



# Monitoring and Reporting: Preparations for the 2022 monitoring cycle

**JRC INSPIRE Team**

*16<sup>th</sup> MIG meeting – November 24, 2022*

# Monitoring and Reporting 2022 – Legal base

- 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

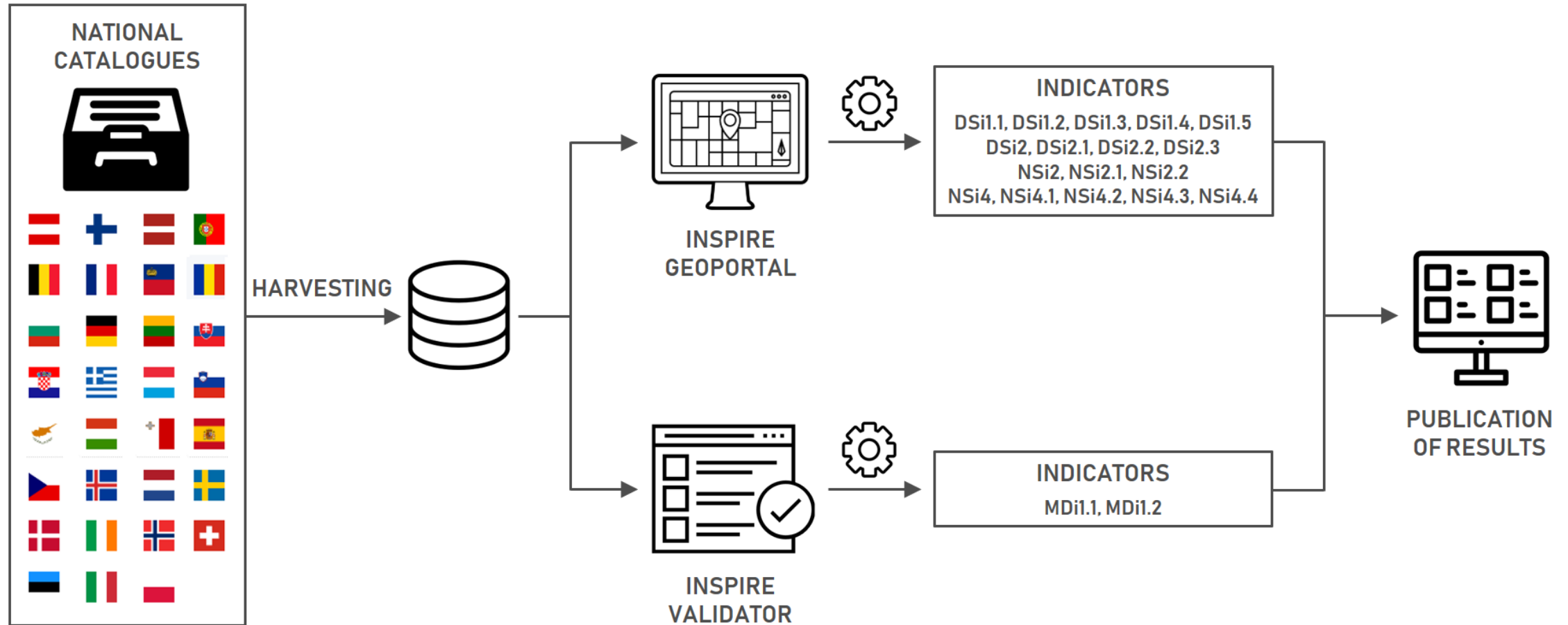
of 19 August 2019

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

*(notified under document C(2019) 6026)*

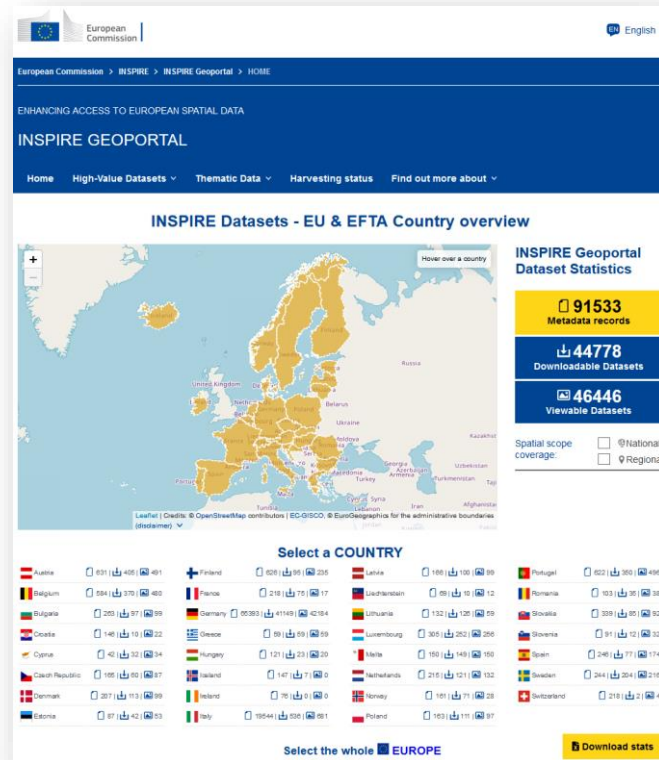
*(Text with EEA relevance)*

# Monitoring and Reporting 2022 – Process

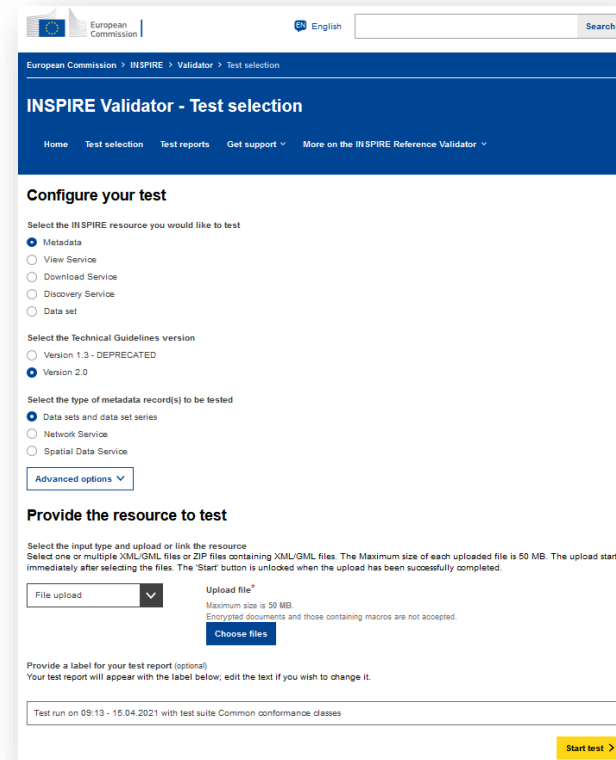


# Monitoring and Reporting 2022 – Software

- Software components used:



- INSPIRE Geoportal (upcoming version based on GeoNetwork)



- INSPIRE Reference Validator v.2022.3 (released on 21/09/2022)
- Bulk validation tool v.2021.1.0 (released on 5/10/2021)

# Monitoring and Reporting 2022 – Indicators

- 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

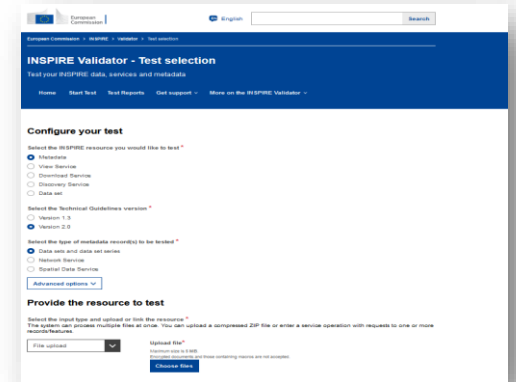
- accessibility of spatial data sets

- NSi2, NSi2.1, NSi2.2

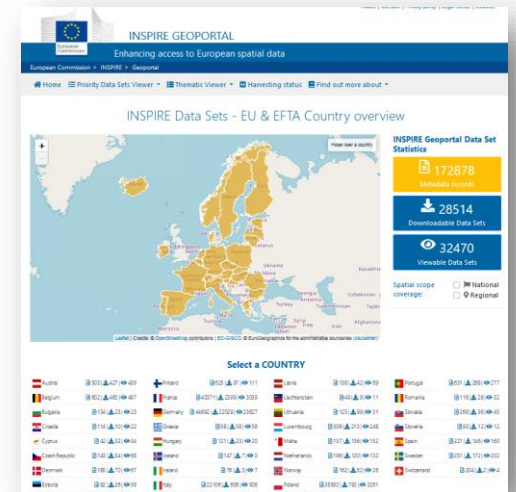
- conformity of network services

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

**INSPIRE  
Reference  
Validator**  
(metadata  
validation)



**INSPIRE  
Geoportal**  
(linkages check)



# Monitoring and Reporting 2022 – Indicators

- Indicators grouped into 5 categories:

- availability of spatial data and services

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

**absolute values**

- 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

**relative values**

(percentages)

# INSPIRE Geoportal – upcoming rollout

- *GeoNetwork and INSPIRE* side event happened this morning
  - approximately 35 people attending, including GeoCat, MIG-T members & people responsible for national catalogues
  - beneficial for GeoNetwork integration in the INSPIRE Geoportal
- The new GeoNetwork-based backend will be used for the Monitoring and Reporting process
- Rollout of the new Geoportal (including new UI on HVD) pending:
  - resolution of some vulnerabilities found during security assessment
  - upgrading the cloud server to address performance issues
- Not all countries are participating in the tests (!)
  - JRC will send access credentials to all countries

# INSPIRE Reference Validator – v.2022.3

v2022.3 - 21/09/2022

Latest

Compare



jenriquesoriano released this 15 days ago · 1 commit to master since this release v2022.3 c10e687

The version published at this time contains non-breaking changes.

