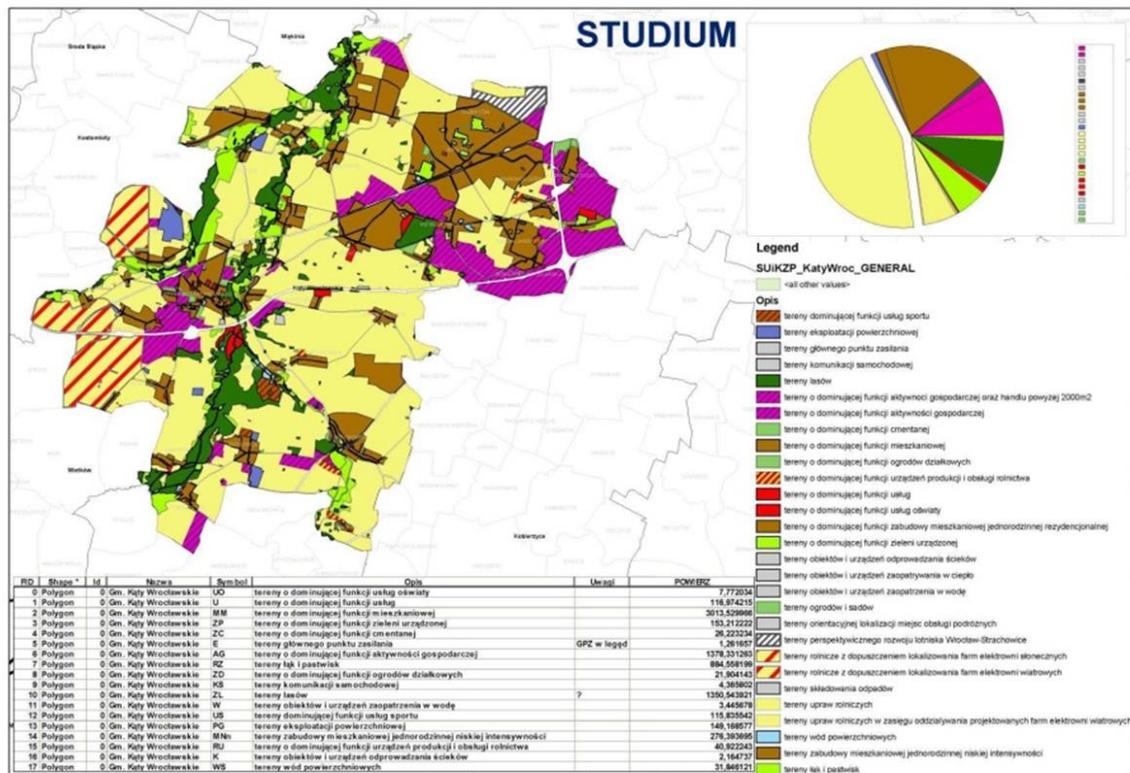


"In search of a common interpretation" of the Land Use spatial data theme of the INSPIRE Directive in Polish conditions.

EXPERT INTERVIEW REPORT DIGEST



Author:

Beata Stelmach-Fita PhD
 Geography Institute,
 Pedagogical University of Krakow,
 with the financial support
 UE, European Social Fund, Grant
 CAS 16 / POKL grant - 24 months
 of Center for Advanced Studies,
 Warsaw University of Technology,
 E-mail: bfit@up.krakow.pl

© October 2021

Acknowledgements

The author are grateful to the administration (Ministry of Infrastructure, Institute of Territorial Development in Wroclaw, Wroclaw Development Office in the City Hall, Office of the Mazovian Surveyor in Warsaw, Pomeranian Territorial Planning Office in Gdansk, Regional Directorates for Environmental Protection, Polish Geological Institute, National Research Institute), scientific units (Faculty of Architecture and Faculty of Geodesy of the Warsaw University of Technology, Institute of Spatial Management and Housing in Warsaw, Warsaw University of Life Sciences, Institute of Geography and Spatial Management in Warsaw, Institute of Geodesy and Cartography in Warsaw, Institute of Urban Development, enterprises (Warsaw Development Planning Office, Warsaw Geodesy Enterprise in Warsaw, Small GIS from Krakow) and all the expert for their support and facilitation during the interview.

I am particularly grateful to: Olgierd Dziekoński, Prof. Sławomir Gzell, Prof. Sławomir Anusz, Prof. Jan Maciej Chmielewski, Prof. Zenon Parzyński, Prof. Dariusz Dukaczewski, Prof. Andrzej Gładzowski, Prof. Dariusz Korpetta, Prof. Stanisław Białołuż, Prof. Przemysław Śleszyński, Prof. Jadwiga Brzuchowska, Maria Andrzejewska, Marcin Świetlik, Przemysław Malczewski, Jaromar Łukowicz, who facilitated the expert interview process in the first stage of research 2011-2013.

My gratitude also goes to the regional delegates of I am also grateful to the delegates of regional marshal offices for the participation of specialists in the survey and to the employees of the Territorial Institute in Wroclaw (Przemysław Malczewski), the Pomeranian Regional Planning Office in Gdansk (Jakub Pietruszewski), the Society of Polish Town Planners - Warsaw Branch and the professors of the UPC Catalanian University of Technology in Barcelona (Rolando Mauricio Biere Arenas) for participating in in-depth interviews of the second stage of the research 2016-2019.

