

INSPIRE Implementation in Poland:

State of Play Autumn 2007

Country report

elaborated by the Institute of Geodesy and Cartography
requested by the Head Office of Geodesy and Cartography
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Introduction

The report summarises the SDI state of play in Poland, and reflects the degree to which SDI in Poland is in accordance with the ideas set out in the INSPIRE Directive and scoping documents. The report answers the questions prepared by the Spatial Applications Division of K.U.Leuven R&D (SADL) and the Interdisciplinary Centre for Law and ICT (ICRI). These questions concern (1) state of play of issues related to the infrastructure, especially to data and metadata availability, services and use of the existing infrastructure as well as (2) state of play of issues related to data sharing.

The document is mainly based on experts' (involved in SDI creation in Poland) knowledge, relevant documents, results of survey on georesources and on public geoportals functionality conducted by the Institute of Geodesy and Cartography in Autumn 2007.

Important comments provided by the members of the Council for INSPIRE Implementation in Poland amended the report.

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Acronyms

ARiMR - Agency for Restructuring and Modernization of Agriculture

GUGiK - Head Office of Geodesy and Cartography

IMGW - Institute of Meteorology and Water Management-

KERM - European Committee of Council of Ministers

MSWiA - Ministry of Interior and Administration

PASI - Polish Association of Spatial Information (PTIP)

ODGiK - Geodetic and Cartographic Documentation Centre

INSPIRE Implementation

The role of the national contact point in Poland, responsible for contacts with the Commission in relation to the INSPIRE Directive, is held by the Head Office of Geodesy and Cartography (GUGiK), which acts (from 2006) under the supervision of Ministry of Interior and Administration (MSWiA). In January 2008 Surveyor General of Poland was authorized to perform actions to transpose the INSPIRE Directive into the Polish law. The transposition of the INSPIRE Directive will be performed in conformance with the procedure, accepted on April 21, 2007 by the European Committee of Council of Ministers (KERM) in Poland. KERM, established according to directive no. 30 of Prime Minister on March 23, 2004 (M.P. No. 57, item 646 with further changes), acts as the operative decision body. Majority of decisions connected to the Polish integration policy are agreed upon and decided on its forum. Particularly, KERM fixes a schedule of legislation activities, connected with implementation of the European Union law into the Polish law, and considers law projects.

In July 2007 Surveyor General of Poland established the Council for INSPIRE Implementation in Poland. The Council is composed of representatives of ministries, agencies and other governmental organizations participating in creating the Polish Spatial Information Infrastructure, including: Ministry of Interior and Administration, Central Statistical Office, Head Office of Geodesy and Cartography, Agency for Restructuring and Modernization of Agriculture, Ministry of Culture and National Heritage, General Board of State Forests National Forest Holding, Ministry of Environment, Chief Inspectorate of Environmental Protection, Military Property Agency. The chairman of the Council is Prof. Jerzy Gaździcki, PhD, who is also the president of the Polish Association of Spatial Information (PASI). The vice- chairman of the Council is Adam Iwaniak, PhD, who is vice-president of GUGiK. The Council responsibilities are to support activities connected with legal, organizational and economic aspects of creating Polish Spatial Information Infrastructure, to recommend interdepartmental activities and enterprises in the field of geoinformation, to propagate geoinformation applications in public administration and economy and also to promote the use of standards in the field of geographic information.

The particular activities connected with INSPIRE Directive implementation are carried on by proper ministries and governmental agencies responsible for the data mentioned in the Annexes I-III of the Directive.

Data Sharing State of Play

Legal aspects of spatial data sharing

The regulations of national law that specify rules and procedure of access to spatial information can be divided into general and particular regulations. The general regulations belong to the act of February 17, 2005 *on computerization of business activities of bodies conducting public tasks* (Journal of Laws No. 64, item 665) and the act from September 6, 2001 *on access to public information* (Journal of Laws No. 112, pos. 1198). Particular regulations include regulations that directly concern sharing spatial information and are assigned to particular kind of „information resource”.

