

## IMPLEMENTATION OF THE INSPIRE DIRECTIVE IN POLAND IN THE SCOPE OF SPATIAL DATA 'LAND USE' THEME

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### Summary

The article presents the issues linked to the implementation of the INSPIRE Directive in Poland, within the scope of the spatial data 'land use' theme. We present legal regulations in the field of Spatial Information Infrastructure, the tasks of the lead authority in this topic, the participation of other bodies and agencies in the implementation of the tasks of the lead authority, the manner of implementation of these tasks, as well as reflections of the authors upon the changes in competencies and responsibilities, related in particular to the placement of the Chief State Surveyor under the supervision of the minister responsible for construction, planning, zoning, and housing.

### Keywords

infrastructure for Spatial Information • INSPIRE • meta-data • 'land use' theme of spatial data  
• zoning and planning standards • list of spatial codes

### 1. Introduction

'INSPIRE' is the Infrastructure for Spatial Information in Europe. The infrastructure is a set of legal, organizational, administrative and technical instruments, along with related services – operations that can be performed using computer software on the data contained in spatial data sets or the related metadata [Litwin, Rossa 2010].

The legal basis of the aforementioned infrastructure is the Directive 2007/2/EC of the European Parliament and of the Council, dated 14 March 2007, establishing an Infrastructure for Spatial Information in the European Community (INSPIRE). In accordance with the above Directive, the Infrastructure for Spatial Information in the European Community should support the development of Community policy in relation to policies and activities that may have a direct or indirect impact on the environment. This infrastructure should be based on Infrastructures for Spatial Information created by the Member States, and the common implementing rules customized thereto, supplemented with measures at Community level. These measures should

ensure the cohesion of Infrastructures for Spatial Information created by the Member States, and the possibility of their use in the Community and trans-border context. Infrastructures for Spatial Information in the Member States should be designed in such a manner as to:

- ensure storing, sharing and maintaining spatial data at the appropriate level;
- make it possible to combine, in a uniform manner, the spatial data from various sources throughout the Community, to facilitate a joint use by multiple users and multiple applications;
- make it possible to share spatial data collected at one level of public authorities, by other public authorities;
- make spatial data available under conditions which do not unduly restrict their extensive use;
- make it easy to search the available spatial data, to evaluate their suitability for a determined purpose, and to know the conditions applicable to their use.

The aforementioned Directive introduces general regulations, aimed at the establishment of INSPIRE for the purposes of Community environmental policies and any policies or activities which may have an impact on the environment.

INSPIRE is based on the Infrastructures for Spatial Information established and operated by Member States [Dyrektywa... 2007]. All Member States were required to transpose the directive into their respective national legal systems. In Poland, the INSPIRE Directive was transposed by the Law of 4 March 2010 on the Spatial information infrastructure [Dz. U. Nr 76, poz. 489 z późn. zm.], hereinafter referred to as the 'ISI Act.'

The purpose of the construction of the Infrastructure for Spatial Information is the removal of barriers for public access to spatial information and implementing the idea of reusing once acquired spatial information [Białousz, Bielecka 2011].

Implementation of the INSPIRE Directive should be based on the schedule, which is shown below, broken down into three annexes (Table 1).

In accordance with the INSPIRE directive, spatial data are divided into thematic groups, which were included in the Annexes to the said Directive.

This article examines one of the topics of spatial data, which concerns 'land use.' This subject has been included in the third thematic group, as theme 4 (Annex to the ISI Act).

## 2. Legal regulations concerning the Infrastructure for Spatial Information in Poland

The source of law, containing the rules for the creation and the use of spatial information infrastructure, which include:

Table 1. Implementation schedule for the INSPIRE Directive

Deadline	Annex I	Annex II	Annex III
3 December 2010	Search metadata available for sets of spatial data (SD) and services		
09 November 2011	SD sets available within services of browsing and searching in the INSPIRE geoportals (data do not yet have to be compliant with the secondary legislation (implementation regulations))		
23 November 2012	Recently collected, and fundamentally rearranged SD compliant with the secondary legislation, and available via online services		
28 December 2012	SD set available within the downloading and editing services (where necessary)		
03 December 2013			<div style="display: flex; justify-content: space-between;"> <div style="width: 33%; background-color: #ffffcc; padding: 2px;">Search metadata available for sets of spatial data (SD) and services</div> <div style="width: 33%; background-color: #ffcc99; padding: 2px;">SD sets available within services of browsing and searching in the INSPIRE geoportals (data do not yet have to be compliant with the secondary legislation (implementation regulations))</div> <div style="width: 33%; background-color: #c8e6c9; padding: 2px;">SD set available within the downloading and editing services (where necessary)</div> </div>

Table 1. cont.

Deadline	Annex I	Annex II	Annex III
21 October 2015		Recently collected, and fundamentally rearranged SD compliant with the secondary legislation, and available via online services	
10 December 2015	All executable spatial data services should be equipped with additional metadata elements, according to Annex V of the Directive 1312/2014		
10 December 2016	All executable spatial data services linked to recently collected, and fundamentally rearranged databases, should be equipped with additional metadata elements, according to Annex VI and (where feasible) to Annex VII of the Directive 1312/2014		
23 November 2017	All SD databases compliant with the secondary legislation, and available via online services		
21 October 2020	All SD databases compliant with the secondary legislation, and available via online services		
21 October 2021	All executable spatial data services should be equipped with additional metadata elements, according to Annex VI and (where feasible) to Annex VII of the Directive 1312/2014		

Source: authors' study based on the data from the Main Geodesic and Cartographic Authority [Główny Urząd Geodezji i Kartografii]

- 1) spatial data and metadata<sup>1</sup> of the infrastructure for spatial information,
- 2) spatial data services,
- 3) interoperability of spatial data sets and spatial data services,
- 4) sharing of spatial data,
- 5) cooperation and coordination in the field of infrastructure for spatial information,

is the ISI Act [Ustawa o IIP, Dz. U. Nr 76, poz. 489 z późn. zm]. In addition to the rules listed above, the aforementioned Act determines the appropriate authorities for the above range of responsibilities. It defines 'administrative authorities' and 'lead authorities.' The administrative authority is understood as: government authority or body, or unit of local self-government; another entity, when it is established by law or authorized under agreements to perform public tasks related to the environment.

The concept of 'lead authority' is extremely important, because it determines which unit or agency of public authorities is responsible for preparing the data for specific spatial data themes in accordance with the secondary legislation implementing the ISI Act and the INSPIRE directive [Białousz, Bielecka 2011].

The ISI Act lists 12 bodies, being lead authorities in 34 themes of spatial data.

In accordance with the ISI Act, the lead authority in the 'land use' spatial data theme is the Minister responsible for construction, local planning, zoning, land use and housing.

In addition to the above mentioned 'lead authorities', the ISI Act also mentions the 'third parties,' that is to say, individuals, legal persons or entities without legal personality, other than administrative authorities or their agencies.

The Act stipulates that the infrastructure for spatial information includes spatial data sets, which:

- pertain to Polish territory, or are associated with it,
- occur in electronic format,
- are maintained by:
  - a) the authority (government body/agency) or on its behalf – and which are created, updated and made available according to its public tasks and responsibilities; OR
  - b) a third party, certified to be included in the infrastructure;
- refer to at least one of the data themes listed in the Annex to this Act [Ustawa o IIP, Dz. U. Nr 76, poz. 489 z późn. zm].

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<sup>1</sup> Metadata are defined descriptively, as data about data (or information about information). Therefore, these are the 'data' with the prefix 'meta', which comes from the Greek and means: among, between, after, at the back; or change, while in science it is used in the sense of: above, beyond, of something in a different context. In computer systems of document management, metadata are the descriptions of (imprints within) the documents, containing information describing the given document. Whereas, in the case of databases, metadata are definitions of: tables, views, keys, etc. [Litwin, Rossa 2010].

The Act stipulates that wherever a large number of identical spatial data is in possession of or is stored on behalf of various administrations, the provisions of the Act shall apply only to the reference version, from which the various copies are derived.

Each lead authority specified above is assigned spatial data theme or themes, indicated and defined in the Annex to the ISI Act. The annex is divided into 34 themes of spatial data, into three thematic groups. The first (I) thematic group includes 9 spatial data themes, the second (II) consists of 4 themes and the third (III), of 21 data themes – see Table 2.

