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Introduction

The INSPIRE Directive sets the minimum conditions for interoperable sharing and exchange of spatial data across Europe as part of a larger European Interoperability Framework and the e-Government Action Plan that contributes to the Digital Single Market Agenda. Article 21 of INSPIRE Directive defines the basic principles for monitoring and reporting. More detailed implementing rules regarding INSPIRE monitoring and reporting have been adopted as Commission Implementing Decision (EU) 2019/1372 on the 19th August 2019.

This country fiche highlights the progress in the various areas of INSPIRE implementation. It includes information on monitoring 2019 acquired in December 2019 and Member States update.

State Of Play

A high-level view on the governance, use and impact of the INSPIRE Directive in Croatia. More detailed information is available on the INSPIRE knowledge base.

Coordination

National Contact Point

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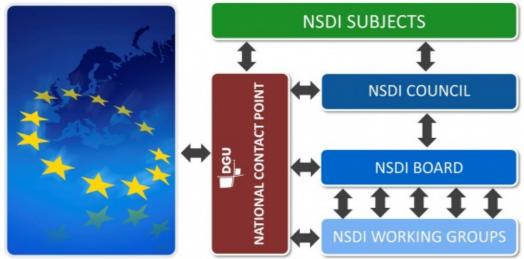
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Coordination Structure & Progress:

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Coordination Structure

- The main governing body of NSDI in the Republic of Croatia is the NSDI Council. It is a body that implements the NSDI within the Republic of Croatia and coordinates the activities of NSDI subjects within the scope and with rights and obligations determined by the Law on National Spatial data infrastructure (OG 56/13, 52/18). Governmental authorities at the level of ministries mainly join this NSDI Council, but also relevant (branch) associations as well as National Contact Point (NCP). The Croatian Government at its 26th session on 16 March 2017 adopted a Decision on the appointment of members of the 5th NSDI Council assembly and the NSDI Council president. Due to personnel changes, on 23rd November 2017 as well as 28th March 2019 the Croatian Government has resolved some of the members of the NSDI Council and has appointed new members.
- At the managerial level is the NSDI Board, a permanent body for NSDI implementation which serves as the
 coordination link between the NSDI Council and NSDI working groups. The NSDI Board is appointed by the NSDI
 Council and consists of three representatives from the NSDI Council, three from the NCP, and the heads of NSDI
 working groups.
- At the operational level, there are NSDI working groups established for the purpose of elaborating certain tasks and obligations within the scope of the NSDI implementation. Currently, there are three workgroups, dealing with specialized tasks:
 - Workgroup for NSDI technical standards
 - Workgroup for NSDI capacity building
 - Workgroup for NSDI spatial data.

• The NCP is responsible for leading the implementation of the NSDI and the coordination of the activities of the NSDI subjects within the scope and with rights and obligations determined by the Law.

Progress

• As the Republic of Croatia became official EU member 1 July 2013, it was not obliged to submit the INSPIRE monitoring and reporting forms before that date. The first Reporting was submitted in 2016 and a lot of progress has been made in the period from 2016-2019. Also from the last update of the Country fische in 2019 the number of identified spatial datasets, as well as documentation of data through NSDI geoportal and Metadata Catalogue, has grown as seen in the Monitoring results. Accessibility of data through network services is also higher. The interoperability of spatial datasets has also increased but still not enough. Thus, NCP has planned a project regarding the increase of availability and interoperability of spatial datasets in Croatia which is funded from the European Regional Development Fund.

Functioning and coordination of the infrastructure

- The Law on National Spatial Data Infrastructure (OG 56/13) was adopted by the Croatian Parliament in May 2013.
- Progress from the Reporting 2016 includes the adoption of the following acts and documents:
 - In September 2017 the government of the Republic of Croatia adopted the Decision on the adoption of the National Spatial Data Infrastructure Strategy 2020 and the Strategic Plan of the National Spatial Data Infrastructure for the period 2017-2020 (OG 96/17). The adoption of the NSDI Strategy will help all stakeholders, primarily NSDI subjects, to achieve compliance with the INSPIRE Directive. It will further emphasize the centralized access to spatial data of the public bodies through the NSDI geoportal, which will result in greater efficiency of state administration in areas directly or indirectly linked to spatial data. Fulfillment of the strategic goals will increase the number of spatial data present, primarily at the regional and local level, where the largest number of new NSDI subjects are expected.
 - The Law on Amendments to the Law on National Spatial Data Infrastructure (OG 52/18) was adopted by the Croatian Parliament in May 2018. The current Law on National Spatial Data Infrastructure (OG 56/13, 52/18) is in line with Directive 2007/2 / EC of the European Parliament and of the Council of March 14th, 2007 establishing an Infrastructure for Spatial Information in the European Community (INSPIRE).