Spatial information is public information according to article 1, section 1 of the act *on access to public information*. However, if there is a particular legal regulation, rules of the act *on access to public information* can't violate this act because of the conflict norm contained in article 1, section 2 of this act.

The act *on access to public information* specifies particularly sharing procedure, circumstances that limit access to information (article 5) and conditions of information processing for sharing needs (article 3, section 1, point 1). There is introduced the rule of free of charge sharing, fee is charged only in special cases. In turn, the act *on computerization of business activities of bodies conducting public tasks* specifies in article 15 additional obligations regarding sharing of data registered to public subjects in sense of article 2, section 1 of this act. In the scope that is necessary to realization of public tasks, an access to data should be free of charge and available on-line in digital form. The sharing procedure was specified in the executive regulations, given on the basis of article 15, section 3 of the act *on computerization of business activities of bodies conducting public tasks*.

Among the particular rules it should be mentioned, the Act from May 17, 1997 *geodetic and cartographic law* (Journal of Laws, No. 240, item 2027 article 18 and article 40) and executive regulations that apply on the basis of this act. Rules and procedures of sharing and using of data from the national geodetic and cartographic resources are regulated by the Decree of MSWiA from May 17, 1999, that specifies kinds of data (items) contained by the national geodetic and cartographic resources, the way and procedure of collecting and excluding this data from the resources and sharing the stored data (Journal of Laws No. 49, item 493). However, in the Decree there is no directly mentioned an information that is protected from sharing, there is only reference to other regulations (law *on*

protection on secret information, on copyright and neighboring rights as well as on protection of personal data (article 10, section 3 of Decree).

The rules of sharing information about environment are regulated by the act from April 27, 2001 on *law on environment protection* (Journal of Laws 2001 No. 62 item 627). The scope of shared information is regulated by article 19, the rules of non-sharing information about environment – by article 20, while fees for data - by article 24. The act lets fees charging (and specifies amounts) that covers costs of finding, storing and processing of information.

National law regulations of sharing spatial information are characterized with lack of homogenous, universal legal regulation regarding rules and procedure of access to spatial information. In experts opinion, as these regulations can not be admitted regulations about access to public information, because of disconformities with specificity of spatial information processing. There isn't also any closed catalogue of restrictions of information access that should uniquely indicate a scope of information protection. Referencing to other law regulations that concern information protection is not enough, because in some part these regulations have referencing character (e.g. article 5, article 23, section 1, points 2, 4 and articles 29, section 3 of the Act from August 29, 1997 on *protection of personal data* (Journal of Laws, 2002 No. 101, item 926).

Sharing spatial information between subjects of public administration goes on with general and particular regulations and in unregulated cases with legal acts on the basis of agreements between concerned parties. License agreement, which directives 2003/98/WE and INSPIRE (art. 17, par. 3) regard, till now are not commonly used. The works for preparing the template of license agreement for spatial data sharing will be undertaken in nearby future, when the transposition of INSPIRE directive is made.

Licensing framework

So far, there are no harmonized principles for granting licenses applying for every body, which produce, or reuse spatial information. However, in some case (e.g. access to CORINE Land Cover data granted by Chief Inspectorate of Environmental Protection for non - commercial purposes and non profit - activity) such license exists.

Polish Spatial Information Infrastructure State of Play

Data and metadata availability

Spatial data sets listed in the Annex 1 of the INSPIRE Directive are maintained by the Geodetic and Cartographic Service, and stored in Geodetic and Cartographic Documentation Centers in digital form. They are of different spatial resolution, quality and relevance. Spatial datasets from Annex I are also maintained by Ministry of Environment, in particular European Ecological Network Natura 2000, stored in digital format.

Spatial data sets referred to themes described in the Annex II are maintained by Head Office of Geodesy and Cartography, Ministry of Environment and Chief Inspectorate of Environmental Protection. They are already in place, in digital form.

Data sets referred to themes described in Annex III are of interests of many governmental authorities, mainly: environment, health, infrastructure, regional development, economy, agriculture, and others. The data sets are of different scale and quality, sometimes rights to the data are unclear.

Data sets of the Annexes I, II, and III are described by name, organisation responsible, scale, metadata and service availability in table 1 attached to this report.