**Table 2.** Spatial data themes

First (I) thematic group		Second (II) thematic group		Third (III) thematic group	
1	Coordinate reference systems	1	Elevation	1	Statistical units
2	Geographical grid systems	2	Land cover	2	Buildings
3	Geographical names	3	Orthoimagery	3	Soil
4	Administrative units	4	Geology	4	<b>Land use</b>
5	Addresses			5	Human health and safety
6	Cadastral parcels			6	Utility and governmental services
7	Transport networks			7	Environmental monitoring facilities
8	Hydrography			8	Production and industrial facilities
9	Protected sites			9	Agricultural and aquaculture facilities
10	Population distribution — demography				
11	Area management/ restriction/ regulation zones and reporting units				
12	Natural risk zones				
13	Atmospheric conditions				
14	Meteorological geographical features				
15	Oceanographic geographical features				
16	Sea regions				
17	Bio-geographical regions				
18	Habitats and biotopes				
19	Species distribution				
20	Energy resources				
21	Mineral resources <sup>2</sup>				

Source: author's study based on the ISI Act

<sup>2</sup> Appendix to the ISI Act.

Spatial data theme 'land use,' which is the subject of our analysis in the present article, was included in the third (III) thematic group, as the fourth theme. 'Land use,' according to the literature, is the current state of land development, resulting from the conduct of spatial, or land, management [Śleszyński 2013].

According to the definition provided in the annex to the ISI Act, 'land use' is understood as land development, in its current and future functional dimension, or as socio-economic purpose of the land, including residential, industrial, commercial, agricultural, forestry, and recreational functions, resulting the planning (zoning) documents.<sup>3</sup>

In interpreting the above definition, we should pay particular attention to the plural used in relation to the 'planning documents.' In Poland, there are three levels of planning (local/municipal, provincial, and national) accompanied by three layers of planning documents: the local zoning plan, the municipal study of conditions and directions of spatial management, and the spatial development plan of the province. However, it should be noted, that in this definition of 'land use' spatial data theme, reference is made to the designation (the functional dimension) of land. It should be noted that the use of the land is defined only by one of the three planning documents listed above, that is, the local zoning plan. The study of conditions and directions of spatial management determines the spatial policy of the community, rather than the use of the land. The spatial development plan is the document most general of all three mentioned above, which – just like the aforementioned study – does not determine the land use in the area. Considering the above, the question arises, what are the planning documents pertinent to the spatial data sets in the discussed theme?

In addition to the ISI Act, the laws that apply in the field of Spatial Information Infrastructure, include, among others:

- Commission Regulation (EU) No 1253/2013 of 21 October 2013 Amending the Regulation (EU) No 1089/2010 implementing the Directive 2007/2 / EC for the interoperability of spatial data sets and services [Rozporządzenie... 2013];
- Commission Regulation (EU) No 102/2011 of 4 February 2011 *Amending the Regulation (EU) No 1089/2010 implementing the Directive 2007/2 / EC for the interoperability of spatial data sets and services* [Rozporządzenie... 2011];
- Commission Regulation (EU) No 1088/2010 of 23 November 2010 *Amending the Regulation (EC) No 976/2009 as regards availability of data download services and data transformation services* [Rozporządzenie... Nr 1088/2010];
- Commission Regulation (EU) No 1089/2010 of 23 November 2010 *On the implementation of the Directive 2007/2 / EC of the European Parliament and of the Council as regards interoperability of spatial data sets and services* [Rozporządzenie... Nr 1089/2010];
- Regulation by the Minister of Internal Affairs and Administration dated 20 October 2010 *On keeping the records of spatial data sets and services covered by the Infrastructures for Spatial Information* [Dz. U. Nr 201, poz. 1333];

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<sup>3</sup> *Ibidem.*

- Regulation by the Minister of Internal Affairs and Administration of 13 September 2010 *On the Council for Spatial Data Infrastructure* [Dz. U. Nr 183, poz. 1233];
- Commission Regulation (EC) No 976/2009 of 19 October 2009 *On the implementation of the Directive 2007/2 / EC of the European Parliament and the Council as regards network services* [Rozporządzenie... 2009];
- Commission Decision 2009/442 / EC of 5 June 2009 *On the implementation of the Directive 2007/2 / EC of the European Parliament and of the Council as regards monitoring and reporting* [Decyzja... 2009];
- Commission Regulation (EC) No 1205/2008 of 3 December 2008 *On the implementation of the Directive 2007/2 / EC of the European Parliament and the Council as regards metadata* [Rozporządzenie... 2008].

The above regulations may give rise to problems of interpretation and application. Therefore, a number of studies on INSPIRE may be very helpful for the administration bodies, lead authorities and third parties. For instance, on the Head Office of Geodesy and Cartography website<sup>4</sup>, one can get acquainted with such studies and reports, divided according to the extent of information they cover:

- quality of data in INSPIRE,
- publication of metadata for external entities,
- a conceptual model for developing specification for interoperability of spatial data infrastructures,
- results of monitoring the implementation of INSPIRE,
- data specification,
- web services within INSPIRE,
- guidance on the monitoring and reporting under the INSPIRE Directive,
- identification of spatial data sets and services for INSPIRE thematic groups I and II,
- Polish national metadata profile in the field of geo-information,
- the status of the implementation of INSPIRE in Poland,
- definitions and scopes of data themes within INSPIRE.

Additional support for the above listed bodies and persons is provided in the form of textbooks – materials for experts in the course of training (on basic and expert levels), developed as a part of the project titled ‘Educational support the implementation of the INSPIRE Directive in local government administration, in the context of raising the quality of service and operational efficiency.’<sup>5</sup>

Another interesting project is Geo-information in practice - INSPIRE ACADEMY, which facilitated the publication titled ‘Get inspired! Geo-information in local municipal self-government’ (UNEP GRID Warszawa, Warsaw 2011). The subject of the project

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<sup>4</sup> <http://www.gugik.gov.pl/bip/inspire/opracowania> (accessed: 10.12.2016).

<sup>5</sup> <http://www.gugik.gov.pl/bip/inspire/materialy-szkoleniowe> (accessed: 10.12.2016).



in question, as well as the publication, coincides with the objectives pursued by the Chief State Surveyor, related to the implementation of the INSPIRE Directive in Poland [Andrzejewska et al. 2011].

Lead authorities, on their own, also issue statements, commission expert studies and publish reports, and they conduct research and analyses for their own needs related to the execution of their assigned tasks and responsibilities associated with INSPIRE. For example, the Minister responsible for the spatial data theme of 'land use' has so far commissioned, among others:

- developing a handbook dedicated to planners and employees of local governments titled 'Infrastructure for Spatial Information,' in e-book format [Litwin, Borsa 2013];
- conducting the analysis of the harmonization of spatial data contained in the study 'Developing a strategy for the harmonization of the subject land use planning (land use) on a pilot project in municipalities, in the harmonization of the collection, metadata and spatial data services' (UNEP GRID Warsaw);
- drafting the document on 'CATALOGUE OF LAND USE ITEMS in the field of spatial data, land use theme, in reference to Chapter III of the Annex to the Law of 4 March 2010 on the Infrastructure of Spatial Information' [Jaroszewicz et al. 2013];
- conducting the analysis of planning documents in terms of their inclusion in the resources of a national infrastructure for spatial information (UNEP GRID Warsaw);
- drawing up a report on the analysis of applicable law in the area of technical requirements for electronic documents, taking into account the Infrastructure for Spatial Information created in Poland [Litwin 2012].<sup>6</sup>

### 3. Legally appointed tasks and responsibilities of the lead authority for the 'land use' theme of spatial data

Tasks and responsibilities of lead authorities bodies have been defined explicitly in the ISI Act. These tasks and responsibilities can be described as follows:

- creation and implementation of training programmes covering in particular issues pertaining to the creation, updating and sharing of metadata and agreeing training plans;
- making available, to the authorities and third parties included in the Infrastructure for Spatial Information, any information necessary to perform tasks of implementing technical solutions to ensure interoperability of spatial data collections and services;
- approval (or taking the initiative) on the inclusion of the spatial data sets and services belonging to third parties in the Infrastructure for Spatial Information;
- creating, maintaining and developing the Infrastructure for Spatial Information in cooperation with other authorities and third parties;

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<sup>6</sup> Resources of the Minister responsible for construction, spatial planning, land use and management, and housing.