Acronyms

<i>IGPiM</i>	<i>Instytut Gospodarka Przestrzennej i Mieszkalnictwa / Instytutu of Spatial Management and Housing</i>
<i>IRM</i>	<i>Instytut Rozwoju Miast / Institute of Urban Development</i>
<i>ISPiK</i>	<i>Instytut Systemów Przestrzennych i Katastralnych SA / Institute of Spatial and Cadastral Systems SA</i>
<i>IGiK</i>	<i>Instytut Geodezji i Kartografii / Institute of Geodesy and Cartography</i>
<i>IGiPZ</i>	<i>Instytut Geografii i Przestrzennego Zagospodarowania / Institute of Geography and Spatial Development</i>
<i>RDOŚ</i>	<i>Regionalne Dyrekcje Ochrony Środowiska / Regional Directorates for Environmental Protection RDEP</i>
<i>BGWM</i>	<i>Biuro Geodety Mazowieckiego / Office of the Mazovian Surveyor</i>
<i>IIP</i>	<i>Infrastruktura Informacji Przestrzennej / Spatial Information Infrastructure</i>
<i>SII</i>	<i>Spatial Information Infrastructure</i>
<i>TUP</i>	<i>Towarzystwo Urbanistów Polskich / Society of Polish Town Planners</i>
<i>suikzp</i>	<i>studium uwarunkowań i kierunków zagospodarowania przestrzennego gminy / study of the conditions and directions of spatial development in a municipality</i>
<i>mpzp</i>	<i>miejscowy plan zagospodarowania przestrzennego / sub-local zoning plan</i>
<i>pzpw</i>	<i>plan zagospodarowania województwa / voivodeship spatial development plan</i>
<i>kpzk</i>	<i>koncepcja przestrzennego zagospodarowania kraju / national spatial development concept</i>
<i>HILUCS</i>	<i>Hierarchical INSPIRE Land Use Classification System</i>
<i>HSRCL</i>	<i>Hierarchical Supplementary Regulation Code List</i>

Summary

This study is part of the research "Assessment of public access to data on the data theme land use of the INSPIRE Directive in Poland". The assessment examines the access to spatial data from the user's point of view and the related issue of quality and completeness of the shared data sets. The starting point for the assessment were the interviews of experts, and the main research goal was to identify the most important needs and limitations from the user's point of view regarding the provision of comparable, complete data on spatial development, along with an indication of recommendations for significant directions of activities aimed at harmonizing spatial data sets in the discussed topic. The study was aimed at gathering knowledge in a new field so that it was possible to outline directions for solving the difficult problems described in the report.

The spatial scope of the interviews and other parts of the overall research concern the regions of Poland. On the other hand, the analysis of the literature on the subject and the state of research concerned the USA and, above all, the EU countries, the Netherlands, Germany, France, Austria and the Czech Republic, whose representatives created the INSPIRE technical guidelines for the topic "land Use". The analysis and interpretation of the applicable INSPIRE guidelines applies to European countries, including Poland.

The starting point in the first stage of the 2011-2013 research were interviews with experts, and the main research goal was to identify the most important needs and limitations from the user's point of view in the provision of comparable, complete data on spatial development, together with recommendations for important directions of activities aimed at harmonizing collections spatial data in the discussed topic. The study was aimed at gathering knowledge in a new field, so that it was possible to outline directions for solving difficult problems described in the report. The second stage of the 2017-2019 research, in addition to the survey addressed to 16 marshal offices, a case study of activities undertaken at the regional level, was also supplemented with individual interviews, mainly with spatial planning practitioners. The entire study was verified during several discussions at the Society of Polish Town Planners in Warsaw and discussions with UPC professors in Barcelona.

This report contains only the results of interviews with 30 key professionals and experts in the first stage of research using a questionnaire and 10 experts in-depth interviews using the "question structure".

Interview results with 30 experts using a questionnaire - "Land Use"

Expert interviews were conducted with 30 experts from Poland, including: training specialists - 6.3%, GIS specialists - 23.3%, planners - 40%, representatives of the Regional Directorates for Environmental Protection - 30%. This study lasted 6 months and was started during the INSPIRE Experts Training organized by the Chief National Surveyor on June 2-3, 2011, in which the author of the report participated. 30 people responded to the written invitation addressed to approximately 50 people. The study analyzed the understanding and interpretation of the INSPIRE spatial data theme of the INSPIRE Directive from the point of view of users. In addition, in-depth interviews were conducted with 10 experts using the prepared structure of interview questions.

o Understanding spatial data theme "Land Use"

The study showed the ineffectiveness of the current planning documents and a defective law regarding the planning system.

"Planned Land Use, understood as land development, resulting from planning documents. Any already existing set of spatial data concerning spatial planning in numerical form and vector notation. The last requirement is a de facto requirement. It appears in all the specifications published so far. It should be considered whether IIP should also apply to registers that are causally related to spatial data and if so, to what extent these relationships should be represented. Documents (decisions) registers that are mentioned above relationships and are the basis for changes in development should remain outside the spatial data resource covered by the IIP, while modeling of relationships between them and spatial data sets should take place". (Interviewer 1).

The group of planners, town planners, participants of the INSPIRE expert training "I would define the data set corresponding to the future development not as a set resulting from planning documents (if we understand it through the prism of the Act on spatial planning and development and legislation in force in the field of location decisions), but a set of spatial data resulting specifically from: the provisions of the local development plan, the

decision on the conditions buildings, "special act", public purpose investments, investment programs, etc., due to the inconsistency of the resulting decisions". (Interviewer 2)

- **Access to spatial data from decisions and the form of their sharing**

Most respondents considered that the decisions issued create legal status and are an important source of information on spatial development.

Supplementary statements were extremely different: 1 - planner, 2 - geographer, KPZK expert

1) "Yes. Data resulting from all decisions that are not consistent with planning documents or development programs should be made available. If they were not inconsistent with them, there would be no point in referring to the decisions themselves, because then reliable geodetic materials (existing state) and planning materials (future state) should suffice". (Interview 2)

2) "No, because it is fragmentary information that only covers part of the transformations in a given area. On the other hand, it is logical to create an exhaustive system covering all phenomena. The group of decisions worth considering are decisions on development conditions and decisions on the location of a public purpose investment, because it is an indicator of investment pressure ("micro-pressure index" on the part of investors, most often - individual)". (Interview 4)

The majority of 76, 7% of respondents believe that the most important spatial data from decisions should be generalized to be available in the IIP (**decision register as a set of their locations**). 10% of respondents believe that only a graphic attachment with the information should be provided, 13.3% - marked "It's hard to say".

- **Quality and completeness of data sets in IIP in accordance with the INSPIRE guidelines**

"A metadata profile for a given thematic group should be created primarily for the user's needs." (Interview 7)

- **Two metadata profiles for Land Use**

"Two metadata profiles should be created for the existing and planned Land Use" (Interview 10).