In 2007 Surveyor General of Poland took the initiative to elaborate Polish profile of metadata for spatial data. Firstly the project of the metadata profile for data stored in geodetic and cartographic documentation centers (ODGiK) was elaborated. It was finished in April 2007 r., and made publicly available (on GUGiK WebPages) for comments. Based on the experience gained during the profile for geodetic resources elaboration the Polish profile of metadata for spatial data is being prepared. It is in line both in ISO standards concerning metadata (ISO 19 115, ISO 19 119) as well as INSPIRE implementing rules. Geological metadata profile elaborated by the Polish Geological Institute is based on Polish profile of metadata.

Services

GEOPORTAL.GOV.PL is an access point to most of the reference spatial data mentioned in the Annex I of the INSPIRE Directive. The project aiming in building Polish geoportal has started in 2004 and is conducted by the Head Office of Geodesy and Cartography as a non-profit activity. The test version was launched at www.geoportal.gov.pl in June 2006.

In 2007 amendments were made that improved and broaden its functionality. The service makes available following data:

1. Orthoimages from airborne or satellite sensors,
2. Digital Terrain Model (NMT),
3. General Geographic Data Base (BDO) at a scale 1:1 000 000,
4. Vector Smart Map Level 2 (VmapL2) at a scale 1:50 000, and
5. Raster Map of Poland (RMP) - scanned analogue topographic maps (at a scale 1:10 000, 1:50 000, 1:100 000).

Moreover, the service provides an Internet tool, the task of which is to improve the exchange of information between users of geospatial data, as well as the enhancement of search capabilities for those who look for maps. The metadata catalogue works on the basis of recognized data/information exchange standards in the Internet and is based on metadata developed in line with ISO standards. The service is available at: <http://meta.geoportal.gov.pl/>.

Besides geoportal.gov.pl some other geoportals are implemented. They allow viewing both reference and environmental data, and are maintained by public administration at different levels.

Amongst services which support viewing environmental data are:

1. GIS browser for geoenvironmental data maintained by Polish Geological Institute,
2. IMGW Internet service of meteorological and hydrological data,
3. State Forests WebGIS Service,
4. Polish Web Page of European Ecological Network Natura 2000.

Analysed geo-portals offer mostly only viewing service. Discovery service if offered is (except geoportal.gov.pl) not implemented on the basis of metadata catalogue services.

Description of selected geo-services are listed in table 2.

Reference datasets are most often publicly available by geo-services maintained by self-government at the voivodeship level. Six out of sixteen voivodeships made some geographical data available by regional geoportals. These are: lubelskie, lodzkie, mazowieckie, podlaskie, pomorskie, and zachodniopomorskie.

The most advanced functionality including data discovery based on metadata catalogue service and very broad scope of spatial data is offered by mazowieckie voivodeship in the GIS Mazovia website, available at: <http://www.gismazowska.pl>.

Occasionally cadastral data are available via Internet services, in such cases the access to the services is limited to the registered users.

Use and impact of existing infrastructure

Only limited information on use and impact of the Polish Information Spatial Infrastructure is available.

In December 2007 web page of the Polish Information Spatial Infrastructure geoportal.gov.pl was visited by 71 538 visitors (daily about 2 308 visitors), and the number of visited pages was 4 062 744 (131 056 daily). In August 2006 these figures were respectively: visitors - 35 645, visits - 66 052, pages - 4 059 049. Concluding, in the year 2007 number of visitors of geoportal.gov.pl doubled.

On-line availability of ortophotomaps at a scale of 1:10 000 is very useful for improving land cover interpretation carried out in the CORINE Land Cover 2006 update.

Undoubtedly, services of spatial data are widely used by researches, students, and different bodies that perform research or business activities in the field of GIS.

List of Contributors

The authorities and organizations listed below prepared input to the State of Play Autumn 2007.

