

INSPIRE-Monitoring 2021

Pornpak Khunatorn | iStock / Getty Images Plus | Getty Images

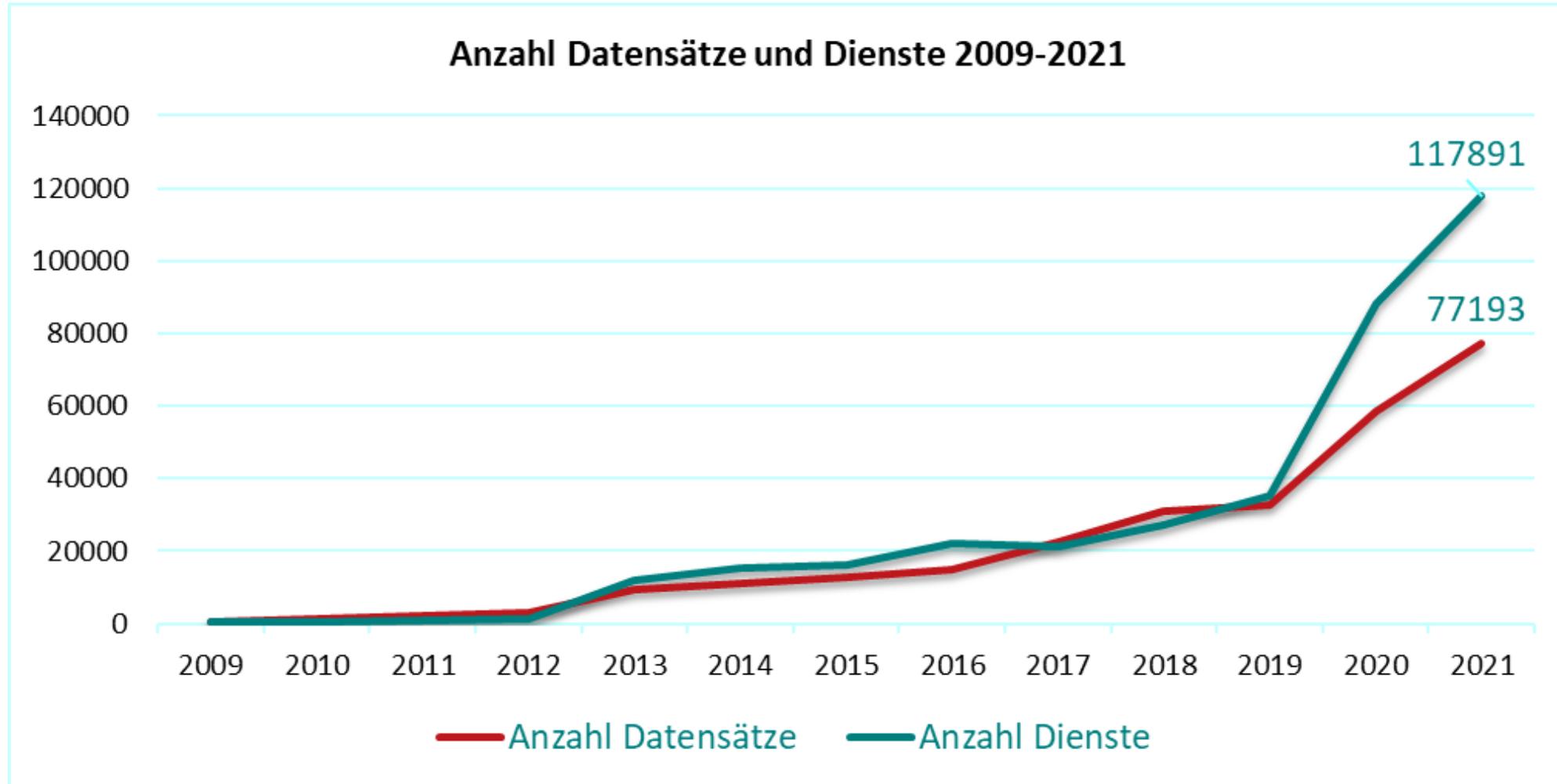
INSPIRE-Infoveranstaltung, 28.04.2022

TOP 2

Koordinierungsstelle GDI-DE

www.gdi-de.org | www.geoportal.de | https://twitter.com/GDI_DE

Entwicklung





Identifizierungsprozess

- Zunahme der identifizierten Ressourcen (ca. 33%)
- Erhöhung v.a. durch kommunale Daten aus BW
- insbesondere Anhang III – Thema Bodennutzung (land use)
- Anteil BW ca. 65 % von DE