- **National and European level**

"Ultimately (by 2019) data sets, the structure of which complies with national law and technical standards, and to which the metadata sets will be developed, should be made available through standard web services. INSPIRE collections, i.e., those that will be made available to the European Union community must follow a compatible structure with data specifications and other EU standards." (Interview 8)

- **Limited amount of metadata**

"Each country, depending on the needs of users, may, in accordance with the 19115 standards, greatly expand the list of metadata items. "For the sake of the entire community infrastructure, these elements should be as few as possible." (Interview 9)

Conclusion

The results of the survey proved to confirm the problems with defining the data theme "spatial development" in Polish conditions. Moreover, they proved the ineffectiveness of the functioning planning documents. Therefore, sharing only these documents in IIP will not meet the quality and completeness criterion of IIP determined by the needs of users. The selection of a planning document to be made available at the European level is also problematic, and at the same time it requires meeting the guidelines of the technical specification "Land Use". The theses about the needs of: resolving the dilemmas of hierarchy, establishing a definition of a planning act / document and creating at least one zonal operational plan covering the area of the entire municipality (which would "direct

directly or indirectly further activities in a given municipality” - this is a hint from the definition of the plan in the USA). The thesis about the need to resolve the issue of the basic provisions of the functions and land use in Polish local planning documents was also substantiated, which would facilitate the decision on further directions of harmonization of data sets corresponding to the planned spatial development. The spatial planning system requires completion of the reform. The problem of the lack of access to much needed other spatial data, which is an important source of information about the planned spatial development, has not been solved in Poland.

Two metadata profiles should be created for:

I - Existing Land Use

II - Planned Land Use.

1. Context and justification

Spatial planning is only one of many political sectors, next to the economy, education, energy, etc., but it plays a central role in the process of managing various areas. Spatial planning and spatial policy are ubiquitous and concern many entities. The entire public opinion needs access to reliable data, but most of all experts and public administration bodies. Good organization of sharing such data is to enable making many decisions based on reliable knowledge, and not only on intuition. ***The Thesis:***

The provision of datasets on a new type of land use plan / general plan for the area of the entire municipality in IIP, obligatory for all administrative bodies to draw up all administrative plans and decisions based on it, will be a solution to the problem of incompleteness of land use datasets at the local level, as it will also strengthen public participation relevant to territorial dialogue in new integrated planning at local, sub-regional and regional level.

The thesis is related to the problem of the lack of hierarchy between spatial policy instruments at the local level and considers reservations about *suikzp* about the lack of consistency with the decisions issued. This only document, which is developed for the entire municipality, did not even have to be made available to the public by 2020. Even if it was decided to make it available in the IIP, it is not a reliable source of information about the planned spatial development, because the issued decisions determining spatial development, in the light of some jurisprudence, do not have to comply with it. To obtain a real picture of the planned spatial development, it is necessary to refer to the applicable sub-local zoning plans, collections of locations, decisions on development conditions and special decisions, which are, admittedly, in the resources of the administration, but most often in paper versions and sometimes made available in the pdf version as a list of decisions.

In the assumption of INSPIRE, ***the quality and completeness of data sets should be determined by the needs of users.*** According to the regulations, public administration bodies are to provide access to spatial data sets and the corresponding network services. The lead authority coordinates which documents and in what form, format and scope are to be made available. As a result of the analysis of the regulations as of June 30, 2012, and then the verification of the legislation after eight years (in 2021), it was found that the term “planning document” is still not defined. The lack of a definition of a plan, spatial planning, spatial policy, spatial policy instruments, etc., along with various legal gaps, could indirectly affect the current state, i.e., the negligible role of planning documents and the disappearance of the spatial planning system with an increasing rate of investment micro-pressions. The term “spatial planning” was intentionally dropped when the 1994 Act on Spatial Development was amended. The continuity of spatial planning was interrupted in 2003, when local general plans for the entire municipality area ceased to be binding and were replaced by studies (*suikzp*) that were valid only for the preparation of sub-local zoning plans (not for “location decisions”). In the first part of the research, the author identified the types of spatial policy documents and instruments as of June 1, 2011. Such documents were mentioned in the expert study. Amendments to the acts in 2021 did not solve these problems, therefore the first part of the research is important to justify the theses. The INSPIRE guidelines relate to registers, and not every act describes who keeps a register. Pursuant to the Act of February 17, 2005, on the activities of entities performing public tasks, a public register is understood as a register, records, list, list, inventory, or other form of records used for the implementation of public tasks, kept by a public entity on the basis of separate statutory provisions. The table contains a list of all planning documents and decisions determining spatial development in 2011.

There is no definition of a “planning act” or a “planning document” in Polish regulations. In the public procurement on "Design of standard models of planning data and metadata profile for planning studies" implemented for the needs of the Marshal of the Masovian Voivodeship in 2012, to be able to implement them at all, certain assumptions had to be made, including the definition of terms.

Table S1. Classification of documents determining spatial development in Poland

Lp.	Document name / abbreviation	Responsible authority ¹
1	kpzk - planning document, national [register-?]	Minister for regional development
2	pzpw - planning document, regional [register-?]	Marshal of the Voivodship
3	suikzp - planning document, local level	mayor or city president
4	mpzp - planning document, sub-local zoning plan	Registry – is kept by head of the municipality
5	decisions on establishing building conditions.	Register – is kept by head of the municipality
6	decisions on establishing the location of a public purpose of local importance	Register – is kept by head of municipality (mayor, city president)
7	decisions on establishing the location of a public purpose of voivodship and national importance	Register – The Marshal of the Voivodship
8	decisions on establishing the location of a public purpose of voivodeship or national importance (after the expiry of the deadline ineffective)	Register – The Marshal of the Voivodship
9	decisions on establishing the location of a public purpose investment in closed areas	Register – The Voivode
10	decisions on establishing the location the location of a railway line	The voivode issues decisions
11	decisions on establishing the location of the motorway	The voivode issues decisions
12	decisions on establishing the location Euro 2012 investments	The voivode issues decisions
13	decisions on determining the location of investments in the scope of the liquefied natural gas regasification terminal in <i>Swinoujscie</i>	The voivode issues decisions
14	decisions on the location of the regional broadband network	Register - the Minister of Construction, Spatial Planning and Housing
15	decisions on permits to implement road investments in relation to county/district and municipality roads	The Starost issues decisions
16	decisions on permits to implement road investments in relation to national and voivodeship roads	The voivode issues decisions
17	decisions on the permit for the implementation of investments in the field of a public use airport	The voivode issues decisions
18	decisions on a permit to operate a mining waste treatment facility	Marshal of the Voivodship issues decisions ²
19	decisions on permits for the implementation of investments in the field of flood protection structures	The voivode issues decisions
20	Building permit decisions	The Starost issues decisions
21	Government programs (changes in competences were expected)	Register - the Minister of Construction, Spatial Planning and Housing