- creating and maintaining the common elements of the Infrastructure for Spatial Information (in coordination with other bodies, by agreement);
- monitoring and reporting on the development works pertaining to the creation and operation of the Infrastructure for Spatial Information.

Originally, that is, from the date of entry into force of the ISI Act (7 June 2010), until the date of entry into force of the Act of 19 November 2015 Amending the Law on Public Government Administration and other acts, in connection thereto the Regulation was issued by the President of the Council of Ministers of 9 December 2015 Amending the regulation on the detailed scope of activities of the Minister of Infrastructure and Construction, the Minister responsible for matters of planning, zoning and land use (presently, the Minister for Infrastructure and Construction, and earlier the Minister of Infrastructure; Minister of Transport, Construction and Maritime Economy; and the Minister of Infrastructure and Development) only administered the spatial data theme of 'land use.' Currently, according of the above Law and Regulation, the said Minister also supervises the Chief State Surveyor, who, according to the ISI Act, carried out the tasks specified in that Act on behalf of the Minister responsible for public administration.

Law amending the Law on Government Administration and other Acts reworded Article 9a of the Law on Government Administration, as well as changing the name of the pertinent department of government (formerly the department was called: construction and local planning; land use planning and housing). The current department of construction, land planning, land use and housing also includes matters related to geodesy and cartography.

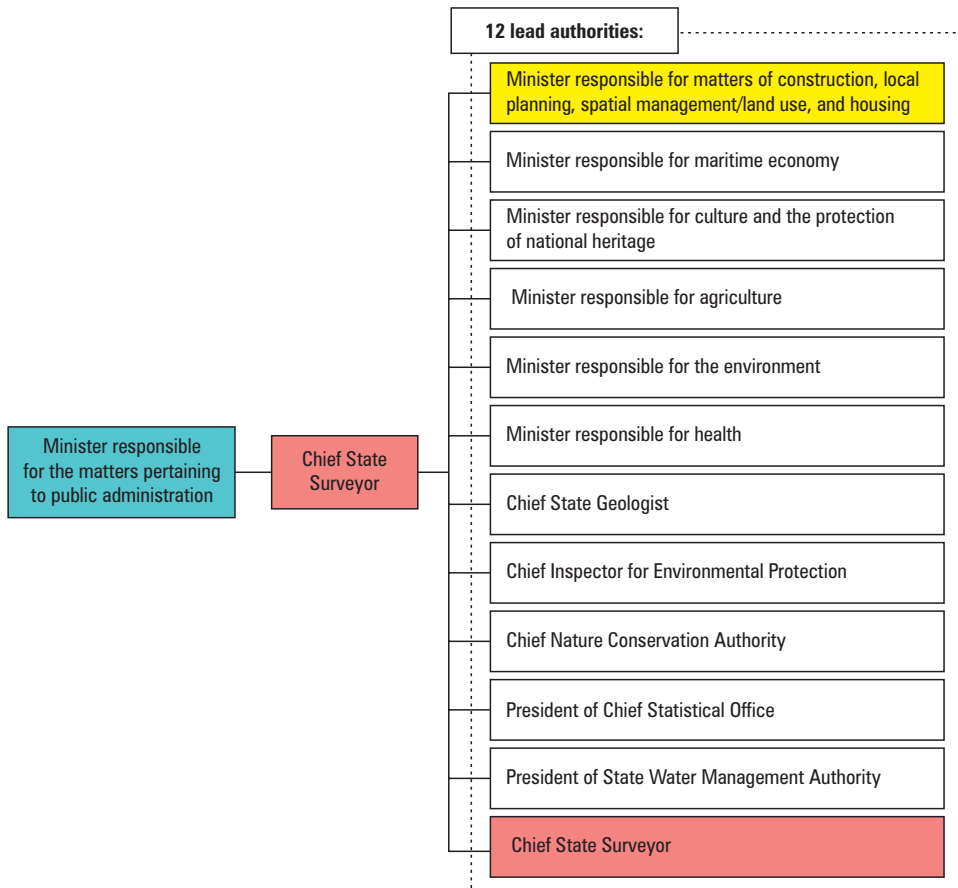
Prior to the abovementioned changes, it was the Minister in charge of Public Administration who implemented (with the aid of the Chief State Surveyor), the coordination tasks, relating to:

- the coordination of creating, maintaining and developing infrastructure,
- the cooperation with the European Commission, and transfer of information and reports thereto, concerning the establishment and operation of infrastructure,
- the monitoring of the course of works on the creation and operation of infrastructure and its development,
- the organization of projects and activities supporting the development of infrastructure,
- the cooperation with the governors and local government units in their actions relating to the creation and operation of infrastructure.

In addition to the above tasks, the Chief State Surveyor also performed the task of lead authority, consisting in organizing, coordinating and monitoring the activities related to the creation, maintenance and development of the Infrastructure for Spatial Information in the scope of the assigned spatial data themes, ensuring the compatibility of these activities, including the technical solutions introduced, with the regulations for Spatial Information Infrastructure.

In addition, the Chief State Surveyor:

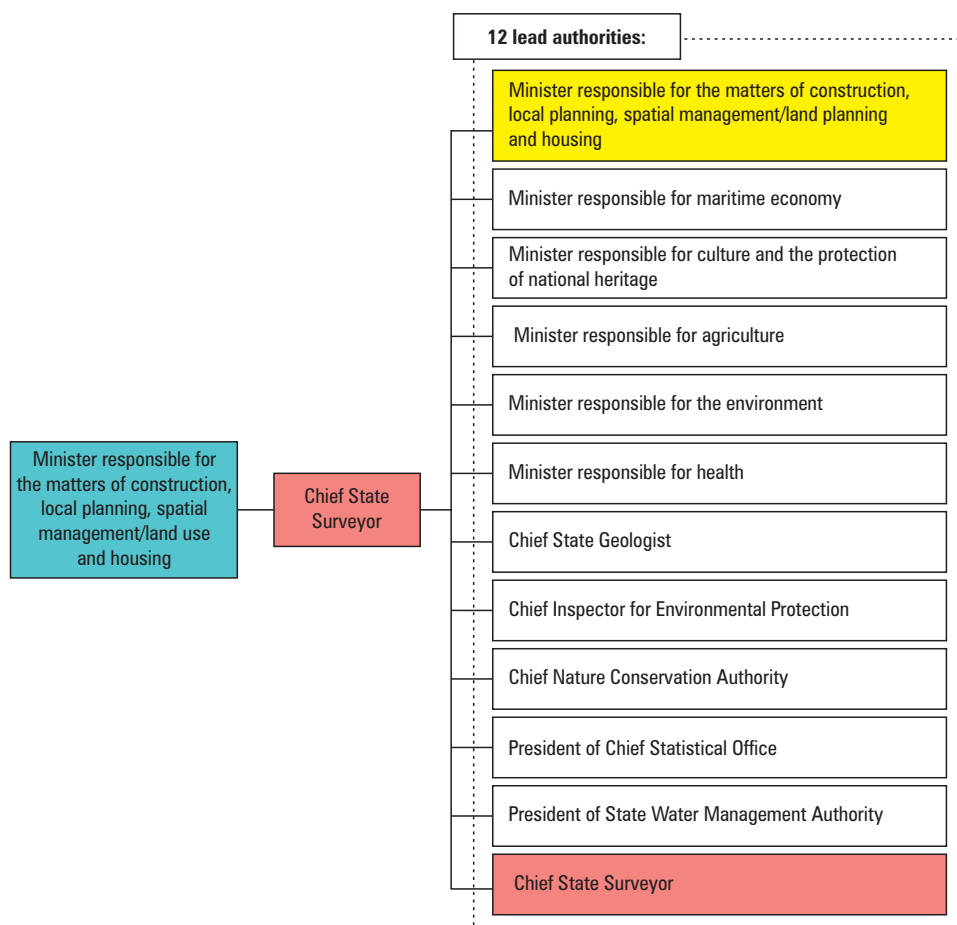
- was responsible for the contacts with the European Commission in matters related to the ISI Act; and for operating the Contact Point in charge of providing information on the implementation of the INSPIRE Directive in Poland, and for Polish reports to the European Commission (including documents for monitoring and reporting INSPIRE),
- created and maintained the national Geoportal, as the central point of access to the National Spatial Data Infrastructure,
- conducted publicly available records of spatial data sets and services, covered by the Infrastructure for Spatial Information, and equipped them with uniform identification tags.