Usage of the infrastructure for spatial information

- Quantitative information about the use of the spatial datasets exists only for those datasets for which are developed network services. NSDI subjects that have developed such services for their datasets are State Geodetic Administration, Ministry of Environmental Protection and Energy, Croatian Highways, Ministry of Construction and Physical Planning, City of Zagreb, Croatian Forest, Croatian Water, and PSP. All of the data regarding the usage of network services and data they serve are annually reported in Monitoring reports. The most used network services are State Geodetic Administration's Digital orthophoto, Topographic Map 1: 25 000 and Cadastral parcels and Cadastral municipalities.
 - The view services of the State Geodetic Administration are annually requested 100 000 000 times through its geoportal. Gazetteer of Geographical Names is annually downloaded 4000 times.
 - The view and download services of the Ministry of Environmental Protection and Energy are annually requested approx. 8000 times.
 - The view services of the Ministry of Construction and Physical planning are annually requested from 1500-10000 times depending on the county which data they provide.
- NCP has encouraged NSDI subjects to implement their own metadata catalogues based on NSDI Metadata Specification and now NSDI geoportal is harvesting two such catalogues from the Ministry of Environmental Protection and Energy and Croatian Bureau of Statistics.
- The use of the infrastructure for spatial information has grown a lot in the past three years which can be seen in the development of many geoportal and metadata catalogues.
- NSDI is also used in education in the Republic of Croatia. Research made on several high schools and universities in Croatia showed that NSDI is used for educational purposes in at least 3 faculties and 1 high school.
- Communication Plan of National Spatial Data Infrastructure was written in December 2018 and its goal is to define the best methods for communication with different stakeholders including the general public and further raise the awareness on benefits of spatial data infrastructure.
- State Geodetic Administration has signed the grant agreement for the project "Strengthening Capacities for the Establishment of the National Spatial Data Infrastructure". The project is co-financed by the European Social Fund from the Priority Axis 4, Operational Program Effective Human Resources 2014-2020, Investment Priority 11.i., Specific goal 11.i.1. The main goal of the project is to strengthen the existing NSDI capacities at the National Contact Point and local promoters, as well as raising NSDI knowledge at the local, regional and national levels thus resulting in the increase of the number of NSDI subjects.

Data sharing arrangements

• The goal of the Republic of Croatia is to share the data between public authorities and to re-use it for different purposes.

Data sharing agreements exist among public authorities and define the terms of use for datasets that are being

shared, therefore reducing the obstacles in data sharing. State Geodetic Administration has 33 data sharing agreements with 29 different public authorities.

- There is also a practice of co-financing the major projects of data acquisition between two or more institutions that also leads to data sharing and cost reduction. The best example is the creation of Digital orthophoto, which is co-financed by two institutions, State Geodetic Administration and Agency for Payments in Agriculture, Fisheries and Rural Development.
- Data exchange and sharing are common among some Croatian public authorities and European Community institutions
 and bodies. For example, the Meteorological and Hydrological Service exchange daily data in the context of the European
 Flood Awareness System and World meteorological services.

Costs and benefits

Although no quantitative values of the INSPIRE implementation benefits can be given, there are many positive feedbacks to INSPIRE implementation and using National Spatial Data Infrastructure:

- Using NSDI has led to cost reduction as data can be re-used in other institutions and duplication of data acquisition can be avoided.
- Stakeholders use the Metadata Catalogue and NSDI geoportal for their needs regarding spatial data since all necessary information regarding the data can be found there (e.g. terms of use, resolution, data coverage).
- NSDI subjects when providing INSPIRE services for their spatial datasets decide to make them free of charge, thus
 allowing companies to use these data to create new products and expand the spatial data market.