The Contractor's task was to indicate the relationships and common elements of three types of documents. The following definition of a "planning document" was adopted: "It is a document establishing and shaping the spatial policy in a municipality, voivodeship or country specified in the Act of 27 March 2003 on spatial planning and development." It is not an unambiguous definition

¹ In cases of lack of information whether the register is kept, only the authority responsible for drawing up the planning document or issuing the decision was entered.

² Marshal of the Voivodeship for projects for which the concession for exploration, appraisal, and extraction of minerals from deposits is granted by the minister responsible for the environment or the voivodeship marshal (...)

considering that the planning documents listed below are of different nature and fulfill different strategic and regulatory roles (i.e., not all of them establish and shape the spatial policy):

- *National Spatial Development Concept* (it shapes the spatial policy, scope, form is not regulated by regulations, scale 1: 50,000);

- *Voivodship Spatial Development Plan* (shapes the spatial policy, scope, form is not regulated by regulations, scale 1: 25,000);

- *Study of the Conditions and Directions of the Spatial Development of the Municipality* (specifies the spatial policy of the municipality, including the analysis of the current and future use of the area, scale 1: 10,000);

- *Sub-local zoning plan* is the only act of local law, specifying the intended use of the area and the manner of its development, scale 1: 1000, 1: 2000, (prepared depending on the needs).

The findings of the study are binding on the municipality authorities when drawing up local plans. However, it is not clear what is the relationship between the study and decisions on building conditions and land development, or whether the provisions of the "study" apply to the substantive preparation of the decision by the designer. This most serious problem - the main source of chaos in spatial management - has long been noticed, including the summary of the previous act of 1994 and the creation of a new one - of 2003. The legal loophole has been transferred to the next act. For the study to be an effective instrument of spatial policy, it is necessary to:

- determining the place of the study in spatial planning and planning of the development of the municipality,

- strengthening the position of the study in the legal system in terms of determining who and to what extent the study's arrangements apply.

Many town planners and practitioners recommended a general local plan for the entire area of the municipality. Such a plan, with a defined scope of arrangements (enabling mainly the coordination of public tasks), should apply only to public institutions. Moreover, it would indicate the areas to be covered by obligatory local plans with the established sequence of their preparation. Only in Poland, the spatial planning system on such a large scale is based on decisions made by one-person authorities.

2. Expert survey using the questionnaire – “Land Use” (theme of spatial data)

The study conducted in 2011–2013 was aimed at gathering expert knowledge in a completely new field to a very limited extent. The challenges, the obligations arising from the new directive, coincided with the widespread criticism of the spatial planning system that needed repair. Territorial self-government units are in the most difficult position, as they realized that they were awaiting new obligations, but it was not known until the end what they were supposed to consist of (a general legal framework was created). The lack of knowledge transfer in this area exposes them to misinterpretations of the harmonization of collections (semantic issues of the names of functional zones and land destinations) and the interoperability of data sets (sharing of GML³ data sets), or perhaps also unnecessary and costly activities, such as vectorization of existing ones, old documents created on non-standardized reference files, distorting, and sharing them. In Europe, these are voluntary action strategies called powering spatial information systems, but not the pursuit of harmonization, interoperability of datasets of a new quality of plans. The guidelines of the "Land Use" specification and the definition of the topic "spatial development", contained in the Act on spatial information infrastructure of 10 May 2010, refer to planning documents, and not - to administrative decisions. There may be times when you need to transform existing resources, replenish them, and, in some cases, recover missing items to fully comply with the guidelines.

The question of what Polish planning document will be made available at the European level is a debatable issue. The study was to confirm, inter alia, that there are other documents conditioning spatial development, i.e., decisions (including special decisions), which are - on a par with local development plans - the primary source of information on spatial development. The study was to confirm the

³ GML - Geography Markup Language

dilemmas related to the hierarchy of documents determining spatial development. The zoning data provided should be complete and made available at the most appropriate level. The study began on June 1, 2011. Several questions of the questionnaire were developed, which were then modified based on interviews with participants of the INSPIRE training series, organized by the Chief Surveyor of the country for administration employees (on 2-3 June 2011). Very few planners participated in the training, therefore, people who practically or scientifically deal with spatial planning and GIS technicians, as well as employees of the Regional Directorate for Environmental Protection (due to agreeing planning documents and giving opinions on building conditions and land development) were additionally invited to participate in the study). The lead authority responsible for the subject of environmental protection was previously required to identify the relevant spatial data sets. This resulted in 30 complete responses to approximately 50 invitations received. Invitations were sent, among others up to five research institutes (IGPiM, IRM, ISPiK, IGiK, IGIPZ), up to approx. 20 city planning studios and operating at the voivodeship level (within the structures of the voivodeship marshal or outside them), up to 16 RDEP (with a request to hand them over to competent persons dealing with INSPIRE issues, spatial planning), up to seven GIS specialists, two speakers training experts. The invited representatives from IGPiM, IRM and ISPiK, even though they did not respond to the questionnaire due to lack of time, provided several interviews and helpful comments. In principle, the form was not to discourage with its length and number of questions. The study was completed on May 30, 2012. The structure of participants consists of four groups: planners, planners - 11 people, specialists, GIS technicians - 8 people, representatives of RDEP - 9 people, surveyors training experts - 2 people.