The authorities represented in the Council for INSPIRE Implementation in Poland:

1. Central Statistical Office,
2. Chief Geologist of Poland, Polish Geological Institute,
3. Chief Inspectorate of Environmental Protection,
4. Chief Sanitary Inspectorate,
5. General Board of State Forests National Forest Holding,
6. Head Office of Geodesy and Cartography,
7. Ministry of Agriculture and Rural Development, Agency for Restructuring and Modernization of Agriculture,
8. Ministry of Culture and National Heritage,
9. Ministry of Defence, Military Property Agency,
10. Ministry of Environment,
11. Ministry of Health,
12. Ministry of Interior and Administration,
13. Ministry of Regional Development,

Other institutions, which were consulted during the report elaboration:

14. Institute of Environmental Protection,
15. Institute of Geodesy and Cartography,
16. Institute of Meteorology and Water Economy,
17. Institute of Soil Science and Plant Cultivation,
18. National Institute of Public Health,
19. Office of Surveyor of the Mazowieckie Voivodeship.
20. Polish Association for Spatial Information

Important contacts for Poland

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Table 1

Data sets ANNEX I						
Theme ¹	Data set ²	Organisation responsible	Scale/resolution	Metadata (N/Y/ISO) ³	Can be discovered, viewed, downloaded ⁴	
I-1	Coordinate Reference Systems ⁵	EUREF-POL-92 (based on ETRS89) EVRS (normal height)	Head Office of Geodesy and Cartography		N	
I-2	Geographical grid systems (harmonised multi-resolution grid)	TEMKART	Head Office of Geodesy and Cartography	250mx250m	N	
I-3	Geographical names	State Geographical Names Register	Head Office of Geodesy and Cartography, Central Statistical Office, Local authorities (commune level)		N	
I-4	Administrative units (local, regional and national boundaries)	State Boundaries Register TERYT (register of codes and names)	Head Office of Geodesy and Cartography Central Statistical Office	1:50 000	N	1,2,3 - only TERYT codes and names of units
I-5	Addresses	Lands and Buildings Register Register of Real Estate Address Numbering	Head Office of Geodesy and Cartography, Central Statistical Office, Local authorities (commune level)		N	
I-6	Cadastral parcels	Lands and Buildings	Head Office of Geodesy and	1:500, 1:1000,	N	

¹ See also description of the data themes in document D2.3 Definition of Annex Themes and Scope (<http://www.ec-gis.org/INSPIRE>)

² Name the data set. Can be a database with multiple layers and thus including several themes, or a specific data set which covers part of a theme (e.g. Natura 2000), you can also have several data sets with the same information at different scales/resolutions. Please only include only the 'basic' data sets (e.g. generalised versions derived from large scale base data sets should not be included)

³ Indicate whether the data set has no metadata (N), metadata but not according to the ISO 19115 standard (Y), or metadata according to ISO 19115 (ISO).

⁴ Can the data set be discovered (1), viewed (2), downloaded (3) through at least one such standardised service? Indicate this using the numbers (1,2,3)

⁵ This is of course not necessarily a real data set.

		Register	Cartography	1:2000, 1:5000 depends on level of urbanization		
I-7	Transport networks (road, rail, air, water and links between networks)	VMap L2	Ministry of National Defence, Head Office of Geodesy and Cartography	1:50 000	ISO	1,2
I-8	Hydrography (including marine areas, all water bodies, river basins, etc.)	Computer Map of Hydrographic Division of Poland	Ministry of Environment (Institute of Meteorology and Water Management)	1:50 000	Y	1,2
		Major groundwater bodies ("GZWP")	Ministry of Environment (Polish Geological Institute)	1:50 000	Y	1,2
I-9	Protected sites (designated by national, EU or international legislation)	Protected areas in Poland	Institute of Environmental Protection	1:50 000	ISO	1
		Natura 2000 National Historic Monuments Register	Ministry of Environment Ministry of Culture and National Heritage, National Heritage Board of Poland	1:10 000	ISO N	1,2