Source: author's study based on the ISI Act

**Fig. 1.** Co-ordinating body and lead authorities in ISI (before the change in legislation)

Figure 1 shows the coordinating body for the implementation of the INSPIRE Directive in Poland, before the entry into force of the Law amending the Law on Government Administration and other acts – this coordinating function was performed by the Chief State Surveyor (shown in red), supervised by the Minister responsible for Public Administration; as well as 12 lead authorities (the yellow colour indicates the Minister responsible, prior to the entry into force of the aforementioned laws and regulations, for one spatial data theme of ‘land use’).



Source: author's study based on the ISI Act and the Law amending the Law on Public Government Administration and other acts

Fig. 2. Co-ordinating body and lead authorities in ISI (after the change in legislation)

Considering the above changes made by the force of the aforementioned Law and Regulation, it should be noted that the Minister of Infrastructure and Construction, who heads the government administration divisions of: *construction, local planning*

*spatial management, land use and housing*; as well as *communication*; and *transport*, is now responsible for all the INSPIRE theme in Poland. Therefore, the scope of the Minister's competence has been extended to include the competence of the minister responsible for public administration, performing tasks with the help of the Chief State Surveyor [Ustawa... 2015].

Figure 2 shows the coordinating body for the implementation of the INSPIRE Directive in Poland, after the entry into force of the Law amending the Law on Government Administration and other acts – this coordinating function was performed by the Chief State Surveyor (shown in red), currently supervised by the minister responsible for construction, local planning spatial management, land use and housing; as well as 12 lead authorities (the colour blue represents the Minister, who after the entry into force of the above Law and regulation, not only has the power over one spatial data theme, i.e. 'land use', but also the supervision of the Chief State Surveyor and responsibility for the entire Infrastructure for Spatial Information in Poland).

#### 4. Participation of other bodies, units and agencies in the implementation of the tasks of lead authority within the spatial data 'land use' theme

Lead authorities in the given theme (or themes) of spatial data may cooperate with other administrative bodies, institutions or entities.

And so, the minister responsible for matters of construction, local planning, spatial management, land use and housing, in the performance of duties (duties) in the spatial data theme of 'land use,' has undertaken co-operation with such bodies and institutions as the Institute of Spatial Planning and Housing in Warsaw, Institute of Urban Development in Kraków, Polish Academy of Sciences, UNEP / GRID Centre in Warsaw, Society of Polish Town Planners, Institute of Spatial and Cadastral Systems SA, Warsaw University of Technology, as well as independent experts. This co-operation is mainly based on the above entities conducting various types of studies, reports, analyses, and research projects for the purposes of the Infrastructure for Spatial Information, in the spatial data theme of 'land use.' It also involves participation of these organisations (as members) in the team set up with particular purpose to support the aforementioned Minister in the implementation of statutory obligations resulting from the INSPIRE Directive. The Team for the spatial data 'land use' theme was established by the Regulation No. 8 of the Minister of Transport, Construction and Maritime Economy on 12 April 2013 (and amended by Regulation No. 35 of 5 November 2013),<sup>7</sup> and it was subdivided into three thematic groups:

- The first group dealt with issues of local planning and zoning,
- The second group dealt with issues of infrastructure for spatial information,
- The third group dealt with issues of metadata.

<sup>7</sup> <https://e-dziennik.transport.gov.pl/index.php>

Within the framework of the above three working groups, work was conducted mainly related to the analysis of changes in the legislation on spatial planning and development, in order to align them with the provisions of the spatial information infrastructure (in particular, the work related to the development of standards for planning and digitization of the planning documents prepared at the local / municipal level), as well as the technical work related to, among others, the metadata profiles.

After the merger on 27 November 2013 of two ministries, i.e. The Ministry of Transport, Construction and Maritime Economy and the Ministry of Regional Development [Rozporządzenie... 2013], the abovementioned Team ceased their work. The official information of the Ministry indicates that the Team, after the aforementioned merger of the ministries, had no legal grounds to continue its operations, as on 27 November 2013 the Ministry of Transport, Construction and Maritime Economy was effectively abolished, while the Ministry of Regional Development was transformed into the Ministry of Infrastructure Development. In the new Ministry, works were carried out on another Regulation, which involved the reactivation of the work of the Team, however, staffed with new and different team members. Regulation No. 20 of the Minister of Infrastructure and Development of 2 July 2015 On the appointment of the Team for spatial data 'land use' theme again re-established the aforementioned Team, as a subsidiary body of the minister responsible for construction, local planning, land use, zoning, and housing.

According to § 2.1 of the Regulation cited above, the tasks of the Team were to include the analysis of legal, technical, organizational and financial considerations, and making the recommendations to the lead authority as pertains to the spatial data 'land use' theme, as well as policies and solutions regarding:

- 1) legislative changes in terms of regulations on infrastructure for spatial information;
- 2) the standard model<sup>8</sup> of spatial data sets for spatial planning;
- 3) field-specific metadata profile;
- 4) reference resources for planning documents, their sources and conditions for their sharing;
- 5) The national classification of land use and development of mapping rules for the HILUCS classification<sup>9</sup>;
- 6) The minimum requirements for base maps (map backgrounds) for the purpose of spatial planning, including a list of eligible geodetic and mapping materials;
- 7) The standardization and visualization of spatial data sets for planning purposes;
- 8) The integration of spatial data in spatial planning;

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<sup>8</sup> Data model is an ordered, digital description facilitating the representation of selected features of reality. General data models (raster, or vector based) used in spatial information systems, like data recording models in databases (relational, object-oriented, and relational-object oriented) are largely independent of the IT tools used – other than the format of the records [Olszewski, Gotlib 2013].

<sup>9</sup> Hierarchical INSPIRE Land Use Classification System.

- 9) Other issues related to the creation, development and maintenance of the Infrastructure for Spatial Information in the field of land use and land planning, including those relating to recommending draft plans, and the participation of the Minister, as the lead authority, in the creation and operation of the said infrastructure for the following years [Zarządzenie... 2015].

In relation to the Team's task referred to in point (6) above, we should note that the Team should not be concerned with 'the minimum requirements for base maps (map backgrounds)', as specified in the Regulations which re-activated it; but instead, it should be concerned with a set of reference data for spatial planning, and with developing the standard cartographic visualization, which should provide the base map for the presentation of data in the 'land use' them.

It must be emphasized that the competent authorities in the spatial data 'land use' theme should bear in mind that is crucial in the planning process to integrate different kinds of data, and carry out the efficient and multi-criteria analysis of that data [Białousz 2013].

In relation to the tasks set out in the abovementioned Regulation No. 20, past tense was used ("were to include"), because despite the fact that the above Team was reactivated, it did not perform any work (it remained inactive), and considering the creation of a new ministry, i.e. The Ministry of Infrastructure and Construction, it must be presumed from the date of the creation thereof, the Team had no legal basis for the operation (as was the case in the situation of merging the Ministry of Transport, Construction and Maritime Economy with the Ministry of Regional Development). When analysing the period of the actual operation of the Team (i.e. from the entry into force of the Regulation of 12 April 2013, until the merger of the aforementioned ministries), it should be noted that the Team provided very substantial support in the performance of tasks and responsibilities of the minister at the time. The findings and arguments, developed during the meetings of the Team, were the basis for initiating the work on adapting the legislation on planning and spatial development to the regulations in the field of infrastructure for spatial information.

The question then arises whether, in connection with the legal changes, consisting in adding the ministerial responsibilities for geodesy and cartography to the areas of 'construction, spatial planning, land use, and housing,' as well as extending the supervision over the Chief State Surveyor by the minister responsible for construction, spatial planning, land use, and housing, the Team will be appointed for the third time, as its advisory body, or, whether the issues within the scope of the Team will be taken over, for instance, by the Chief Commission for Urban Planning and Architecture.

It is worth noting the organizational chart, included in point 1.2 of the 'Programme for the Development of Infrastructure for Spatial Information at the Ministry of Infrastructure and Development for the years 2014–2015' [Program Budowy... 2014], prepared by the said Ministry, according to which chart, the then Minister of Infrastructure and Development, as the competent authority in the spatial data 'land use' theme, should conduct on-going co-operation not only with the mayors, municipal, town and village authorities, with the Council of Spatial Information Infrastructure, or

with the Point of Contact in this theme, but also with the Team for spatial data 'land use' theme. Practice shows, however, that the scheme unfortunately did not reflect reality, as the said Team (after the formation of the aforementioned Ministry) did not operate.