2.1. Description of questions and test results

The first question in point 1 concerned the issue of the definition of the topic "land use" (spatial data sets of documents that should be made available in the IIP). Point 1 was to show whether only planning documents should be considered, or - also other documents and decisions. Point 2 - whether the above-mentioned decisions constitute a source of basic information on spatial development on a par with local law acts (local law). In the case of sharing spatial data concerning decisions, the question was asked whether the graphic attachment should be in the raster form or as generalized information in the form of decision location sets. In the next section 3, the question was asked whether - regardless of the consideration of publication of data from location decisions - such legislative changes should take place soon, within which decisions (at least most of them) should be abolished. An important question in the examined issue was whether all areas intended for urbanization should be included in the plans. It was an inspiration to solve the problems related to the lack of hierarchy of documents and the lack of access to complete data sets conditioned by the needs of users. Due to defective law, municipalities have no incentive to prepare local plans. Anyway, these plans are fragmented, developed for several plots of land. Regulations that allow RDEP only to give opinions on decisions (instead of necessary arrangements) are also a big problem in environmental protection. The study was to justify the theses about the need to resolve the dilemmas of the hierarchy of documents determining spatial development, as well as about the need to create a new type of regulatory plan covering the area of the entire municipality. Currently, the decisions, apart from the sub-local zoning plan, are still a source of basic information on spatial development. If the discussed decisions turned out to be consistent with the study or other plan covering the area of the municipality, there would be no need to use such detailed spatial data resulting from the decision. The remaining questions were aimed at gathering experience regarding access to spatial data needed in each unit, as well as sharing various spatial data sets needed by other units. The penultimate question was related to the problem of incomplete coverage of Poland with geodetic maps in digital form (databases), i.e., reference geodetic datasets for spatial planning - which is the main reason for the lack of planning documents developed in the GIS technique in a specific geographical coordinate system (preferably - uniform throughout the country). The need to establish two metadata profiles for the existing and planned development and at least a minimum standard for recording planning studies was seen. The responses were to confirm this or verify the above expectations.

3. Results of the analysis of the responses contained in the questionnaires

1. *Which sets of spatial data, contained in public registers, should be classified under the spatial data theme "land use" referred to in chap. 3 point 4 of the Annex to the Act of March 4, 2010, on ISI?*

(INSPIRE: Territory characterized according to its current and future planned functional dimension or socio-economic purpose (e.g., residential, industrial, commercial, agricultural, forestry, recreational).

Polish Act of March 4, 2010, on ISI: Territory characterized according to its current or future planned functional dimension or socio-economic purpose (e.g., residential, industrial, commercial, agricultural, forestry, recreational).

First, the author draws attention to the important statements of two groups:

I - The group of INSPIRE expert trainers

"Spatial development, understood as land development, resulting from planning documents. Any already existing set of spatial data concerning spatial planning in numerical form and vector notation. The last requirement is a de facto requirement. It appears in all the specifications published so far. It should be considered whether IIP should also apply to registers that are causally related to spatial data and if so, to what extent these relationships should be represented. Documents (decisions) registers that are mentioned above relationships and are the basis for changes in development should remain outside the spatial data resource covered by the SII/SDI, while modeling of relationships between them and spatial data sets should take place ". (Interview 1)

II - The group of planners, town planners, participants of the INSPIRE expert training

"I would define the data set corresponding to the future development not as a set resulting from planning documents (if we understand it through the prism of the Act on spatial planning and development and legislation in force in the field of location decisions), but a set of spatial data resulting specifically from: the provisions of the local development plan, the decision on the conditions buildings, "special act", public purpose investments, investment programs, etc., due to the inconsistency of the resulting decisions ". (Interview 2)

"Thus, almost all respondents believe that in Poland planning documents are not the only source of information about future spatial development. Location decisions are part of the legal reality that influences development, creates new legal states, and must be included in the planning procedures specified in the Spatial Planning and Development Act. Therefore, information about these decisions should be available in SII". (Interview 3)

2. *Should only the following documents be considered as potential spatial data sets (corresponding to future spatial development): kpzk, pzp, suikzp, mpzp?*

The following planning documents are listed in electronic form as spatial data sets, which should be described with metadata and made available in the IIP. The chart below shows an indication of all planning studies that were in force at the time of the study at the local and regional level. However, there are different responses pointing to doubts as to the need to provide planning documents in IIP, the role of which is negligible when it comes to PLU (suikzp, pzp, kpzk). It can be concluded that, in the opinion of users, all of them marked local plans, secondly - studies of conditions, and voivodship plans were indicated the least.

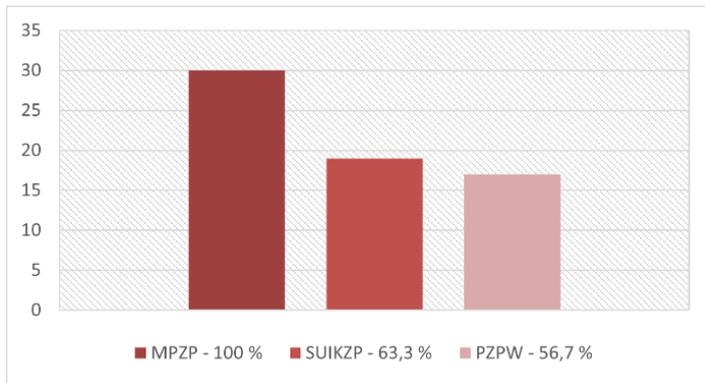


Figure S1. Which planning acts should be shared in IIP? Resource: Own study.