Data sets ANNEX II

Data sets ANNEX II						
Theme ⁶	Data set ⁷	Scale/resolution	Organisation responsible	Metadata (N/Y/ISO) ⁸	Can be discovered, viewed, downloaded ⁹	
II-1	Elevation (land, ice and ocean surfaces; terrestrial elevation, bathymetry, shoreline)	NMT (Digital Terrain Model)	Horizontal -25m, 40m, 50m Vertical - 1.5 m	Ministry of National Defence Head Office of Geodesy and Cartography	ISO	1,2
II-2	Land cover (physical and biological)	CORINE Land Cover PL	1:100 000	Chief Inspectorate of Environmental Protection	Y	
II-3	Orthoimagery (geo-referenced image data)	ortophotomaps	1:10 000	Head Office of Geodesy and Cartography	ISO	1,2
II-4	Geology (including bedrock, aquifers and geomorphology)	HYDRO Bank	Point data	Ministry of Environment (Polish Geological Institute)	Y	1,2
		Hydrogeological Map of Poland	1:50 000		Y	1,2
		Groundwater Monitoring (Since 1980, 800 points)	Point data		Y	1,2
		Geodatabase MG	1:50 000, 1:200 000, 1:500 000		ISO	1,2,3
		Central Geological Database including: documents, borehole data, research sites, analyses, mineral deposits, geological	1-50		N	1,2,3
		3DGP - The numerical spatial model of geological structure of Poland	1:500 000 horizontal 250x250m, vertical 1 m		N	1,2,3

⁶ See also description of the data themes in document D2.3 Definition of Annex Themes and Scope (<http://www.ec-gis.org/INSPIRE>)

⁷ Name the data set. Can be a database with multiple layers and thus including several themes, or a specific data set which covers part of a theme (e.g. Natura 2000), you can also have several data sets with the same information at different scales/resolutions. Please only include only the 'basic' data sets (e.g. generalised versions derived from large scale base data sets should not be included)

⁸ Indicate whether the data set has no metadata (N), metadata but not according to the ISO 19115 standard (Y), or metadata according to ISO 19115 (ISO).

⁹ Can the data set be discovered (1), viewed (2), downloaded (3) through at least one such standardised service? Indicate this using the numbers (1,2,3)

Data sets ANNEX III						
Theme ¹⁰	Data set ¹¹	Scale/resolution	Organisation responsible	Metadata (N/Y/ISO) ¹²	Can be discovered, viewed, downloaded ¹³	
III-1	Statistical units (for dissemination or use of statistical data)	Part of Lands and Buildings Register	1:5000	Head Office of Geodesy and Cartography, Central Statistical Office	N	
III-2	Buildings (geographical location of buildings)	Lands and Buildings Register	1:500, 1:1000, 1:2000, 1:5000	Head Office of Geodesy and Cartography	N	
III-3	Soil (and sub-soil characteristics)	Soil-agriculture map	1:100 000, 1:500 000, 1:1 000 000	Institute of Soil Science and Plant Cultivation	N	
III-4	Land use (e.g. residential, industrial, commercial)	Recreational - bathing sites	Point data	Chief Sanitary Inspectorate with National Institute of Public Health -National Institute of Hygiene	N	1,2
		Geoenvironmental database	1:50 000	Ministry of Environment (Polish Geological Institute)	Y	
III-5	Human health and safety (see full description in Annex)	Epidemiological risk	Administrative units up to NUTS5	Ministry of Health, Central Statistical Office	N	
		Discharged patients from hospitals	Point data	National Institute of Public Health-National Institute of Hygiene	N	

¹⁰ See also description of the data themes in document D2.3 Definition of Annex Themes and Scope (<http://www.ec-gis.org/INSPIRE>)

¹¹ Name the data set. Can be a database with multiple layers and thus including several themes, or a specific data set which covers part of a theme (e.g. Natura 2000), you can also have several data sets with the same information at different scales/resolutions. Please only include only the 'basic' data sets (e.g. generalised versions derived from large scale base data sets should not be included)

¹² Indicate whether the data set has no metadata (N), metadata but not according to the ISO 19115 standard (Y), or metadata according to ISO 19115 (ISO).

