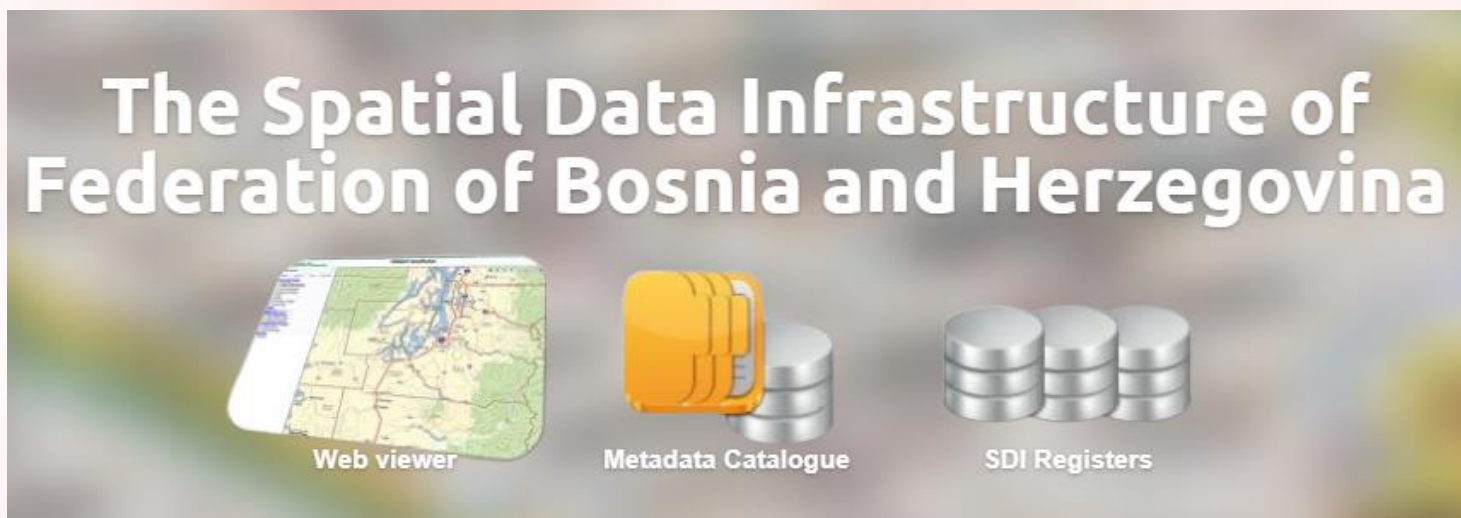
Law on SDI in FBiH

- Network services are needed to share spatial data between different levels of public authority and should enable the discovery, transformation, review and retrieval of spatial data and the use of spatial data services.
- Easier review and retrieval of data from the jurisdiction of the FBiH IPP subjects will ultimately result in greater efficiency of public authorities in areas that are directly or indirectly related to spatial data.
- The themes of spatial data to which the Law applies are also defined.
- The composition, mandate, manner of appointment and dismissal, competencies of the FBiH IPP Council, the possibility of establishing working groups for individual tasks, as well as the function of the FBiH IPP coordination body are prescribed.
- FGA is defined as the Coordination Body of IPP FBiH, which is responsible for efficient establishment, use and development of IPP FBiH, for performing the tasks of secretariat and coordination of IPP FBiH bodies and for technical affairs, support for the establishment, maintenance and development of the FBiH IPP.

SDI FBiH Geoportal: www.ippfbih.gov.ba

SDI web site is planned and established as modular platform which will be upgraded and updated through many phases of SDI FBiH Geoportal establishment with followed elements:

1. **Registers of SDI** (www.ippfbih.gov.ba/registar-ipp)
2. **Metadata Catalogue** (www.ippfbih.gov.ba/katalog-metapodataka-ipp-fbih)
3. **Web viewer** (www.ippfbih.gov.ba/web-preglednik)
4. **Web services** (according to INSPIRE standard)



SDI Registers and Metadata Catalogue

54

SDI entities

109

SDI sources

Access to the SDI FBiH Register of entities and SDI FBiH Register of sources

SDI Registers

Public Registers

SDI Registers

Authorized users

<https://ippfbih.gov.ba/registar-ipp/?lang=en>

Metadata Catalogue

Access to the SDI FBiH Metadata Catalogue

Manual

Enter keywords for finding
the spatial data:

Enter a term

Advanced search

21

Metadata

20

Web services

7

SDI FBiH entities

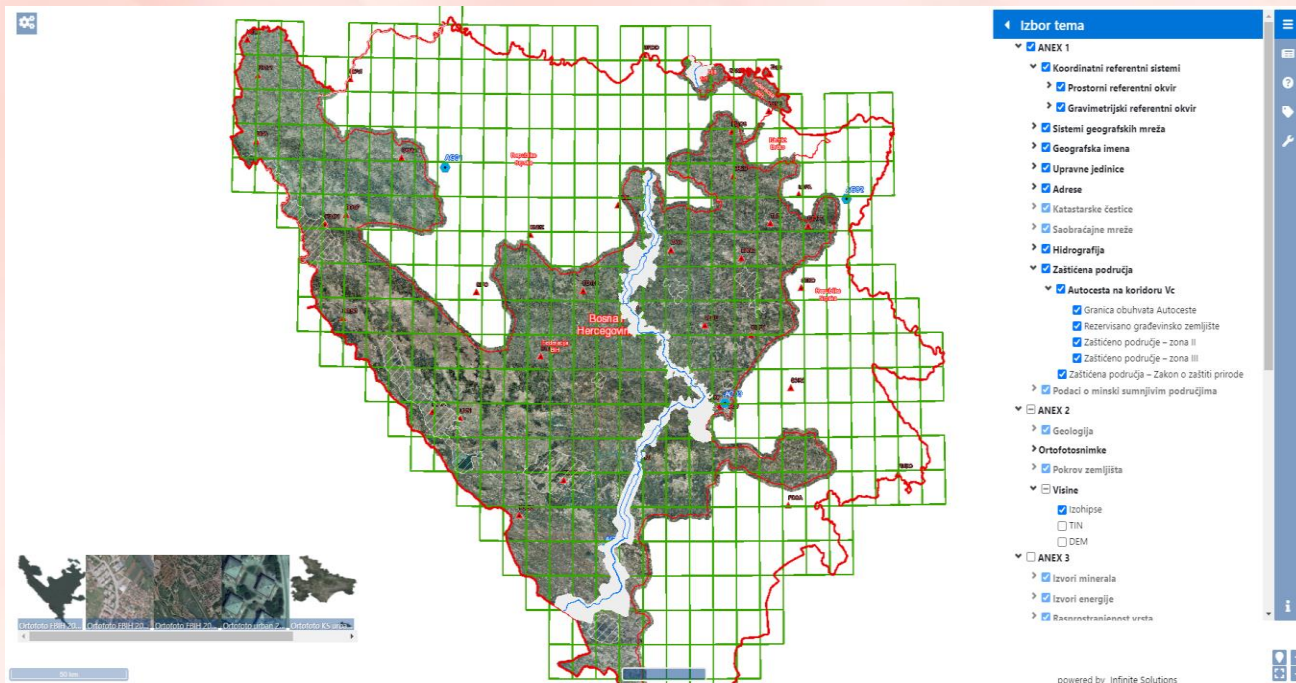
13

SDI FBiH data
sources

<https://ippfbih.gov.ba/katalog-metapodataka-ipp-fbih/?lang=en>

SDI FBiH Web viewer

- Web viewer is a Web GIS application where spatial data are published based on previously published web services and common program components
- The main goal of establishing the Web viewer of FBiH SDI is to ensure easier access and use of standardized spatial data of SDI entities.



- All data that are the subject of SDI FBiH will eventually be available on a Web viewer, previously harmonized with the regulations of INSPIRE standards of the European Union, visualized on a viewer and available to the public access and described in metadata catalogue.

SDI Geoportal of FBiH: Data on Web viewer and Metadata

ANEX 1 of INSPIRE directive, 7 themes are available:



Coordinate reference systems



Addresses



Geographical grid systems



Hidrography



Geographical names



Protected sites



Administrative units

SDI Geoportal of FBiH: Data on Web viewer and Metadata

ANEX 2 of INSPIRE directive, 2 themes available:



Elevation



Orthoimagery

SDI Geoportal of FBiH: Data on Web viewer and Metadata

ANEX 3 of INSPIRE directive, 3 themes available:



Human health and safety



Population distribution
and demography



Statistical units

Activities and plans for future

- Current activities on the field of SDI FBiH:
 - FGA is conducting public procurement for data harmonization of 6 SDI entities as well as procurement of technology platform for 5 SDI subjects
 - Maintenance of current web applications and web site (Geoportal)
 - Geonetwork revision and update of application
 - Update for Web viewer (implementing search and other possibilities)
 - Regular website maintenance
 - Optimization of web services
- As for planned activities, FGA has applied for Project of Public Investments of the Federation of Bosnia and Herzegovina with a Project of Support for Spatial data infrastructure, with 3 main components:
 - Component A: Development of technological architecture
 - Data retrieval service
 - Data view service
 - Download service
 - Transformation service
 - Data invoke service
 - Component B: Increasing the availability of SDI FBiH data through e-services
 - Component C: Capacity Building and Project Management

Thank you for attention

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