The provisions of the ISI Act do not exclude cooperation of lead authorities with external actors and experts who are not administrative bodies, for instance by commissioning research and other studies and expert opinions.

At this point, it is worth mentioning that according to Article 21 paragraph 1 of the ISI Act, the Council of Spatial Data Infrastructure is affiliated with the minister responsible for public administration. The Council is to issue opinions on draft legislation, standards, organizational, scientific and educational measures, plans and reports on the Spatial Information Infrastructure, as well as take initiative on improving the Spatial Data Infrastructure.

The composition of the above Council is explicitly defined in the ISI Act. The minister responsible for construction, spatial planning, land use, and housing, before the changes in the law described above, worked with the Council of Spatial Data Infrastructure as the lead authority in the spatial data 'land use' theme, and the member of that Council. The said Minister, as a member of the Council, proposed to the Council of Infrastructure for Spatial Information that special sections for spatial data 'land use' theme be created on the [www.radaip.gov.pl](http://www.radaip.gov.pl) and [www.gugik.gov.pl](http://www.gugik.gov.pl) websites.

Now that the above-described changes in the law have been introduced, the question arises whether the Council of Spatial Information Infrastructure, appointed by the minister responsible for public administration, which, in accordance with Article 19 of the ISI Act performs tasks (with the assistance of the Chief State Surveyor) involving the creation, maintenance and development of Spatial Data Infrastructure and which keeps the European Commission informed and provides it with reports concerning the creation and operation of this infrastructure will continue to function, but now affiliated with a different Minister? Or, instead, should the provisions of the ISI Act be amended and adapted to the changes introduced by the Law Amending the Law on Government Administration and other laws, as well as the Regulation Amending the Regulation on the detailed scope of activities of the Minister of Infrastructure and Construction?

##### 5. Manner of implementation of tasks by the Minister competent in the 'land use' theme of spatial data

The minister competent in the field of construction, spatial planning, land use, as the lead authority in the spatial data 'land use' theme, after the entry into force of the ISI Act, commissioned a series of studies, expert opinions and reports, and ordered a number of analyses and studies on the implementation of the INSPIRE Directive in the scope of the said theme. Some of these were designed to identify areas, in which legislation changes should be introduced. Notwithstanding the above, the Law on Spatial Planning and Development still has not been changed or adapted to the INSPIRE Directive, the ISI Act, or the pertinent regulations.



It should be noted that already in the Draft for the Spatial Data Infrastructure (SDI) Development Programme, stage covering the years 2012–2013, in the section relating to legal foundations, it was indicated that ‘It seems proper to consider the need to amend the Act of 27 March 2003 on spatial planning and development, aimed at addressing the conditions resulting from the Law on the Infrastructure for Spatial Information’ [Ustawa... 2003].

The main legal sphere, which should be regulated in terms of the provisions for spatial planning and development, should be solving problems in the field of digitization of planning documents, i.e. the studies of conditions and directions of spatial development at municipalities, and local development (zoning) plans. It can be argued that the current legal status does not regulate this issue at all. The consequence of this legal status can be seen in discrepancies between the findings, that is, among other things, the incompatibility between the local development plans, and the records of land and buildings [Izdabski, Malinowski 2014].

The present legal problem can be solved by development the so-called planning standards that would ensure the quality of planning data, and the harmonization thereof with reference data sets – for local development plans, with records of land and buildings (EGiB), Geodetic Records of Public Utilities (GESUT), etc.; for municipal studies of conditions and directions of spatial development, with BDOT10k, etc. The planning standards would also define a standard data model (the conceptual model, the UML<sup>10</sup> and GML<sup>11</sup> application models, dictionaries, HILUCS mapping rules to the national code list of land use, which should also be developed, and standards for data visualization, that is, the development of standard cartographic presentations and methods of making them available through geo-portals).

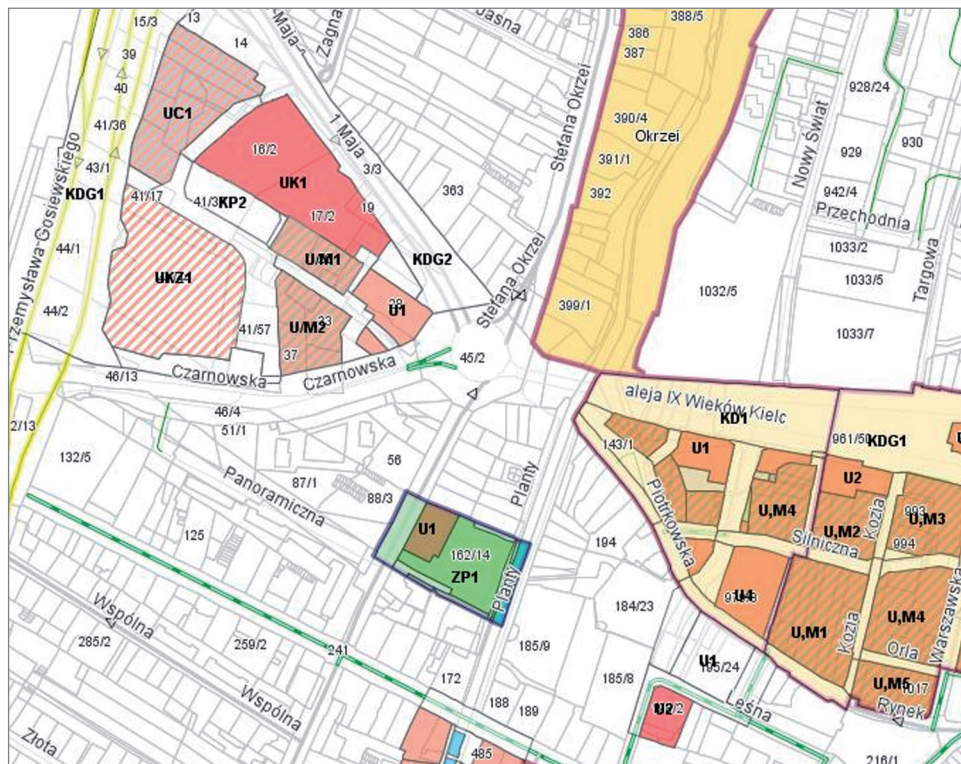
In reference to sharing spatial data sets via the geo-portals mentioned above, which include local zoning plans, we can point, for example, to the Geoportal Kielce, which was designed based on the INSPIRE concept (Figure 3). This geo-portal provides, among other things, access to layers of local development plans, including plans in course of preparation, as well as the layer of urban planning studies (municipal studies of conditions and directions of spatial development).

It is worth noting at this point that the current local plans are drawn up based on the Regulation of the Minister of Infrastructure of 26 August 2003 On the required scope of the projected local zoning plan [Rozporządzenie... 2003]. An annex to the above Regulation sets out the basic colour, visual and letter symbols for the designation of areas, to be used while drawing the local plan. Therefore, the competent authorities responsible for drawing up local plans, introduce additional markings of the designation (purpose or function) of the areas, which are not contained in the above Annex, and which are present in the locality for which the plan is drawn up (Table 3).

