



INSPIRE Monitoring and Reporting 2020: Procedure, status and planning

JRC INSPIRE Team

12th MIG meeting – November 26-27, 2020

INSPIRE Monitoring and Reporting 2020

- Based on [Commission Decision 2019/1372](#):
 - **19 indicators** calculated from the metadata of spatial data sets & spatial data services published by Member States through discovery services

DECISIONS

COMMISSION IMPLEMENTING DECISION (EU) 2019/1372

of 19 August 2019

implementing Directive 2007/2/EC of the European Parliament and of the Council as regards monitoring and reporting


(notified under document C(2019) 6026)

(Text with EEA relevance)

Indicators for Monitoring and Reporting 2020

- Same set of indicators, **one important difference** in the calculation:
 - only MD encoded according to **TG 2.0** will be considered!

MD TG 1.3



INSPIRE
Infrastructure for Spatial Information in Europe

INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119

Title	INSPIRE Metadata Implementing Rules: Technical Guidelines based on EN ISO 19115 and EN ISO 19119
Creator	Drafting Team Metadata and European Commission Joint Research Centre
Creation date	2007-10-26
Date of last revision	2013-10-29
Subject	INSPIRE Implementing Rules for Metadata
Status	V. 1.3
Publisher	European Commission Joint Research Centre
Type	Text
Description	Guidelines based on EN ISO 19115 and EN ISO 19119 for Commission Regulation (EC) No 1205/2008 of 3 December 2008 implementing Directive 2007/2/EC of the European Parliament and of the Council as regards metadata
Contributor	See Acknowledgements
Format	Pdf
Source	European Commission Joint Research Centre
Rights	Public
Identifier	MD_IR_and_ISO_20131029.doc
Language	EN
Revision	Not applicable
Language coverage	Not applicable



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MD TG 2.0

Technical Guidance for the implementation of INSPIRE dataset and service metadata based on ISO/TS 19139:2007

Title	Technical Guidelines for implementing dataset and service metadata based on ISO/TS 19139:2007
Creator	Temporary MIG subgroup for action MIWP-8
Date of publication	2017-03-02
Subject	Technical Guidance for INSPIRE metadata for datasets and services
Status	Version 2.0.1 This document has been endorsed by the INSPIRE maintenance and implementation group (MIG) in its meeting on 30/11-1/12/2016 (see meeting minutes at https://ies-svn.irc.ec.europa.eu/projects/mig-p/wiki/5th_MIG-P_meeting).
Publisher	INSPIRE Maintenance and Implementation Group (MIG)
Type	Text
Description	Implementation specification for defining metadata for INSPIRE datasets and services in ISO/TS 19139 based XML format in compliance with the INSPIRE Implementing Rules for metadata.
Format	PDF
Licence	Creative Commons Attribution (cc-by) 4.0 (https://creativecommons.org/licenses/by/4.0/)
Identifier	http://inspire.ec.europa.eu/id/document/tg/metadata-iso19139/2.0 (latest bugfix version of v2.0) http://inspire.ec.europa.eu/id/document/tg/metadata-iso19139/2.0.1 (this bugfix version)
Corrigenda	http://inspire.ec.europa.eu/id/document/tg/metadata-iso19139/2.0/corrigenda
Language	EN

INSPIRE Monitoring and Reporting 2020

- Indicators grouped into 5 categories:

- availability of spatial data and services

- DSi1.1, DSi1.2, DSi1.3, DSi1.4, DSi1.5

- conformity of metadata

- MDi1.1, MDi1.2

- conformity of spatial data sets

- DSi2, DSi2.1, DSi2.2, DSi2.3

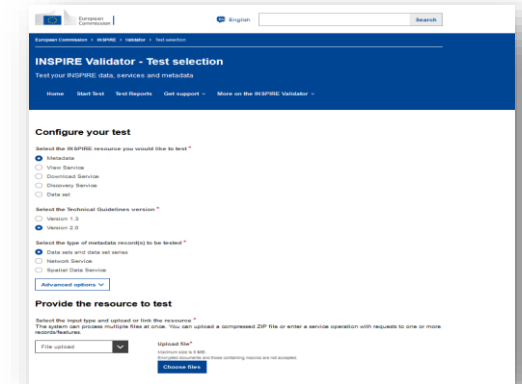
- accessibility of spatial data sets

- NSi2, NSi2.1, NSi2.2

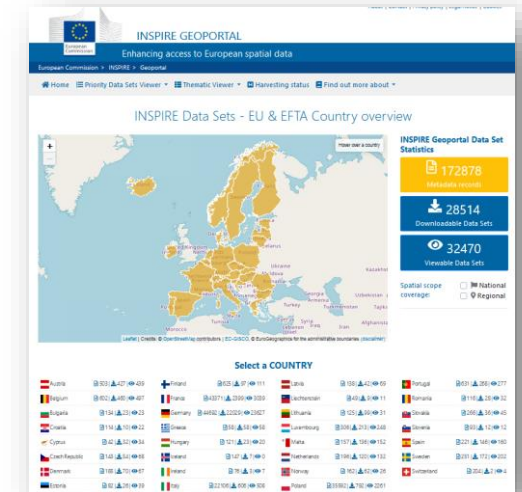
- conformity of network services

- NSi4, NSi4.1, NSi4.2, NSi4.3, NSi4.4

**INSPIRE
Reference
Validator**
(metadata
validation)

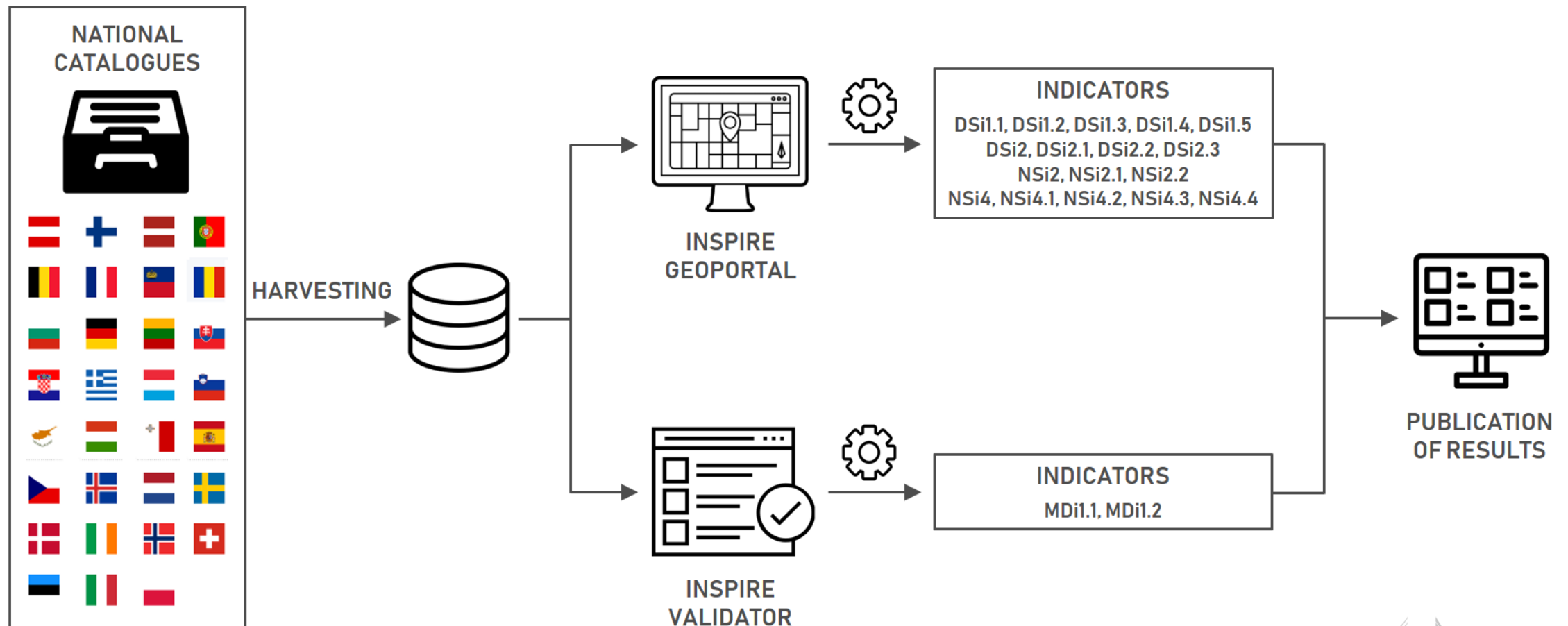


**INSPIRE
Geoportal**
(linkages check)



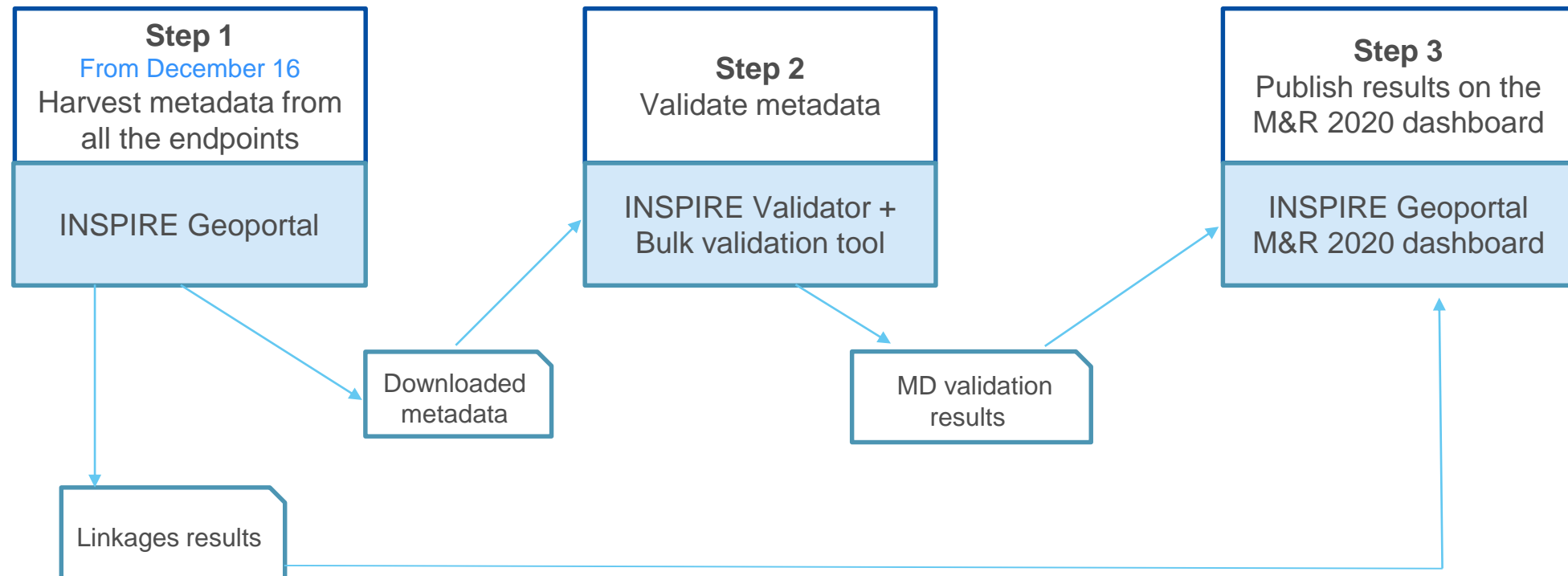
INSPIRE Monitoring and Reporting 2020

- Overall process:



INSPIRE Monitoring and Reporting 2020

- Overall process:



INSPIRE Geoportal – Status & planning

- v.1.4.0 (including support for metadata TG v.2.0) released on September 16
- v.1.5.0 (to be used in M&R 2020) released on November 16
- Overall **planning**:

Between September 16 and October 23

Testing period where INSPIRE stakeholders can provide feedback and report bugs using the Geoportal Helpdesk

After October 23

Development of **bug fixes** for the bug reports received. No additional requests for change addressed after this date

November 16

Release of the Geoportal version to be used for the Monitoring and Reporting 2020 activities

From December 16

Harvesting of metadata from Member States national catalogues

INSPIRE Validator – Status & planning

- v.2020.3 (used for Monitoring and Reporting 2020) released on September 16
 - **bugfix version** adding non-breaking changes to v.2020.2 (June 2020)
 - improved instructions for **local deployment** using Docker

Please use your own Validator instance for testing!