¹³ Can the data set be discovered (1), viewed (2), downloaded (3) through at least one such standardised service? Indicate this using the numbers (1,2,3)

III-6	Utility and governmental services (sewage, waste management, energy, etc.)	Geodetic utilities register	1:1 000	Head Office of Geodesy and Cartography	N	
		Hospitals, public water supply	point data	Chief Sanitary Inspectorate National Institute of Public Health-National Institute of Hygiene	N	
III-7	Environmental monitoring facilities (emissions, ecosystem parameters)	EIONET data	Point data	Chief Inspectorate of Environmental Protection	Y	1,2
		IMGW climatological and water-gauge stations	Point data	Ministry of Environment (Institute of Meteorology and Water Management-IMGW)	N	
		Forests monitoring database	Point data	State Forests National Forest Holding	N	
		MPIS data	Point data	Chief Sanitary Inspectorate with National Institute of Public Health -National Institute of Hygiene	N	
		Groundwater Monitoring (Since 1980, 800 points)	Point data	Ministry of Environment (Polish Geological Institute)	Y	
„SOPO” landslides	1:10 000	Ministry of Environment (Polish Geological Institute)	Y			
III-8	Production and industrial facilities (water abstraction, mining, storage sites)	Water abstraction points (punkty poboru wody)	Point data	Chief Sanitary Inspectorate National Institute of Public Health-National Institute of Hygiene	N	1,2
		Geoenvironmental database	1:50 000	Ministry of Environment (Polish Geological Institute)	Y	
III-9	Agricultural and aquacultural facilities			Ministry of Agriculture and Rural Development		
III-10	Population distribution - demography	Regional Data Bank by NUTS	Statistical and administrative units	Central Statistical Office	N	

III-11	Area management / restrictions / regulation zones / reporting units	Forests Districts Hunting units	1:50 000 1:500 000	Ministry of Environment	N	
III-12	Natural risk zones (e.g. atmospheric, hydrologic, seismic, volcanic, wildfire)	Forest fire risk database Geoenvironmental database Flood risk zones	 1:50 000 1:10 000	State Forests National Forest Holding Ministry of Environment (Polish Geological Institute) Ministry of Environment (Regional Water Management Board)	N N N	2
III-13	Atmospheric conditions	IMGW observation meteorological data Synoptic atmospheric maps Forecasts maps	Point data 1:1 000 000 1:1 350 000	Ministry of Environment (Institute of Meteorology and Water Management- IMGW)	N N N	2
III-14	Meteorological geographical features (weather conditions, measurements)	IMGW observation meteorological data from 1951	Point data	Ministry of Environment (Institute of Meteorology and Water Management- IMGW)	N	
III-15	Oceanographic geographical features (currents, salinity, wave heights, etc.)	Oceanographic database		Ministry of Environment (Institute of Meteorology and Water Management- IMGW)	N	
III-16	Sea regions (physical conditions of seas and saline water bodies)	Baltic Sea observation database		Ministry of Environment (Institute of Meteorology and Water Management- IMGW)		
III-17	Bio-geographical regions (areas with homogeneous ecological conditions)	Physicogeographical regions Landscape types	1:1 500 000	Warsaw University and Institute of Geodesy and cartography	N N	
III-18	Habitats and biotopes (geographical areas for specific ecological conditions)	NATURA 2000 CORINE Biotopes The Integrated GIS Database <i>Nature</i>	1:10 000 1:100 000 1:100 000	Ministry of Environment Ministry of Environment Institute of Environmental	ISO N N	

		<i>Conservation in Poland</i>		Protection		
III-19	Species distribution (geographical boundaries for animal and plant species)	NATURA2000 CORINE Biotopes	1:10 000 1:100 000	Ministry of Environment Ministry of Environment	ISO N	
III-20	Energy resources (hydrocarbons, hydro-power, bio-energy, solar, wind, etc.)	„MIDAS” - Deposits database	1:50 000	Ministry of Environment (Polish Geological Institute)	N	1,2
		„ROG” Mining areas database	1:5 000	Ministry of Environment (Polish Geological Institute)	N	1,2
		Geoenvironmental database	1:50 000	Ministry of Environment (Polish Geological Institute)	N	1,2
		Mineral resource of Poland	1:1 000 000	Ministry of Environment (Polish Geological Institute)	N	2
III-21	Mineral resources (metal ores, industrial minerals depth/height)	„MIDAS” - Deposits database	1:50 000	Ministry of Environment (Polish Geological Institute)	N	1,2
		„ROG” Mining areas database	1:5 000	Ministry of Environment (Polish Geological Institute)	N	1,2
		Geoenvironmental database	1:50 000	Ministry of Environment (Polish Geological Institute)	N	1,2
		Mineral resource of Poland	1:1 000 000	Ministry of Environment (Polish Geological Institute)	N	2