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<sup>10</sup> Unified Modeling Language




<sup>11</sup> Geography Markup Language



Source: Geoportal Kielce, [www.gis.kielce.eu](http://www.gis.kielce.eu)

Fig. 3. Local land use (zoning) plans for the city of Kielce

Table 3. Basic colour and visual symbols used while drafting spatial development (land use) plans in Poland

No.	Designation	Letter symbols	Colour of the designation in the drawing/plan/design	Remarks
1	2	3	4	5
<b>1. Residential areas</b>				
1.1	Residential areas with single-family houses	MN		light brown
1.2	Residential areas with multi-family houses and high rise	MW		dark brown
<b>2. Business and commercial (service) use areas</b>				
2.1	Retail and commercial use areas	U		red












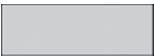


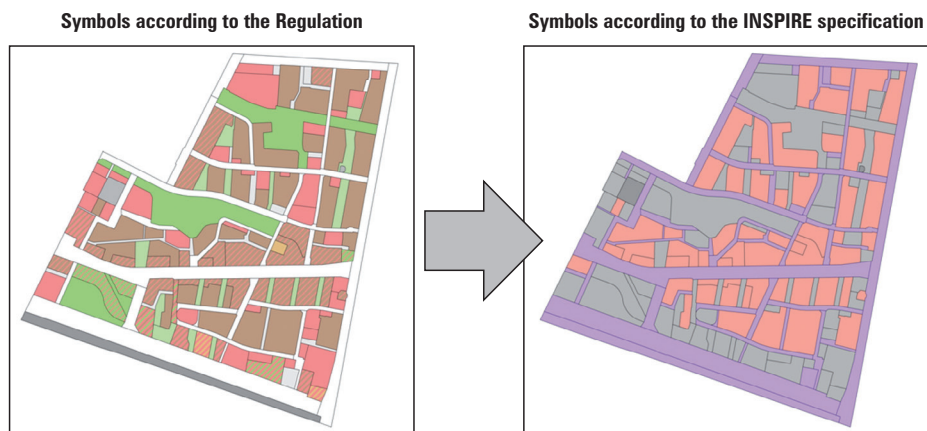
2.2	Sports and recreational areas	US		green-red hatching
2.3	Areas with retail and commercial venues with sales area over 2000 m <sup>2</sup>	UC		red-dark grey hatching
<b>3. Agriculture areas</b>				
3.1	Agricultural and livestock land	R		yellow
3.2	Areas with production services for agriculture, and livestock farms, horticulture, forest and fisheries	RU		yellow-red hatching
3.3	Built-up areas in agriculture, horticulture, and livestock farms	RM		yellow-light brown hatching
<b>4. Industrial areas (technical and production)</b>				
4.1	Areas with manufacturing, warehouse and utility buildings	P		purple
4.2	Mining and extraction areas	PG		
<b>5. Greenery and water areas</b>				
5.1	Green spaces under legal environmental protection	ZN		dark green
5.2	Unimproved forest land	ZL		
5.3	Regulated green spaces such as parks, gardens, greenery accompanying building developments, lawns, arboretums, alpine gardens, hillforts, burial mounds, historic fortifications and earthworks	ZP		green
5.4	Allotment gardens	ZD		
5.5	Cemeteries	ZC		
5.6	Flood risk areas	ZZ		light green hatching against the background in the colour applicable to the given designation
5.7	Surface water areas / seas and oceans	WM		light blue
5.8	Inland surface water areas (rivers, lakes, ponds, streams, canals)	WS		
<b>6. Transportation areas</b>				
6.1	Public roads	KD		white

Table 3. cont.

No.	Designation	Letter symbols	Colour of the designation in the drawing/plan/design	Remarks
1	2	3	4	5
6.2	Internal roads	KDW		light grey
6.3	Water transportation, water routes	KW		dark blue
<b>7. Areas of technical infrastructure and utilities</b>				
7.1	Electricity	E		dark grey
7.2	Gasworks	G		
7.3	Waterworks	W		
7.4	Sewage	K		
7.5	Telecommunications	T		
7.6	Waste management	O		
7.7	Power plants	C		

Source: Annex to the Regulation by the Minister of Infrastructure of 26 August 2003 on the required scope of the projected local zoning plan [Rozporządzenie... 2003]



Source: author's based on the decision no. LVII/1710/2009 by the Warsaw Metropolitan Council of 18 June 2009 revoking of the local zoning plan for Rakowiec area [Uchwała... 2009]

**Fig. 4.** Areas in the visual Annex to the local zoning plan in two versions according to the Regulation on the required scope of the projected local zoning plan, and complying with the symbols according to the INSPIRE specification

Figure 4 presents a fragment of the zoning layer of the sample visual Annex to the local plan in two versions: the symbols complying with the Regulation, and the symbols according to the specifications of INSPIRE. The difference is not just in the visual layer (use of other colour symbols), but – mainly – in the conceptual model. For example, green recreational areas and cemeteries belonging to the category of green areas (according to the Regulation) and presented in green, according to the HILUCS code list belong to the category of municipal services, and in accordance with the specifications of INSPIRE Directive, are presented in grey. In this case, only the economic function is depicted, without any predictive information on other aspects of the functional areas in the draft plan, including landscape aspects.

It is important, not only from the point of view of the INSPIRE Directive, that planning standards are developed for the planning document drawn up at the regional level, i.e. the spatial development plan for a voivodship (province). Repeatedly amended Law on Spatial Planning and Development has been in force since July 2003, but no Regulation governing the scope, symbols, nomenclature and graphical layer of the aforementioned plan has been developed by the minister to date. Referring to the standards of planning, which were mentioned above, it should be remembered that the previous minister, i.e. the minister responsible for construction, spatial planning, land use, and housing (Minister of Transport, Construction and Maritime Economy), together with the Team for the spatial data 'land use' theme, started working on these standards. The idea of their endeavours was that the planning standards should be introduced by the Regulation of the Minister and used widely, so that every planning document, drawn up at the local or municipal level was developed in accordance with those standards. For this purpose, a study was prepared, titled the 'Catalogue of Land Use Items in the field of spatial data, land use theme, in reference to Chapter III of the Annex to the Law of 4 March 2010 on the Infrastructure of Spatial Information' [Jaroszewicz et al. 2013] developed in 2013 by the Department of Geodesy and Cartography at the Warsaw University of Technology, as commissioned by the Ministry of Transport, Construction and Maritime Economy. It included the discussion of thematic items of spatial data, associated with:

- the visual annex to the resolution of the municipal council on the adoption of the local development plan (Polish abbreviation: MPZP);
- the visual annex to the resolution of the municipal council, containing the drawing of directions for spatial development of the city or municipality – Study of Conditions and Directions for Municipal Development (Polish abbreviation: SUIKZP) [Jaroszewicz et al. 2013].

The developed 'Catalogue of land use items...' can still serve as a basis for standardization, leading to the established structure of database for the storage and sharing of information on the spatial planning and development. Such a solution would allow future analysis of the changes in the above field; would make it possible to evaluate the effectiveness of the regulations related to spatial planning and spatial development, and

it would facilitate the development of new planning documents. The link to reference datasets would improve the quality and reduce the time of preparing draft planning documents' [Jaroszewicz et al. 2013].

The development of such a catalogue of items is one of the basic elements in creating standards for spatial data. The introduction of uniform standards in terms of spatial data structures, data sharing, and data presentation would improve all stages of work on local plans, both for persons developing such plans and for decision-makers. Furthermore, it can contribute to the development of public participation in the planning process. The main assumptions for the concept of this publication were as follows:

- developing extensible and hierarchically organized code lists, that would provide the flexibility of solutions and facilitate the search for information through the ontological approach,
- ensuring harmonization with the reference data, included in the visual Annex to the draft local development plan (e.g. GESUT, EGiB, PRG databases,<sup>12</sup> central records of environmental protection, etc.),
- facilitating the mapping to the INSPIRE data model, while simultaneously taking into account the requirements and experiences of spatial planning in Poland,
- developing a flexible solution, in which it is possible to record both the general and very specific, detailed regulations of the local zoning plan (plans, archives, as well as plans created today); a solution that is relatively easy to update when changing laws, which does not limit the creative planning process.

The developed 'Catalogue of land use items...' was supposed to be the starting point for extensive public consultation, including consulting with local governments and the milieu of spatial planners. The catalogue form, as it is prepared, is understandable also for people who are unfamiliar with the formats of UML applications.

Classes of items, introduced in the 'Catalogue of land use items...' can be mapped to the PLU INSPIRE data model. The developed code lists, specifying the destination of areas, have been created on the basis of a large (more than 300), representative sample of existing, adopted local development plans, from different regions of Poland, with varying characteristics.

Based on the analysis of these plans, as well as applicable laws regulations and existing reference databases, other items were also defined, included in the plans, affecting land use (classes of items, mapping to the Supplementary Regulation class in the PLU INSPIRE model).