3. Are the decisions a source of information on Land Use/ spatial development?

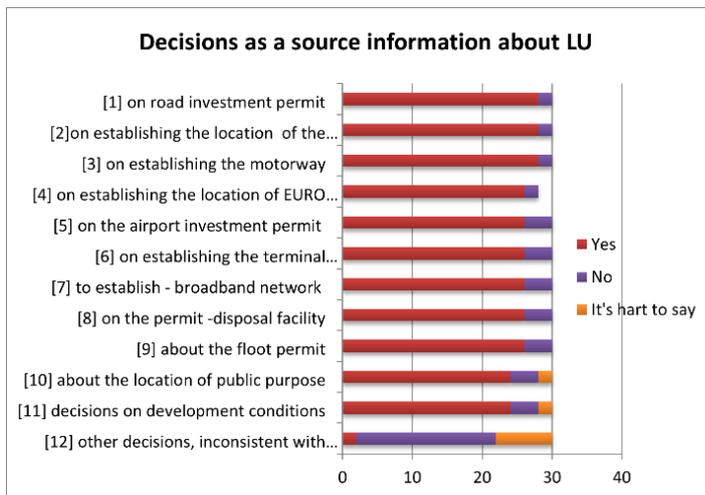


Figure S2. Decisions as a source information about LU? Resource: Own study.

Most respondents considered that the decisions issued create legal status and are an important source of information on spatial development.

Supplementary statements were extremely different: 1 - planner, 2 - geographer, KPZK expert

1) "Yes. Data resulting from all decisions that are not consistent with planning documents or development programs should be made available. If they were not inconsistent with them, there would be no point in referring to the decisions themselves, because then reliable geodetic materials (existing state) and planning materials (future state) should suffice". (Interview 2)

2) "No, because it is fragmentary information that only covers part of the transformations in a given area. On the other hand, it is logical to create an exhaustive system covering all phenomena. The group of decisions worth considering are decisions on development conditions and decisions on the location of a public purpose investment, because it is an indicator of investment pressure ("micro-pressure index" on the part of investors, most often - individual)". (Interview 4)

4. Are the decisions a source of information on spatial development?

If spatial data from the decision are made available, in what form?

a) Yes, but the entire decision should be considered, and relevant data selected (generalization).

b) Yes, but only the graphic attachment should be considered as a set of spatial data.

c) It's hard to say

The majority of 76,7% of respondents believe that the most important spatial data from decisions should be generalized to be available in the IIP (*decision register as a set of their locations*). 10% of respondents

believe that only a graphic attachment with the information should be provided, 13.3% - marked "It's hard to say".

The sharing of the most relevant spatial data from the graphic annex of the decision may be considered. The decision area may be such a data. The recommended solution is to treat the entire decision register of a given area as a set of spatial data, with the possibility of cartographic representation in the form of discrete localization sets (map of decision areas).

5. *Should there be such legislative changes soon that will exclude the issuing of the discussed decisions (at least - the majority)?*

Yes - 16 respondents answered, which constitutes 53.3%.

No - 2 respondents answered, which constitutes 6.7%.

It's hard to say - 12 respondents answered, which is 40%.

"Location decisions specified in the "special acts", as well as in the Spatial Planning and Development Act of 2003 (they were also supposed to be exceptional, not systemic), are only a prosthesis in the face of the shortcomings of the basic planning system, especially those related to its slow and complex procedures that do not ensure an effective path of translating governmental and provincial (and even municipal) programs into the implementation stage. Without improving the entire system, without a vision and an idea of how it should ultimately look like to make it operational, nobody will decide to liquidate them. They will continue to function despite obvious flaws. Since they are still issued, *they are part of the legal reality that influences development, creates new legal status, and must be considered in statutory planning procedures. Therefore, information about these decisions should be available even if it were to be outside the IIP. In addition, two metadata profiles should be created: for the Existing Land Use and for the Planned Land Use.*" (Interview 3)

6. *Should all areas intended for urbanization be covered by plans and acts of local law?*

Most respondents 83,3 % believe that land intended for urbanization should be included in local plans.

6,7 % of respondents believe that not all areas should be covered by sub-local zoning plans.

10 % of respondents do not have an opinion.

Entered comments:

"Not all of them - not for areas planned for urbanization but supplementing the forests of the existing rural development". (Interview 5)

"Not all - only when the purpose of the area changes, e.g., from industrial to residential". (Interview 6)

4. Results of the analysis of additional interviews with the use of the question structure.

Only the most relevant statements are selected below.

"A metadata profile for a given thematic group should be created primarily for the user's needs." (Interview 7)

"Ultimately (by 2019) data sets, the structure of which complies with national law and technical standards, and to which the metadata sets will be developed, should be made available through standard web services. INSPIRE collections, i.e., those that will be made available to the European Union community must follow a compatible structure with data specifications and other EU standards." (Interview 8)

"Each country, depending on the needs of users, may, in accordance with the 19115 standards, greatly expand the list of metadata items. "For the sake of the entire community infrastructure, these elements should be as few as possible." (Interview 9)

Two metadata profiles should be created for the existing and planned Land Use. (Interview 10)

Summary

The controversy regarding the identification of appropriate data sets in the discussed topic is a derivative of both the unsolved problem of the lack of hierarchy of planning documents and a defective legal system. Even though the data sets of the current planning documents are available in IIP, these are incomplete data sets in the context of users' needs.

According to the respondents, "spatial data resulting from all decisions that are not consistent with planning documents or development programs should be made available. If they were not inconsistent with them, there would be no point in referring to the decisions themselves, because then reliable geodetic materials (existing state) and planning materials (future state) should suffice". In the expert's opinion, it was necessary to consider whether IIP should also apply to registers remaining in cause-effect relationships with spatial data, and if so, to what extent these relationships should be represented.

Modeling of the relationship between the data sets of the planning documents covered by IIP and the decision registers should take place. There are technological possibilities of using various types of hybrid solutions, e.g., links pointing to decision location maps (apart from the IIP data resource). However, without resolving the hierarchy of planning documents and decisions, a problematic question will remain: what Polish plan will be made available at the European level, where the INSPIRE technical guidelines apply, and with them - hierarchical HILUCS and HSRCL classifications? In Poland, complete information about the planned spatial development does not result from "planning documents", but specifically - from the provisions of the local development plan, from the decision on land development conditions, from the decision to determine the location of the public purpose investment (municipality, voivodeship and national importance), "Special decisions" and "government programs" due to the inconsistency of these decisions with the "study of conditions".