Table 2

Services						
Service ¹⁴	Organisation responsible	Type of service ¹⁵	Metadata (N/Y/ISO) ¹⁶	Open for Public (Y/N)	Free/Not free ¹⁷ (Y/N)	
1	Head Office of Geodesy and Cartography WebMap service http://meta.geoportal.gov.pl/Portal	Head Office of Geodesy and Cartography	discover view transformation	ISO	Y	Y
2	Photogrammetry Data Management System http://szdf.codgik.gov.pl/map.aspx	Head Office of Geodesy and Cartography	discover view download	N	Y	Y Y Y (only for administration)
	Geoportal – IKAR http://ikar.pgi.gov.pl/Portal	Polish Geological Institute	discover view	ISO	Y	Y
	Central Geological Database <i>Spatial Sub-system - the location data (GIS) describing the performed geological investigations and sites</i> http://baza.pgi.gov.pl/website/cbdg	Polish Geological Institute	discover view	N	Y	Y
	Environmental Geology http://baza.pgi.gov.pl/mggp	Polish Geological Institute	discover view	N	Y	Y
	Polish Hydrogeological Survey (PSH) http://baza.pgi.gov.pl/psh	Polish Geological Institute	discover view	N	Y	Y

¹⁴ List the names/IDs and where possible the link (URL) of all the discover, view, download, transformation and invoking services that are part of your infrastructure

¹⁵ Indicate the type (discover, view, download, transformation and invoking services)

¹⁶ Indicate whether the service has no metadata (N), or metadata according to ISO 19119 (ISO).

¹⁷ Whether or not the service is free for use.

3DGP - The numerical spatial model of geological structure of Poland http://www.pgi.gov.pl/3d	Polish Geological Institute	discover view download	N	Y	Y
„ROG” Mining areas database http://baza.pgi.waw.pl/geow	Polish Geological Institute	discover view	N	Y	Y
SOPO - landslides	Polish Geological Institute	testbed	N	N	-
INGW Internet service of meteorological and hydrological data http://www.imgw.pl/wl/internet/zz/baltyk/baltyk_prognum.html	Institute of Meteorology and Water Management	discover view download	N	Y	Y
Service of Central Statistical Office for Regional Data Bank http://www.stat.gov.pl/bdr/strona.mapa	Central Statistical Office	discover view download	N	Y	Y
GIS Mazovia- service of the Surveyor of the Mazowieckie Voivodeship http://www.gismazowska.pl/	The Office of the Surveyor of the Mazowieckie Voivodeship	discover view	N	Y	Y
Gateway to Malopolska - GIS maps for Malopolska Region http://mapy.wrotamalopolski.pl/wrotamalopolski1.htm	Self-Government of the Malopolskie Voivodeship	discover view	N	Y	Y
Internet GIS service for Wroclaw county http://www.wrosip.pl/	Wroclaw County	discover view	N	Y	Y
Regional Spatial Information System of Lodzkie Voivodeship http://www.rsip.lodzkie.pl/skor_map/viewer.htm	Self-Government of the Lodzkie Voivodeship	discover view	N	Y	Y
Lodz Land Information System - InterSIT http://www.mapa.lodz.pl/mapa.php	Self-Government of the City of Lodz	discover view	N	Y	Y
State Forests WebGIS Service http://www.lp.gov.pl/mapa	State Forests National Forest Holding	discover view	N	Y	Y
Polish Web Page of European Ecological Network Natura 2000 http://natura2000.mos.gov.pl/natura2000/	Ministry of Environment (European Ecological Natura 2000 Network)	discover view	N	Y	Y