Bugfixes

- #207 Tooltip updated for datasets services
- #214 Pre-defined WFS - check on optional element wfs:boundedBy - #503
- #295 Test "Request and check externalServiceMetadata" in Conformance Class: Download Service - Pre-defined WFS - #511
- #307 EPSG codes in Azores - #504
- #322 Increase Upload size limit to 200MB (Staging instance) and 50MB (Production instance)
- #343 Test C.18 - New corner case - #505
- #348 Priority Datasets Keyword: error for Citation Title - #506
- #350 Updated RegEx for ISO:8601 on MD 2.0 - #507
- #367 Possible invalid test in MD 2.0 CC 7: 'INSPIRE Harmonised Spatial Data Services metadata' - #508
- #373 Fixed different system errors on MD 2.0 - #509
- #385 Updated error message for MD 2.0 - SDS 3.4 - #510

<https://github.com/inspire-eu-validation/community/releases/tag/v2020.3>

Calculation of indicators using the Validator

- Indicator MDi1.1:
 - percentage of metadata for spatial data sets conformant with Commission Regulation (EC) No 1205/2008 as regards metadata
 - metadata filtered as:
 - `<gmd:hierarchyLevel>/<gmd:MD_ScopeCode>` with codelist value `dataset` or `series`

Metadata (TG version 2.0) - BETA

<input checked="" type="checkbox"/> Common Requirements for ISO/TC 19139:2007 based INSPIRE metadata records.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Conformance Class 1: INSPIRE data sets and data set series baseline metadata.	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Conformance Class 2: INSPIRE data sets and data set series interoperability metadata.	<input type="checkbox"/> use
<input checked="" type="checkbox"/> Conformance Class 2b: INSPIRE data sets and data set series metadata for Monitoring	<input checked="" type="checkbox"/>
<input checked="" type="checkbox"/> Conformance Class 3: INSPIRE Spatial Data Service baseline metadata.	<input type="checkbox"/> use
<input checked="" type="checkbox"/> Conformance Class 4: INSPIRE Network Services metadata.	<input type="checkbox"/> use
<input checked="" type="checkbox"/> Conformance Class 5: INSPIRE Invocable Spatial Data Services metadata.	<input type="checkbox"/> use
<input checked="" type="checkbox"/> Conformance Class 6: INSPIRE Interoperable Spatial Data Services metadata.	<input type="checkbox"/> use
<input checked="" type="checkbox"/> Conformance Class 7: INSPIRE Harmonised Spatial Data Services metadata.	<input type="checkbox"/> use
Interoperable data sets in GML (Guidelines for the Encoding of Spatial Data version 3.3)	
<input checked="" type="checkbox"/> Conformance class: Data consistency, General requirements	<input type="checkbox"/> use

Calculation of indicators using the Validator

- Indicator MDi1.2:
 - percentage of metadata for spatial data services conformant with Commission Regulation (EC) No 1205/2008 as regards metadata
 - metadata filtered as:
 - `<gmd:hierarchyLevel>/<gmd:MD_ScopeCode>` with codelist value `service`
 - `<srv:serviceType>/<gco:LocalName>` with value `view`, `download`, `discovery` or `transformation` for Network Services, `other` for Invocable Spatial Data Services

Metadata (TG version 1.3)

- + Conformance class: INSPIRE Profile based on EN ISO 19115 and EN ISO 19119 use
- + Conformance class: Metadata for interoperability use

Metadata (TG version 2.0) - BETA

- + Common Requirements for ISO/TC 19139:2007 based INSPIRE metadata records. use
- + Conformance Class 1: INSPIRE data sets and data set series baseline metadata. use
- + Conformance Class 2: INSPIRE data sets and data set series interoperability metadata. use
- + Conformance Class 3: INSPIRE Spatial Data Service baseline metadata. use
- + Conformance Class 4: INSPIRE Network Services metadata. use
- + Conformance Class 5: INSPIRE Invocable Spatial Data Services metadata. use
- + Conformance Class 6: INSPIRE Interoperable Spatial Data Services metadata. use
- + Conformance Class 7: INSPIRE Harmonised Spatial Data Services metadata. use

Bulk validation tool for metadata

- Allows to perform **massive validation of metadata** using any instance of the INSPIRE Reference Validator:
 - will be used to **automate validation** using the INSPIRE Reference Validator API
 - **v.2020.2** released on September 23 with the new rules (focus on metadata TG v.2.0)
 - to be used with **your own instance of the Validator** (NOT the central INSPIRE one)!