- Anteil DE 92% von EU Ressourcen

Verfügbarkeit von Geodatenätzen und Geodatendiensten



Indikator	Beschreibung	2019	2020	2021
DSi1.1	Anzahl Datensätze	32.518	58.505	77.193
DSi1.2	Anzahl Dienste	35.046	88.068	117.891
DSi1.3	Anzahl <u>Priority</u> Data Sets	108	144	209
DSi1.4	Anzahl regionale Datensätze	10.975	2.098	2.879
DSi1.5	Anzahl nationale Datensätze	156	135	167

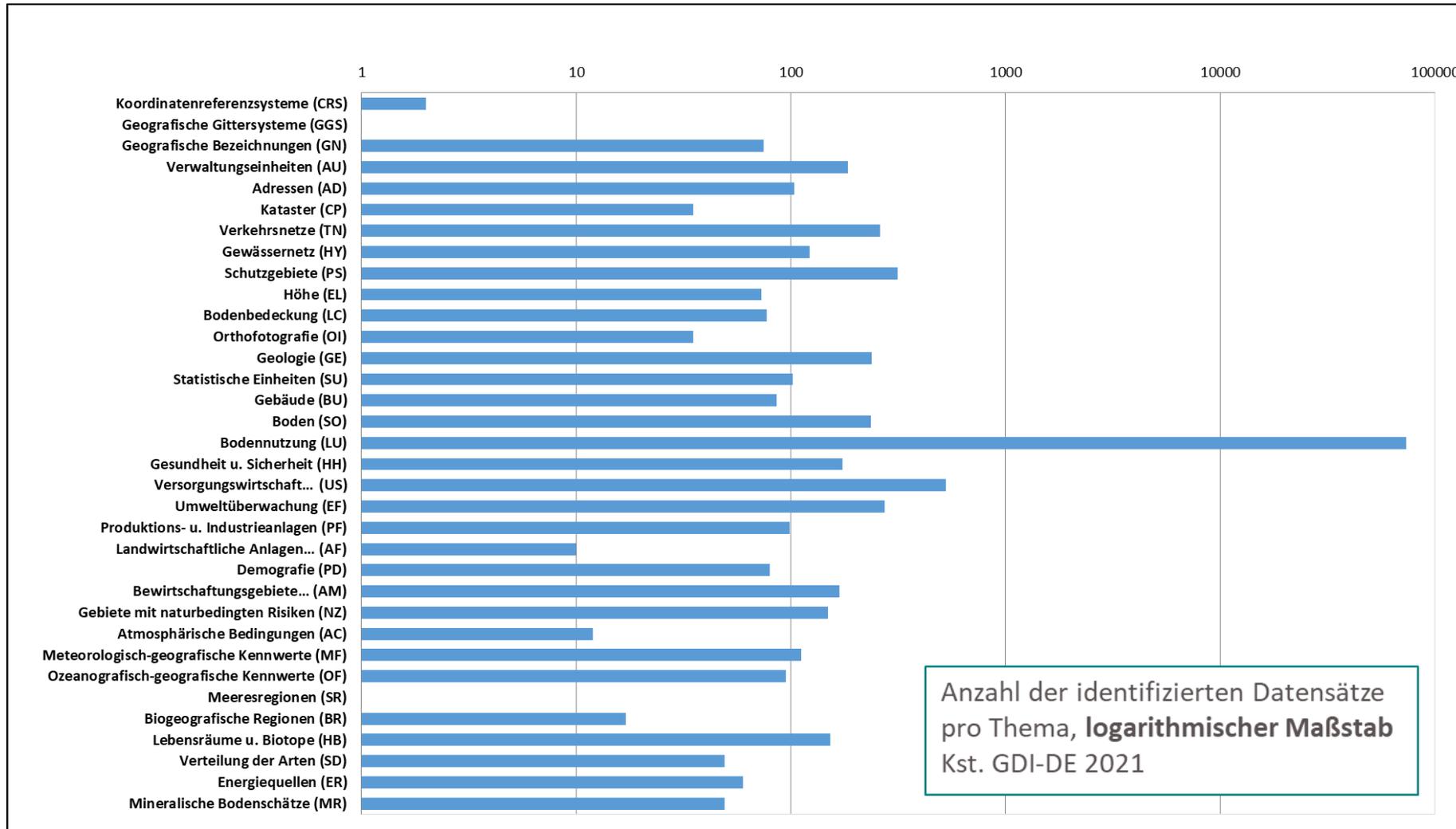
Durchschnittswerte
EU Mitgliedstaaten

YEAR	DSi1.1	DSi1.2	DSi1.3	DSi1.4	DSi1.5
2019	164	142	47	0	74
2020	161	182	51	0	94
2021	167	192	55	2	109

availability of
spatial data and
services



Anzahl der identifizierten Datensätze pro Thema (DE)



Anzahl der identifizierten Datensätze pro Thema, **logarithmischer Maßstab**
Kst. GDI-DE 2021

Konformität der Metadaten



Indikator	Beschreibung	2019	2020	2021
MDi1.1	Konformität Metadaten zu Datensätzen	65,4%	19,0%	71,0%
MDi1.2	Konformität Metadaten zu Diensten	91,7%	80,0%	94,0%

- Viele strukturelle Fehler aus 2020 bereinigt
- Fehler bei Umstellung zu TG 2.0, u. a.
 - Angaben d. Beschränkungen zum öffentlichen Zugang
 - Angaben d. Bedingungen für Zugang und Nutzung
 - codeList-Referenz bei d. Metadaten-/Ressourcensprache



INSPIRE
Infrastructure for Spatial Information in Europe



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 MG subgroup for action MWIP-8
Date of publication	2017-03-00
Subject	Technical Guidance for INSPIRE metadata for datasets and services
Status	Version 2.8.1 <small>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 http://source.ec.europa.eu/inspire/mwip/2016/MIG_C/minutes/)</small>