This paper is therefore an attempt to standardize the nomenclature of the items included in Polish local land use plans with their simultaneous harmonization of legal definitions and reference databases. At the same time, in our study we reject the concept of basing code lists, specifying the use of the land, directly on HILUCS. The creators of the 'Catalogue of land use items...' took the stand standards need to be

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<sup>12</sup> Polish abbreviation of: Państwowy Rejestr Granic (State Inventory of Borders)

created that would be tailored to the local spatial development plans, to the legal acts and regulations developed and applied in Poland; and based on that, Polish lists of land designations (or regional lists) should be developed for mapping, HICULS being their highest level of the hierarchy. At present, the prevailing opinion is that the highest level of the hierarchy of the state-wide nomenclature should be a non-extension, finite list, compatible with HILUCS, while the extension should be possible only on the lowest level of a three-level hierarchy (this is reflected, for instance, in the terms of reference for the drafting of standards for planning databases, included in the website of the Ministry of Infrastructure and Construction).

The prepared 'Catalogue of land use items...' lists a number of demands for further actions, including:

- to carry out extensive inter-departmental consultations in order to standardize the proposed code lists associated with the types of items belonging to the so-called external themes (reference projects included in the local development plan), in particular those relating to the protection of cultural heritage and monuments, nature conservation, environmental protection, water management, geology, mining, agriculture, forestry, technical infrastructure and communication etc.,
- to develop agreed, harmonized code list: zoning (area designation) codes and HILUCS codes,
- to define acceptable relationship between the attribute values: the zoning (area designation) and the study of conditions (SUIKZP), as selected from the code list 'List land use study'; and attribute values: basic purpose (MPZP, local development plan), selectable from the code list: 'List land use plan',
- in view of the changes in the geodetic and cartographic law, to verify and to develop acceptable cartographic materials, which will provide map base for the development of planning documents,
- to develop UML and GML application schemes,
- to carry out pilot studies in selected municipalities,
- to develop a methodology for the transformation of existing spatial data sets and new data sets in order to adapt them to the relevant standards,
- to develop a training program in numerical standards for planning studies, and to conduct the training itself.

One of the recommendations contained in the 'Catalogue of land use items...' has been defined as: the reconciliation and standardization of letter symbols used for areas covered by local development plans (MPZP) – Table 4.

It is worth noting that in the 'Catalogue of land use items...' the proposed code lists have a hierarchical structure, and is acceptable to extend the lists on their respective levels. For residential built-up areas, included in Table 4, the hierarchy is as illustrated in Figure 5.

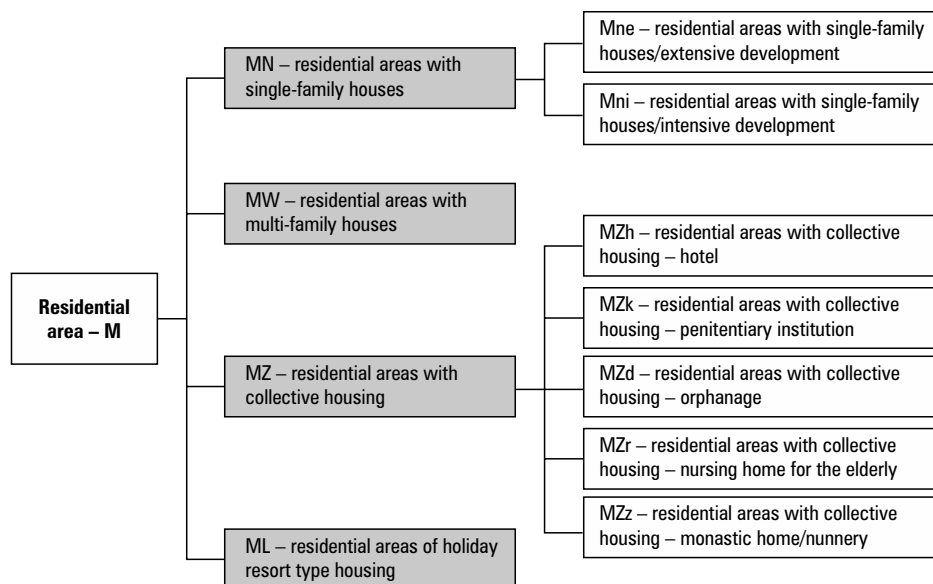
Table 4. Sample descriptions of residential and services areas in local development plans

Symbol according to the Regulation by the Minister of Infrastructure	Symbol according to the BGWM PLANY report	Description resulting from the analysed planning documents (analysed local development plans presented in Annex 3 'Catalogue of land use items...')	Proposed symbols (full list in included in Table no. 49 in the 'Catalogue of land use items...')
MN – residential areas with single-family houses	MN – residential areas with single-family houses	M – built-up residential areas MN – residential areas with single-family houses of low intensity MJZ – residential areas with single-family houses within the area of organised business activity SMU – inner-city built-up areas of mixed services and residential functions MWN – residential built-up areas MNL – residential areas in forest land	MN – residential areas with single-family houses Mne – residential areas with single-family houses /extensive development Mni – residential areas with single-family houses /intensive development
MW – residential areas with multi-family houses	MW – residential areas with multi-family houses	MW – residential areas with multi-family houses MWu – residential areas with multi-family houses with services MW – residential areas with multi-family houses, with possibility of services	MW – residential areas with multi-family houses
Undetermined	MZ – residential areas with collective housing	MW-Z – residential areas with collective housing and hotels MWZ-ZK – residential areas with collective housing – penitentiary institution MWZ-A – residential areas with collective housing – student dormitory	MZ – collective residential area MZh – residential areas with collective housing - hotel MZk – residential areas with collective housing - penitentiary institution MZd – residential areas with collective housing – orphanage MZr – residential areas with collective housing – nursing home for the elderly MZz – residential areas with collective housing – monastic home/nunnery
Undetermined	ML – residential areas of holiday resort/leisure	ML – residential areas of individual holiday resort-type housing	ML – residential areas of individual holiday resort-type housing



U – service built-up areas	Undetermined	U – service built-up areas U – multifunctional service built-up areas U – service areas	U – service built-up areas
Undetermined	UA – administrative services areas	UA – administrative services built-up areas UA – administrative services and offices built-up areas Ua – administrative services built-up areas U-A administrative services areas, business premises	UA – administrative services areas
Undetermined	UP – public services areas	UP – built-up areas with public utility services UP – built-up public services areas	UP – public services areas
Undetermined	UO – educational services areas	UO – educational services areas – schools UO – built-up areas with educational services UO – educational services areas UO – built-up areas with educational services UO – built-up areas with educational and cultural services UO – built-up areas with utilities for educational services UO – built-up areas with education and science services UO – built-up areas with education and science services U-p – educational services areas – kindergartens U-Og – educational services areas – Junior High schools U-Os – educational services areas – secondary schools	UO – educational services areas UOp – educational services areas – kindergartens UOs – educational services areas – primary schools UOg – educational services areas – Junior High schools UOś – educational services areas – secondary schools
Undetermined	UK – cultural services areas	UK – built-up areas with cultural services UK – built-up service areas – culture UK – built-up areas with religious cult services UKK – areas with religious cult services UUK – built-up areas with utilities for cultural services	UK – cultural services areas
US – sports and recreation areas	US – sports and recreation service areas	US – built-up areas with utilities for sports and recreation services US – sports and recreation areas	US – areas of sports and recreation services
UC – areas with retail and commercial venues with sales area over 400 m <sup>2</sup>	UC – areas of large-scale retail services	UC – areas with retail and commercial venues with sales area over 2000 m <sup>2</sup> UC – commercial services areas UCH – areas with non-basic services including large-scale retail services	UC – areas of large-scale retail services
Undetermined	UH – areas of commercial services	UH – built-up areas of commercial services U-HB – areas of commercial services and offices U-HA – areas of commercial services, offices and administration	UH – areas of commercial services

Source: [Jaroszewicz et al. 2013, pkt 3.4.1]



Source: author's study based on the 'Catalogue of land use items...' [Jaroszewicz et al. 2013]

Fig. 5. Hierarchy of the classification of residential built-up areas according to the 'Catalogue of land use items...'

It is urban planners who decide the level of detail, according to which they want to determine the designation of the area. In proposing a new designation, the urban planners must determine its position in a particular level of the hierarchy. This ontological approach makes it easier to search for information and, importantly, it makes it possible to develop, in the future, mapping rules for the national standards for the classification of land use (if such standards are created) for the HILUCS classification.

The 'Catalogue of land use items...' is a comprehensive document, which can be used in the future, in order to further work on the development of the planning standards. What is disturbing, however, is a noticeable trend of starting all the work from scratch every time, without the use of the results achieved and contained in the earlier studies.