Bulk processing tool for the INSPIRE Reference Validator

This software tool allows for validation of large numbers of metadata records using the API of the [INSPIRE Reference Validator](#). It was developed to support INSPIRE Monitoring & Reporting activities. The tool was built with [Pentaho Data Integration Community Edition](#) platform which is required to use it.

<https://github.com/inspire-eu-validation/monitoring-bulk-validation-tool>

Monitoring and Reporting 2020 dashboard

- It will include the indicator values for all countries.
- The page will be public soon.

The screenshot shows the INSPIRE GEOPORTAL dashboard. At the top, there is a navigation bar with the European Commission logo and the text "INSPIRE GEOPORTAL Enhancing access to European spatial data". Below this, there are several tabs: "Home", "Priority Data Sets Viewer", "Thematic Viewer", "Harvesting status", and "Find out more about". The main content area is titled "INSPIRE Monitoring 2020" and displays a grid of 32 cards, one for each country. Each card includes the country name, its flag, and a "Metadata" section. Below the metadata, there are three sub-sections: "Dataset", "Services", and "Series", each with a dropdown menu. The countries included are Austria, Belgium, Bulgaria, Croatia, Cyprus, Czech Republic, Denmark, Estonia, Finland, France, Germany, Greece, Hungary, Iceland, Ireland, Italy, Latvia, Liechtenstein, Lithuania, Luxembourg, Malta, Netherlands, Norway, Poland, Portugal, Romania, Slovakia, Slovenia, Spain, Sweden, and Switzerland.

The screenshot shows the INSPIRE GEOPORTAL dashboard for Spain. At the top, there is a navigation bar with the European Commission logo and the text "INSPIRE GEOPORTAL Enhancing access to European spatial data". Below this, there are several tabs: "Home", "Priority Data Sets Viewer", "Thematic Viewer", "Harvesting status", and "Find out more about". The main content area is titled "Indicators in support of Commission Decision (EU) 2019/1372 implementing Directive 2007/2/EC (INSPIRE) as regards to monitoring and reporting". Below this, there is a section for "Spain" with a warning: "Warning: No data available for this country. This means that the calculation process is still ongoing." Below the warning, there is a search bar with the text "INSPIRE-c6f329a0-4c3d-11e7-9e8f-52540023a883". Below the search bar, there is a section for "MD Catalogue URL:", "Endpoint ID:", and "The date of harvest metadata:". Below this, there is a section for "Overview statistics of the harvested metadata" with dropdown menus for "Dataset:", "Series:", and "Services:". Below this, there is a section for "Results of evaluation using INSPIRE Reference Validator" with two sub-sections: "Metadata Dataset" and "Metadata Services". Each sub-section has a "Conformant:" and "NOT Conformant:" section with a "Click to download the failed records" link. Below this, there is a section for "Monitoring Indicators 2020" with two sub-sections: "Availability" and "Conformity". The "Availability" section has four sub-sections: "Monitoring of the availability of spatial data and service" with "DSi1.1" and "DSi1.2", "Monitoring of the availability of spatial data and service" with "DSi1.3", "Monitoring of the availability of spatial data and service" with "DSi1.4" and "DSi1.5", and "Monitoring of the accessibility of spatial data sets through view and download services" with "NSi2" and "NSi2.1" and "NSi2.2". The "Conformity" section has four sub-sections: "Monitoring of the conformity of metadata" with "MDi1.1" and "MDi1.2", "Monitoring of the conformity of spatial data sets" with "DSi2" and "DSi2.1", "DSi2.2", and "DSi2.3", and "Monitoring of the conformity of the network services" with "NSi4" and "NSi4.1", "NSi4.2", "NSi4.3", and "NSi4.4".

Monitoring and Reporting 2019



- JRC Technical Report will be available soon:
 - focus on the Monitoring and Reporting 2019 results
 - target readers are **INSPIRE** stakeholders

Thank you!



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