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
License	Creative Commons Attribution (cc-by) 4.0 http://creativecommons.org/licenses/by/4.0/
Identifier	http://source.ec.europa.eu/inspire/mwip/2016/metadata-iso-19139-2.1 (latest English version of 2.8) http://source.ec.europa.eu/inspire/mwip/2016/metadata-iso-19139-2.1 (this English version)
Contributor	http://source.ec.europa.eu/inspire/mwip/2016/metadata-iso-19139-2.1/contributors
Language	EN





calculated automatically (Validator)

YEAR	MDi1.1	MDi1.2
2019	38%	38%
2020	55%	67%
2021	78%	92%

conformity of metadata

Ergebnisse

INSPIRE GEOPORTAL
Enhancing access to European spatial data

European Commission > INSPIRE > Geoportal

Home | Priority Data Sets Viewer | Thematic Viewer | Harvesting status | Find out more about

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

Germany

INSPIRE-4fed3eb0-06fa-11ea-8480-525400695e9c

MD Catalogue URL: <https://gdk.gdi-de.org/gdi-de/srv/ger/csw>
Endpoint ID: INSPIRE-4fed3eb0-06fa-11ea-8480-525400695e9c
The date of harvest metadata: Mon, 20 Dec 2021 06:08:02 GMT

Overview statistics of the harvested metadata

Dataset: 76614	Series: 579	Services: 117891
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Results of evaluation using INSPIRE Reference Validator

Metadata Dataset		Metadata Services	
Conformant: 55154	NOT Conformant: 22039	Conformant: 110763	NOT Conformant: 7128

[Click to download the test reports of failed records](#) (Metadata Dataset)
[Click to download the test reports of failed records](#) (Metadata Services)