## Bugfixes

- [#39](#) [#613](#) [#822](#) at39bis layer title manual check added - [#777](#)
- [#683](#) at03 check changed to manual and message updated - [#769](#)
- [#788](#) wfs:member additionalObjects path added - [#770](#)
- [#798](#) sd:SpeciesDistributionUnit added in sd-gml.a.1 - [#771](#)
- [#809](#) af:Site added in af-gml.a.1 - [#772](#)
- [#816](#) BuildingPart added in bu-gml-a.1 - [#773](#)
- [#824](#) C15 codeListValue and error message updated - [#774](#)
- [#830](#) sr-as.b.3 Polygon, PolyhedralSurface and TriangulatedSurface added - [#775](#)
- [#844](#) wms and wmts description links updated - [#776](#)

## Deployment instructions

The section containing the deployment process using Docker image and troubleshooting section. You can also find these in the [training material](#)

```
docker login docker.pkg.github.com
#Provide Github credentials
docker run --name inspire-validator -d -p 8090:8090 -v ~/etf:/etf docker.pkg.github.com/inspire-mif/helpdesk-validator/inspire-validator:2022.3
#Launches a container with the image, exposing the UI in port 8090 through the same port in the host machine, and uses a volume in the local file system, on
```

<https://github.com/INSPIRE-MIF/helpdesk-validator/releases/tag/v2022.3>



# 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
- View Service
- Download Service
- Discovery Service
- Data set

#### Select the Technical Guidelines version

- Version 1.3 - DEPRECATED
- Version 2.0

#### Select the type of metadata record(s) to be tested

- Data sets and data set series
- Network Service
- Spatial Data Service

Advanced options ^

#### Select the conformance classes to be assessed

- Common Requirements for ISO/TC 19139:2007 based INSPIRE metadata records ([source](#))
- Conformance Class 1: 'Baseline metadata for data sets and data set series' ([source](#))
- Conformance Class 2: 'INSPIRE data sets and data set series interoperability metadata' ([source](#))
- Conformance Class 2b: 'INSPIRE data sets and data set series metadata for Monitoring' ([source](#))
- Conformance Class 2c: 'INSPIRE data sets and data set series metadata for IACS' ([source](#))

<http://inspire.ec.europa.eu/validator>

# 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

- Metadata
- View Service
- Download Service
- Discovery Service
- Data set

#### Select the Technical Guidelines version

- Version 1.3 - DEPRECATED
- Version 2.0

#### Select the type of metadata record(s) to be tested

- Data sets and data set series
- Network Service
- Spatial Data Service

Advanced options ^

#### Select the conformance classes to be assessed

- Common Requirements for ISO/TC 19139:2007 based INSPIRE metadata records ([source](#))
- Conformance Class 3: 'INSPIRE Spatial Data Service baseline metadata' ([source](#))
- Conformance Class 4: 'INSPIRE Network Services' ([source](#))

<http://inspire.ec.europa.eu/validator>

# 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 `other` for Invocable Spatial Data Services

- Metadata
- View Service
- Download Service
- Discovery Service
- Data set

#### Select the Technical Guidelines version

- Version 1.3 - DEPRECATED
- Version 2.0

#### Select the type of metadata record(s) to be tested

- Data sets and data set series
- Network Service
- Spatial Data Service

Advanced options ^

#### Select the conformance classes to be assessed

- Common Requirements for ISO/TC 19139:2007 based INSPIRE metadata records ([source](#))
- Conformance Class 3: 'INSPIRE Spatial Data Service baseline metadata' ([source](#))
- Conformance Class 5: INSPIRE Invocable Spatial Data Services metadata' ([source](#))
- Conformance Class 6: 'INSPIRE Interoperable Spatial Data Services metadata' ([source](#))
- Conformance Class 7: 'INSPIRE Harmonised Spatial Data Services metadata' ([source](#))

<http://inspire.ec.europa.eu/validator>

# Bulk validation tool for metadata

- Allows to perform **massive validation of metadata** using any instance of the INSPIRE Reference Validator:
  - used to **automate validation** using the INSPIRE Reference Validator API
  - **v.2021.1.0** released on 5 October 2021
  - to be used with **your own instance of the Validator** (NOT the central INSPIRE one)!

## Bulk processing tool for the INSPIRE Reference Validator

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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>

# Conclusions & Recommendations

- 2022 is a **transitional year**
  - first M&R edition using the new GeoNetwork-based Geoportal
  - improved transparency and reproducibility of results
- Make sure to:
  - **start testing** if not already done
  - **provide feedback** (both positive and negative)
  - be ready to **accept the change!**
- For indicators whose values are self-declared (**conformity of datasets and services**):
  - use the INSPIRE Reference Validator to check conformity
  - we will make an **a posteriori assessment**
- Overall: do not focus on numbers, but on the actual usability of the infrastructure!

# Thank you!



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