Also noteworthy is a project titled 'The acceleration of the growth of competitiveness of the Mazovia Region, by building the information society and knowledge-based economy, through the creation of integrated knowledge bases for Mazovia', also called 'The BW Project'.<sup>13</sup> This is a key project, entered in the Indicative Investment Plan in the framework of the Mazovia Regional Operational Programme for the years 2007–2013,<sup>14</sup> Priority I: 'Creating conditions for the development of innovation potential and entrepreneurship in Mazovia.'

<sup>13</sup> <http://www.geodezja.mazovia.pl/projekty/bw/projektbw.html>

<sup>14</sup> <http://rpo.mazovia.eu/regionalny-program-operacyjny/regionalny-program-operacyjny.html> (accessed: 10.12.2016).

The main tasks within the BW Project included:

1. To gather and organize the appropriate data structure for Topographic Database (TBD) of Mazovia Region, according to the 'Technical guidelines for TBD' by the Chief State Surveyor.
2. To support work related to the transformation of the land and buildings records (EGiB) into digital form, to supplement the data on buildings and to effect the modernization of the records; to transform the base map (primer) into numerical format; to carry out works related to the transformation to digital format of other spatial data, to scan documents which justify entries into the EGiB.
3. To develop the concept for the standardization of municipal studies of conditions and directions of spatial development, local development plans and regional spatial development plan.
4. To convert the existing municipal studies of conditions and directions of spatial development, local development plans, and regional spatial development plan to digital formats, and to include these studies in the MSIP.<sup>15</sup>
5. To create digital data sets for the records of towns and villages, streets and addresses, and the inclusion of these collections in the MSIP.
6. To deliver and implement the components of MSIP at the county and municipal level.
7. To implement the system for managing the county geo-reference database (database of detailed data of geodetic matrixes, the EGiB database, the GESUT database, databases of topographic objects covered by the content of the basic map and database of land prices and property values), and to integrate this system with the MSIP.

The materials and documents, developed in the framework of the aforementioned project, were among others, the foundation work for the 'original' Team for spatial data 'land use' theme.

6. Will the changes in the *Law on Government Administration*, regulating the supervision over the Chief State Surveyor, help streamline and facilitate the harmonisation of *Spatial Planning and Development Law* to the INSPIRE Directive?

Considering the changes introduced to the law on government administration, involving the transfer of geodesy and cartography matters to the new field of 'construction, spatial planning, land use and housing,' including the introduction of the supervision over the Chief State Surveyor by the minister responsible for construction, spatial planning, land use and housing, it may be presumed that the intention of the legisla-

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<sup>15</sup> Polish abbreviation of: Mazowiecki System Informacji Przestrzennej (Mazovia Region System of Planning Information)

tor was to achieve systemic changes in the sphere of spatial planning and land use, in conjunction with construction regulations and the geodetic and cartographic law. So far, amendments to the: Law on Spatial Planning Development; Construction Law; and Geodetic and Cartographic were implemented, effectively, separately from each other. Each law regulates its own scope, and the amendments thereto, in the most part, related precisely to their separate scopes of operation.

Due to the currently existing legal discrepancies in the abovementioned areas, the intention of the legislator should be upheld, as it carries the hopes of a change for the better. Finally, spatial planning and land use would not be separated from the building law and technical conditions, as well as the land and buildings records. The hope lies also in the Report on problematic issues in the field of spatial planning, developed by the Ministry of Infrastructure and Construction, which provided information material to the meeting of the Committee on Local Government and Regional Policy on 11 May 2016. The aforementioned material is a presentation of the most important issues and problems, in the assessment of the Ministry, pertaining to spatial planning in Poland, under the Law for spatial planning and development and its regulatory environment.

In the present *Report*, the ministry indicates problems in the following areas:<sup>16</sup>

- 1) narrow perception of spatial planning as State policy;
- 2) complex legal environment of the Law on spatial planning and development;
- 3) broad and unjustified liability for damages by public government bodies
- 4) private interests versus the public interest – the lack of balance;
- 5) the study [of conditions] as an insufficiently effective instrument for space management;
- 6) slowdown of planning work;
- 7) planning decision [on the conditions of building construction];
- 8) lack of systemic financing of spatial planning;
- 9) consolidations and divisions;
- 10) no institution of derogation within the framework of the planning procedure;
- 11) public participation in urban planning;
- 12) public investments;
- 13) requirements of State defence and security are not sufficiently taken into account in the planning system;
- 14) weak links between documents at different levels of space management;
- 15) planning at the national level;
- 16) planning at the regional level;
- 17) functional planning;
- 18) spatial data.

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<sup>16</sup> <http://mib.gov.pl/files/0/1797146/raportproblemyplanowaniaprzestrzennego.pdf> (accessed: 10.12.2016).

The above listed issues, defined by the Ministry, indicate a full understanding of the problems that occur in the practical application of planning and spatial development regulations, including those related to the Infrastructure for Spatial Information in the spatial data 'land use' theme. The present line of action by the Ministry must therefore be upheld.

## 7. Conclusions

INSPIRE Directive in Poland was implemented by the ISI Act. The ISI Act itself, however, did not introduce changes to the Law on spatial planning and development. Was this, in fact, the legislator's intention?

It should be noted that still, today, the law on spatial planning and development has not been adapted to the issues of the INSPIRE Directive; and therefore it has been operating 'as if separately' from the ISI Act and regulations.

Bearing in mind the problems that occur primarily in the field of digitization of planning documents, i.e. municipal studies for the conditions and directions of spatial development and local zoning plans, as well as with the view to differences that arise between the arrangements set in the visual Annexes (drawings) to the local zoning plans and records of land and buildings, geodetic records of public utilities GESUT, etc., as well as the lack of so-called planning standards, that would ensure the quality of the planning data, their harmonization with reference data sets, and definition of a standard data model, it seems necessary that the minister responsible for construction, spatial planning, zoning, and housing (currently the Minister of Infrastructure and Construction), should take action, aiming to bring the law on spatial planning and development, to the extent that is appropriate, in harmony with the provisions of the spatial information infrastructure (not only the ISI Law, but also the implementing rules). This action would solve problems in the field of digitization of the planning documents, i.e. the municipal studies of conditions and directions of spatial development and local development plans. It seems necessary for the Minister to issue a regulation on the contents of the draft regional spatial development plan.

Legislative changes concerning the acquisition, by the above Minister, of the supervision over the Chief State Surveyor, and the inclusion of matters in the field of geodesy and cartography in the public administration department of 'construction, planning, land use planning and housing' can be the basis for the introduction of comprehensive legal changes, not only in terms of planning and zoning and the Infrastructure for Spatial Information, but also in terms of land and buildings records, as well as the construction law, so as to eliminate, among others, the discrepancies described above.

Looking at the 'Detailed Description of the Contract (Tasks) involving the drafting of standards for planning databases,' published on the website of the Ministry of Infrastructure and Construction ([www.mib.gov.pl](http://www.mib.gov.pl)), on the one hand, one can congratulate the Ministry on the comprehensive and complete treatment of the problem, but on the other hand, it can be noted that the above work is contracted as a task to be performed 'from scratch.' It is a pity that instead, it is not based on the studies that

have already been done, for instance, on the 'Catalogue of land use items...' discussed in point 4, which is a development based on solid analytical material, and which can be a starting point for further work, in particular with regard to the establishment of standard nomenclature in addition to the so-called good practices developed in the various provinces considered leaders in the Infrastructure for Spatial Information in Poland, in the spatial data 'land use' theme. The 'Catalogue of land use items...' is, by far, the most complete document, endeavouring to harmonize the classification of local development plans, in line with practice and legislation, aiming to develop a national classification. Regional studies in given provinces usually rely on generalized classification of land and other facilities. The present catalogue is the only one to provide a fairly complete analysis of possible items. It had been consulted with a number of people associated with conducting reference databases, for instance, on monuments, etc. According to the authors of this article, the 'Catalogue of land use items...' should be included in further work by the Ministry. The assumptions of the said catalogue should be submitted by the competent Minister to a wide-ranging discussion in the milieu of planners, local government units, businesses, etc. – such were the demands, assumed within the catalogue itself, and such were the findings of the 'original' Team for spatial data 'land use' theme. The present course of action is disturbing, because it does not take into account the existing *acquis* in the subject.

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