Summary of metadata failing validation in [this endpoint](#) (batch file identifier, metadata identifier, metadata type, total number and ids of failed test assertions)
Summary of metadata failing validation in [all endpoints](#) (see "readme" sheet for details)

https://inspire-geoportal.ec.europa.eu/mr2021_details.html?country=de

Fehlerreports

Results from the metadata validation

Quelle: JRC



Results of evaluation using [INSPIRE Reference Validator](#)

Metadata Dataset

Conformant: 141 NOT Conformant: 6

[Click to download the test reports of failed records](#)

Metadata Services

Conformant: 211 NOT Conformant: 13

[Click to download the test reports of failed records](#)

Summary of metadata failing validation in [this endpoint](#) (batch file identifier, metadata identifier, metadata type, total number and ids of failed test assertions)
 Summary of metadata failing validation in [all endpoints](#) (see "readme" sheet for details)

ZIP files including failed reports in HTML and JSON

Metadata Dataset

Conformant: 141 NOT Conformant: 6

[Click to download the test reports of failed records](#)

Metadata Services

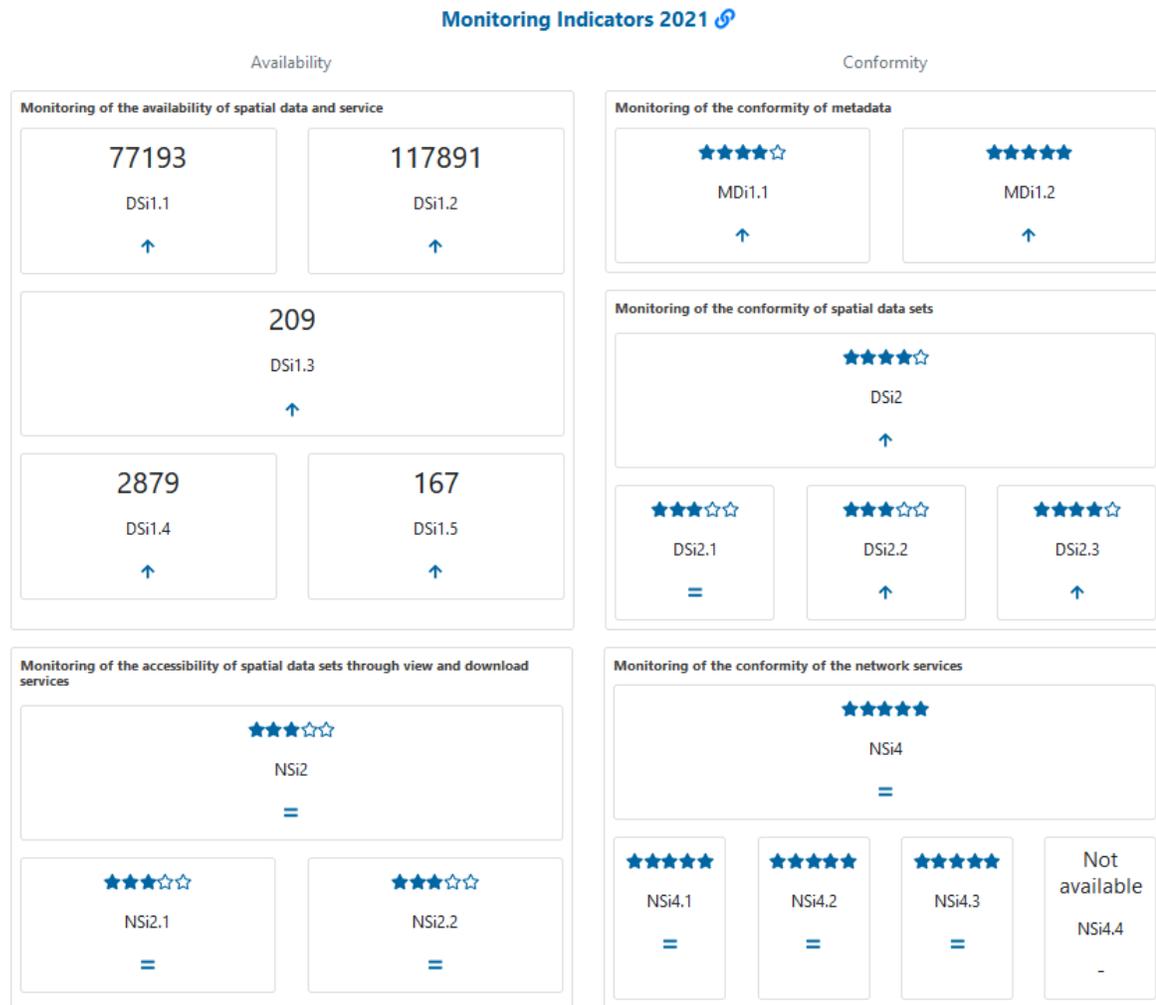
Conformant: 211 NOT Conformant: 13

[Click to download the test reports of failed records](#)