The diverse form of developing a study of determinants makes it impossible to integrate all studies from the entire voivodeship for the purposes of creating a voivodeship development plan or an urban plan for a voivodeship center (former metropolitan area plan).

5. Structure of additional questions, in-depth interviews

Persons related to the implementation of new obligations under the INSPIRE Directive. Only initial questions have been prepared. Possible other ones appeared during the conversation (depending on the specialty of the interviewer):

1. How should the term "spatial data sets" be interpreted in relation to the spatial data theme: "Land Use"?
2. Should metadata be created only for existing "resources", registers, data sets? Should the creation of new sets be required to complete them to obtain completeness of data sets in the case of "Land Use" in Poland?

Structure of the interview of people related to the implementation of new obligations under the directive (Land Use). Additional questions:

1. How should the definition of the theme "spatial development" be interpreted?
2. Should decisions determining spatial development be made available in SII as an important source of information on spatial development?
3. Is the strengthening of the role of the conditions "study" (suikzp) as a document binding on the commune authorities when issuing decisions, a good course of action?

4. The original list of conducted interviews in Polish

Rozmówca	Stanowisko / pełniona funkcja / instytucja	Data rozmowy	Kod w tekście cytatów pochodzących z wywiadów
Olgierd Dziekoński	podsekretarz stanu w Ministerstwie Infrastruktury	20.01.2010	(brak cytatów)
Jacek Uchański	wiceprezes WPG SA	14.01.2010	(brak cytatów)
Bogdan Ney	profesor Polskiej Akademii Nauk	14.01.2010	(brak cytatów)
Jerzy Gaździcki	profesor, przewodniczący Rady Programowej IIP, prezes PTIP	20.01.2011	(2010)
Wojciech Pachelski	profesor, członek PKN, Komitet ds. Norm	10.02.2010	(2010)
Dariusz Korpetta	Informacji Geograficznej członek Zarządu PTIP – doradca ds. samorządów,	26.10.2010	
Stanisław Białousz	profesor Politechniki Warszawskiej	18.10.2010	(brak cytatów)
Marek Baranowski	dyrektor Instytutu Geodezji i Kartografii w Warszawie	18.08.2011	(brak cytatów)
Przemysław Śleszyński	profesor, Instytut Geografii i Przestrzennego Zagospodarowania	05.11.2010	(brak cytatów)
Jaromar Łukowicz	właściciel firmy <i>Struktura</i>		(2011)
Jan Chmielewski	profesor Wydziału Architektury Politechniki Warszawskiej, urbanista	03.03.2011	(brak cytatów)
Maciej Nowakowski	urbanista, członek TUP, profesor w Wyższej Szkole Przedsiębiorczości i Rozwoju Lokalnego w Falentach,	26.09.2011	(2011)
Sławomir Anusz (2 wywiady)	dyrektor Instytutu Gospodarki Przestrzennej i Mieszkalnictwa	08.06.2010 23.08.2011	(brak cytatów)
Zygmunt Ziobrowski	dyrektor Instytutu Rozwoju Miast	15.06.2010	(brak cytatów)
Jadwiga Brzuchowska	kierownik działu SIP w Biurze Rozwoju Wrocławia	08.06.2010	(2010)
Anna Wieczorek	urbanista	25.07.2011	(2011)
Małgorzata Hanzl	urbanista	18.10.2011	(brak cytatów)
Jerzy Szostek	prezes Gis Partner S.A. Wrocław	01.12.2011	(brak cytatów)
Jerzy Kisiel	współwłaściciele 24GIS Warszawie	03.09.2010	(brak cytatów)
Szymon Ciupa	i w Kielcach	03.09.2010	(brak cytatów)
Maria Andrzejewska	dyrektor Centrum Informacji o Środowisku UNEP/GRID, Warszawa	04.07.2011	(2011)
Przemysław Malczewski	zastępca dyrektora WBU we Wrocławiu	02.06.2011	(2011)
Paulina Nowakowska	kierownik Zespołu ds. INSPIRE	07.06.2011	(2011)
Maciej Tobiasz (dwa wywiady)	Państwowy Instytut Geologiczny		
Marek Bryll	kierownik Pracowni SIP, Powiatowy Zakład Katastralny we Wrocławiu	29.07.2011 22.08.2011	(2011)
Andrzej Sambura	dyrektor WBPP w Poznaniu	01.12.2010	(brak cytatów)
	prezes ISPiK S.A. Gliwice	09.06.2010	(brak cytatów)
pracownicy naukowcy Politechniki Warszawskiej		16.05.2011	(brak cytatów)
pracownicy naukowcy Instytutu Geodezji i Kartografii		02.06.2011	(brak cytatów)
pracownicy Biura Rozwoju Wrocławia		11.10.2011	((brak cytatów)
pracownicy Regionalnych Dyrekcji Ochrony Środowiska		02.06.2011	(2011)

The table does not include interviews from the second stage of the research from meetings: on 04/10/2016 with employees of the Institute of Territorial Development in Wrocław (Poland), including Przemysław Malczewski, deputy director, on 07/06/2018 with employees of the Pomeranian Regional Development Office in Gdansk (Poland), including Jakub Pietruszewski, director PBRR and on 23.06.18 with Prof. Rolando Mauricio Biere Arenas from UPC in Barcelona (Spain). All statements by name in the study were authorized.

5. Original questionnaire addressed to experts in Polish

KWESTIONARIUSZ – 1 czerwca 2011 r.

ZAGOSPODAROWANIE PRZESTRZENNE - KIERUNKI STANDARYZACJI ZAPISU TREŚCI PLANISTYCZNYCH

NAZWISKO IMIĘ, INSTYTUCJA, JEDNOSTKA, FUNKCJA LUB STANOWISKO

1. Jakiego Państwa zdaniem, zbiory danych przestrzennych, zawarte w rejestrach publicznych, powinny być zaklasyfikowane do **tematu danych przestrzennych** - „**zagospodarowanie przestrzenne**”, o którym mowa w Rozdz. 3 pkt. 4 załącznika do ustawy z dnia 4 marca 2010 r. o **infrastrukturze i informacji przestrzennej (IIP)**? (Zagospodarowanie przestrzenne, rozumiane, jako zagospodarowanie terenu, w jego obecnym lub przyszłym wymiarze funkcjonalnym, lub przeznaczenie społeczno-gospodarcze terenu, w tym mieszkaniowe, przemysłowe, handlowe, rolnicze, leśne, wypoczynkowe, **wynikające z dokumentów planistycznych**)

1.1 Czy odnośnie aktualnych zasobów jako ewentualne zbiory danych przestrzennych powinny być rozpatrywane wyłącznie dokumenty typu: **Koncepcja Zagospodarowania Kraju** *), **plany zagospodarowania przestrzennego województwa** , **studia uwarunkowań i kierunków zagospodarowania przestrzennego** , **miejscowe plany zagospodarowania przestrzennego** ?