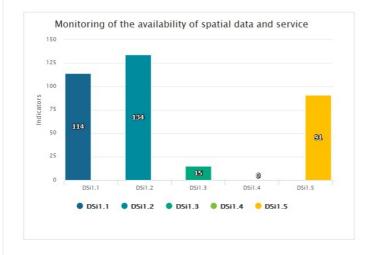
Key facts and figures



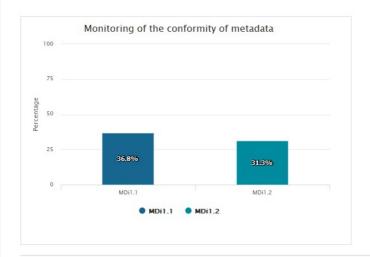
Indicators in support of Commission Decision (EU) 2019/1372 implementing Directive 2007/2/EC (INSPIRE) as regards to monitoring and reporting

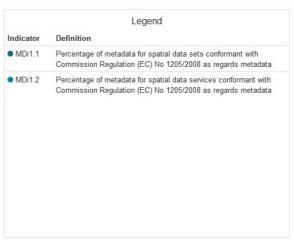
Graphs generated with data taken from: https://inspire-geoportal.ec.europa.eu/mr2019_details.html?country=hr

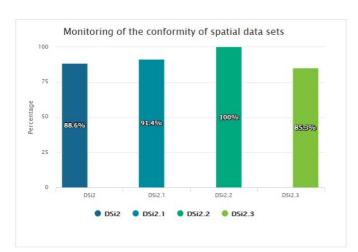
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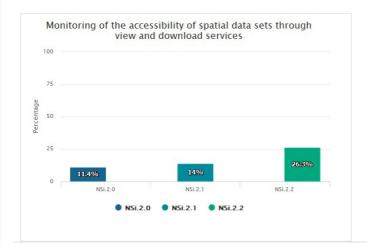
Legend		
Indicator	Definition	
DSi1.1	The number of spatial data sets for which metadata exist	
DSi1.2	The number of spatial data services for which metadata exist	
• DSi1.3	The number of spatial data sets for which the metadata contains one or more keywords from a register provided by the Commission indicating that the spatial data set is used for reporting under the environmental legislation	
● DSi1.4	The number of spatial data sets for which the metadata contains a keyword from a register provided by the Commission indicating that the spatial data set covers regional territory	
● DSi1.5	The number of spatial data sets for which the metadata contains a keyword from a register provided by the Commission indicating that the spatial data set covers national territory	



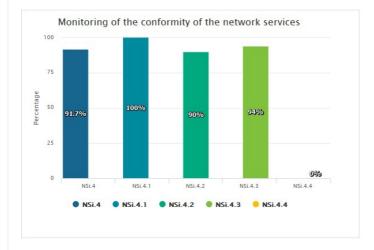




Indicator	Definition
● DSi2	Percentage of spatial data sets that are in conformity with Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets
● DSi2.1	Percentage of spatial data sets, corresponding to the themes listed in Annex I, that are in conformity with Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets
● DSi2.2	Percentage of spatial data sets, corresponding to the themes listed in Annex II, that are in conformity with Commission Regulation (EU) No 1089/2010 as regards interoperability of spatial data sets
● DSi2.3	Percentage of spatial data sets, corresponding to the themes listed in Annex III, that are in conformity with Commission Regulation (EU No 1089/2010 as regards interoperability of spatial data sets



Legend			
Indicator	Definition		
● NSi.2.0	The Percentage of spatial data sets that are accessible through view and the download services		
NSi.2.1	The Percentage of spatial data sets that are accessible through view services		
• NSi.2.2	The Percentage of spatial data sets that are accessible through download services		



Legend		
Indicator	Definition	
NSi.4	Percentage of the network services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services	
● NSi.4.1	Percentage of the discovery services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services	
● NSi.4.2	Percentage of the view services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services	
● NSi.4.3	Percentage of the download services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services	
NSi.4.4	Percentage of the transformation services that are in conformity with Commission Regulation (EC) No 976/2009 as regards the Network Services	