Summary of metadata failing validation in [this endpoint](#) (batch file identifier, metadata identifier, metadata type, total number and ids of failed test assertions)
 Summary of metadata failing validation in [all endpoints](#) (see "readme" sheet for details)

	A	B	C	D	E	F
1	file_id	md_id	type	error_count	errors	
2	121-140/1	59630bde-6361-4175-8f7b-1791ecfa78cf	dataset	1	1.4	
3	281-300/17	e02e7c33-818a-463e-a565-3847f2b8cb30	dataset	1	2.5	
4	341-360/14	aac1ad8b-4fb3-4bea-803c-64c8a22b33fc	dataset	1	C.16	
5	341-360/2	326ef9d5-78fb-496e-9215-07ae1d95afec	dataset	2	C.1 C.16	
6	361-371/5	eeeba0a6-0fe8-4be3-8392-39851d3f98c3	service	1	C.16	
7	361-371/8	f62e9051-5374-4d1d-89db-522f71839a7f	service	1	C.16	

https://inspire-geoportal.ec.europa.eu/mr2021_details.html?country=de



► Notes on calculation of MDi1.1 and MDi1.2

Documentation:

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 [🔗](#)

- Visualization of indicators

- star-based scoring system (for percentage indicators):



- comparison against 2020 results:

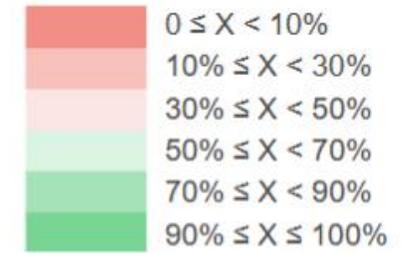
- for relative number indicators:

- ↑ increase of at least 10%
- ↓ decrease of at least 10%
- = increase or decrease of less than 10%

- for absolute number indicators:

same rule but considering 10% of the 2020 values

https://inspire-geoportal.ec.europa.eu/mr2021_details.html?country=de



Overall results – 2021 performance

country	DSI1.1	DSI1.2	DSI1.3	DSI1.4	DSI1.5	MDI1.1	MDI1.2	DSI2	DSI2.1	DSI2.2	DSI2.3	NSI2	NSI2.1	NSI2.2	NSI4	NSI4.1	NSI4.2	NSI4.3	NSI4.4
AT	522	596	135	262	258	98%	99%	77%	89%	81%	71%	50%	87%	56%	97%	100%	96%	97%	#N/A
BE	597	242	283	498	85	93%	64%	70%	95%	67%	66%	61%	88%	65%	92%	83%	92%	92%	#N/A
BG	174	35	130	55	109	41%	60%	98%	100%	100%	99%	48%	48%	52%	0%	0%	0%	0%	#N/A
CH	212	33	0	0	7	0%	0%	2%	6%	2%	0%	1%	2%	1%	0%	0%	0%	0%	#N/A
CY	42	61	11	0	0	0%	0%	2%	0%	25%	0%	0%	0%	62%	0%	#N/A	0%	0%	#N/A
CZ	88	188	88	18	78	58%	88%	18%	85%	81%	81%	58%	88%	78%	88%	100%	88%	88%	100%
DE	77193	117891	209	2879	167	71%	94%	74%	57%	60%	74%	60%	66%	63%	99%	100%	98%	99%	#N/A
DK	130	234	81	0	134	82%	87%	81%	98%	88%	87%	24%	81%	23%	98%	100%	94%	98%	#N/A
EE	85	114	23	0	85	95%	73%	100%	100%	100%	100%	55%	65%	55%	96%	100%	94%	98%	#N/A
EL	60	21	55	0	36	97%	100%	3%	40%	#N/A	0%	98%	98%	98%	5%	100%	0%	0%	#N/A
ES	243	301	92	50	180	93%	98%	100%	100%	100%	100%	43%	79%	45%	100%	100%	100%	100%	#N/A
FI	646	205	35	177	153	55%	44%	23%	14%	14%	30%	9%	36%	15%	55%	0%	55%	55%	#N/A
FR	224	56	146	11	101	2%	27%	78%	84%	92%	75%	4%	10%	25%	7%	0%	9%	0%	#N/A
HR	147	224	18	22	98	96%	94%	97%	100%	100%	95%	26%	65%	28%	92%	100%	90%	97%	#N/A
HU	120	63	21	0	9	0%	0%	39%	46%	37%	43%	8%	11%	13%	13%	50%	7%	11%	#N/A
IE	79	21	42	0	79	99%	100%	100%	100%	100%	100%	53%	56%	54%	100%	100%	100%	100%	#N/A
IS	91	27	5	2	86	98%	96%	55%	67%	71%	38%	0%	0%	40%	0%	#N/A	0%	0%	#N/A
IT	4942	1920	236	3168	833	99%	99%	30%	33%	22%	28%	5%	10%	13%	3%	25%	3%	3%	0%
LI	70	3	0	0	51	1%	0%	11%	87%	16%	7%	13%	17%	16%	50%	#N/A	100%	0%	#N/A
LT	132	130	109	0	132	96%	100%	98%	97%	100%	99%	45%	45%	95%	100%	100%	100%	100%	#N/A
LU	309	59	94	0	309	100%	100%	72%	100%	94%	62%	80%	86%	91%	100%	100%	100%	100%	#N/A
LV	167	258	73	0	0	0%	0%	75%	77%	64%	81%	33%	59%	37%	3%	#N/A	5%	2%	#N/A
MT	150	152	48	0	150	99%	99%	100%	100%	100%	100%	99%	100%	99%	100%	100%	100%	100%	#N/A
NL	203	342	59	0	175	56%	65%	50%	65%	67%	42%	55%	67%	58%	94%	100%	94%	94%	#N/A
NO	144	238	14	2	142	1%	0%	10%	11%	11%	8%	15%	19%	46%	15%	100%	16%	14%	#N/A
PL	147	244	55	0	146	100%	100%	94%	100%	50%	92%	50%	54%	56%	97%	100%	95%	99%	#N/A
PT	505	508	149	208	201	100%	97%	50%	63%	49%	49%	57%	79%	66%	69%	#N/A	75%	62%	#N/A
RO	103	76	27	15	88	40%	87%	42%	70%	31%	34%	18%	21%	20%	90%	100%	94%	85%	#N/A
SE	242	215	60	9	240	78%	86%	100%	100%	100%	99%	79%	90%	83%	100%	100%	100%	100%	100%
SI	91	128	9	0	77	69%	92%	88%	100%	79%	90%	1%	57%	9%	98%	#N/A	95%	100%	#N/A
SK	213	367	59	10	180	100%	98%	15%	18%	9%	15%	62%	75%	65%	24%	100%	24%	23%	100%

Konformität der Geodatensätze



Indikator	Beschreibung	2019	2020	2021
DSi2	Konformität Geodatensätze	56,0%	55,3%	74,0%
DSi2.1	Konformität Anhang-I-Geodatensätze	40,0%	58,3%	57,0%
DSi2.2	Konformität Anhang-II-Geodatensätze	33,0%	50,1%	60,0%
DSi2.3	Konformität Anhang-III-Geodatensätze	57,1%	55,4%	74,0%