Tak __, Nie __, Trudno powiedzieć __

1.2 Czy wymienione kolejno, poniżej decyzje stanowią **źródło informacji o zmianach w zagospodarowaniu przestrzennym**?

a) Tak, przy czym należałoby rozpatrywać całą decyzję i wybrać z niej istotne dane przestrzenne: Tak __ Nie __ Trudno powiedzieć __

b) Tak, przy czym tylko załącznik graficzny powinno się rozpatrywać jako zbiór danych przestrzennych: Tak __ Nie __ Trudno powiedzieć __

– Decyzje o zezwoleniu na realizację inwestycji drogowej - wydawanej na podstawie ustawy z dnia 10 kwietnia 2003 r. o szczególnych zasadach przygotowania i realizacji inwestycji w zakresie dróg publicznych *);

– Decyzje o ustaleniu lokalizacji linii kolejowej - wydawanej na podstawie ustawy z dnia 28 marca 2003 r. o transporcie kolejowym ;

– Decyzje o ustaleniu lokalizacji autostrady - wydawanej na podstawie ustawy z dnia 27 października 1994 r. o autostradach płatnych oraz o Krajowym Funduszu Drogowym ;

– Decyzje o ustaleniu lokalizacji przedsięwzięć Euro 2012 - wydawanej na podstawie ustawy z dnia 7 września 2007 r. o przygotowaniu finałowego turnieju Mistrzostw Europy w Piłce Nożnej UEFA EURO 2012 ;

– Decyzje o zezwoleniu na realizację inwestycji w zakresie lotniska użytku publicznego w rozumieniu przepisów ustawy z dnia 12 lutego 2009 r. o szczególnych zasadach przygotowania i realizacji inwestycji w zakresie lotnisk użytku publicznego ,

– Decyzje o ustaleniu lokalizacji inwestycji w zakresie terminalu wydawanej na podstawie ustawy z dnia 24 kwietnia 2009 r. o inwestycjach w zakresie terminalu regazyfikacyjnego skroplonego gazu ziemnego w Świnoujściu ;

– Decyzje o ustaleniu lokalizacji regionalnej sieci szerokopasmowej - wydawanej na podstawie ustawy z dnia 7 maja 2010 r. o wspieraniu rozwoju usług i sieci telekomunikacyjnych, o ile jest to wymagane ;

– Decyzji o zezwolenie na prowadzenie obiektu unieszkodliwiania odpadów wydobywczych - wydawanej na podstawie ustawy z dnia 10 lipca 2008 r. o odpadach wydobywczych ,

– Decyzje o pozwoleniu na realizację inwestycji w rozumieniu przepisów ustawy z dnia 8 lipca 2010 r. o szczególnych zasadach przygotowania do realizacji inwestycji w zakresie budowy przeciwpowodziowych ,

– decyzje o lokalizacji inwestycji celu publicznego , decyzje o warunkach zabudowy , inne

1.4. Czy jednak Pani/Pana zdaniem, niezależnie od rozpatrywania, wyboru odpowiednich danych z ww. decyzji, włączanych ew. do IIP, powinny nastąpić w najbliższym czasie takie zmiany legislacyjne, które wykluczą ich wydawanie (przynajmniej większości)?

Tak __ Nie __ Trudno powiedzieć __ (proszę ewentualnie uzasadnić lub inne propozycje

2. Czy Pani/Pana zdaniem wszystkie tereny zurbanizowane powinny być objęte planowaniem tj. aktami prawa miejscowego?

Tak__Nie__Trudno powiedzieć__ (proszę ewentualnie uzasadnić

3. Proszę, ewentualnie (na odrębnej kartce dołączonej do ankiety) podzielić się doświadczeniem w zakresie problemów związanych:

a) z udostępnianiem danych przestrzennych przez Państwa jednostkę innym jednostkom publicznym,

b) z pozyskiwaniem danych przestrzennych przez Państwa jednostkę od innych jednostek publicznych.

4. Proszę, ewentualnie (na odrębnej kartce dołączonej do ankiety) podzielić się doświadczeniem, do jakich celów, zadań wykorzystują Państwo dane przestrzenne dot. treści planistycznych? Jakie dokumenty i treści planistyczne są wykorzystywane?

5. W jakiej postaci, Pani/Pana zdaniem, powinny być udostępniane ww. IIP, zbiory danych przestrzennych dot. Tematu Z. P.

a) Cyfrowej, rastrowej, zgodnie z obowiązującymi standardami: Tak__Nie__Trudno powiedzieć__

b) Cyfrowej, wektorowej, zgodnie z obowiązującymi standardami: Tak__Nie__Trudno powiedzieć__

c) W I etapie w postaci: rastrowej a następnie - wektorowej, zgodnie ze standardami: Tak__Nie__Trudno powiedzieć__

6. Czy związku z powyższym powinny być utworzone w kraju, regulowane przepisami: *Profil metadanych dla z. p.* i przynajmniej minimalny **standard zapisu udostępnianych treści pl.** każdego dokumentu planistycznego obejmujący: model danych, katalog danych, schemat aplikacyjny?

Tak__Nie__Trudno powiedzieć__

*) Proszę zaznaczyć wybrane, właściwe

Dziękuję za wypełnienie kwestionariusza

Wypełnioną ankietę uprzejmie proszę przesłać na adres: arch_bstelmach@op.pl Beata Stelmach-Fita