- Deutliche Verbesserung der Konformität für die Geodatensätze zu den Anhang II und III-Themen
- Leichter Rückgang der Konformität der Geodatensätze zu den Anhang I-Themen
- Indikatorberechnung basierend auf Selbstauskunft in den Metadaten



YEAR	DSi2	DSi2.1	DSi2.2	DSi2.3
2019	38%	73%	33%	35%
2020	43%	75%	47%	38%
2021	70%	87%	67%	62%

conformity of
spatial data sets

Konformität der Netzdienste



Indikator	Beschreibung	2019	2020	2021
NSi4	Konformität Netzdienste	82,4%	98,5%	99,0%
NSi4.1	Konformität Suchdienste	100,0%	100,0%	100,0%
NSi4.2	Konformität Darstellungsdienste	84,6%	98,4%	98,0%
NSi4.3	Konformität Downloaddienste	79,1%	98,5%	99,0%
NSi4.4	Konformität Transformationsdienste	n.a.	n.a.	n.a.

- Gleichbleibend hoch gegenüber Vorjahr
- Indikatorberechnung basierend auf Selbstauskunft in den Metadaten



YEAR	NSi4	NSi4.1	NSi4.2	NSi4.3	NSi4.4
2019	49%	50%	46%	51%	0%
2020	71%	67%	67%	83%	0%
2021	92%	100%	94%	92%	100%

conformity of
network services

Conformity of datasets and services

Self-declared conformity

- A random, manual QC of conformity was performed on a small sample (where results were close to 100%) using the INSPIRE Reference Validator.
 - The overall result of the JRC manual conformity is very low:
 - Between 0 and 10%!
 - Despite no conclusions could be derived, we proved that the calculated values for the conformity indicators are not reliable:
 - DSi1.1, DSi1.2, DSi1.3, DSi1.4, DSi1.5
 - NSi4, NSi4.1, NSi4.2, NSi4.3, NSi4.4
 - The INSPIRE Reference Validator was probably not used to check the conformity in many cases.



Zugänglichkeit von Datensätzen über Darstellungs- und Downloaddienste

Indikator	Beschreibung	2019	2020	2021
NSi2	Zugänglichkeit über Darstellungs- und Downloaddienste	34,7%	61,1%	60,0%
NSi2.1	Zugänglichkeit über Darstellungsdienste	39,5%	64,4%	66,0%
NSi2.2	Zugänglichkeit über Downloaddienste	37,9%	63,2%	63,0%

- 60 % aller Datensätze sind über einen Darstellungs- **und** Downloaddienst erreichbar
- Kleinere Schwankungen gegenüber 2020



**calculated
automatically
(Geoportal)**

YEAR	NSi2	NSi2.1	NSi2.2
2019	16%	32%	20%
2020	32%	44%	42%
2021	45%	57%	54%

accessibility of
spatial data sets

Fazit:

- Die Anzahl der identifizierten Ressourcen wurden um ein Drittel erhöht (BW).
- Die Indikatorwerte zur Konformität der Datensatz-/Serien-Metadaten (MDi1.1) und Dienst-Metadaten (MDi1.2) wurden deutlich verbessert.
- Die Umstellung der Metadaten auf die Anforderungen der TG 2.0 ist noch nicht vollumfänglich umgesetzt.
- Die interoperable Bereitstellung aller Geodatensätze zu Anhang II und III-Themen wurde verbessert.
- Wenig Veränderung hinsichtlich der Zugänglichkeit der Datensätze.
- Die Zugänglichkeit der Datensätze über Dienste wird als wichtigster Indikator für die Nutzbarkeit der INSPIRE-Daten angesehen.
- Verbesserung dringend empfohlen.
- JRC vermutet unverlässliche Indikatorwerte zur Konformität von Datensätzen und Diensten.

To Do's:

- Korrektur der strukturellen und inhaltlichen Fehler
 - Verbesserung der Zugänglichkeit
- Bereitstellung der aktualisierten Metadaten in den **originären** (Bund-/Länder-) Katalogen bis

21. November 2022

- Ab 22.11.2022 erfolgt das Harvesting der Bund-/Länderkataloge in den Geodatenkatalog

Kompetenz durch Kooperation

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