

FIG WORKING WEEK 2019

22-26 April, Hanoi, Vietnam

Presented by the FIG Working Week 2019,
April 22-26, 2019 in Hanoi, Vietnam

"Geospatial Information for a Smarter Life
and Environmental Resilience"



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Fit-For-Purpose Land Administration System in Poland

Agnieszka Dawidowicz¹, Ryszard Żróbek², Elżbieta Zysk³

Institute of Geography and Land Management^{1,2}

Institute of Geospatial Engineering and Real Estate³

Faculty of Geodesy, Geospatial and Civil Engineering^{1,2,3}

University of Warmia and Mazury in Olsztyn, Poland^{1,2,3}

agnieszka.dawidowicz@uwm.edu.pl

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How important is LAS?

Land Administration System is the primary source of spatial information on real estate rights, restrictions and responsibilities (RRR) as part of spatial data infrastructure for the implementation of land policies and land management strategies that support sustainable development and management with the use of integrated public registers.

But what's the matter?



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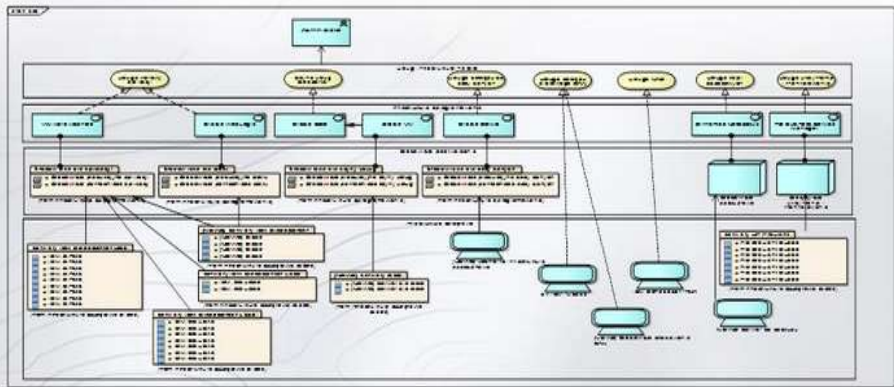
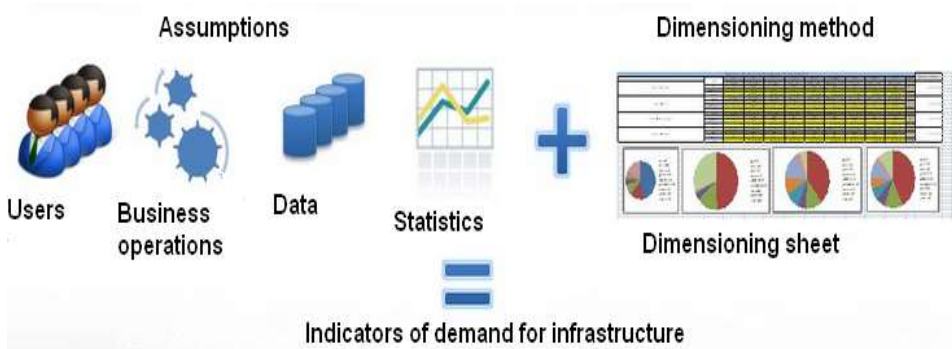
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Technical features of Land Administration Systems



- **cater to current needs and account for all levels of management and decision making,**
- provide comprehensive and valid information,
- provide information to recipients who need such data in a form that is suitable for direct use,
- data are valid, complete and appropriately processed,
- **enable the flow of data within the shortest possible time and in accordance with the organizational structure,**
- rely on digital methods to acquire, store, transfer and process data.

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Features of Fit-For-Purpose LAS

The LAS should be able to :

- meet the needs of local communities,
- increase the safety of real estate,
- effectively support sustainable land administration.



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Fit-For-Purpose LAS Approach

The LAS should be fit for the purpose, i.e. it should:

- **focus on the purpose** to be the most “fit” for achieving the purpose,
- be **flexible** to guarantee the highest degree of accuracy and to ensure that the legal and institutional framework caters to social needs,
- **incremental improvement** to modernized and improved over time to address social and legal needs and to take advantage of business opportunities.



Enemark, S., McLaren, R., & Lemmen, C. (2015). Fit-For-Purpose land administration—guiding principles. GLTN

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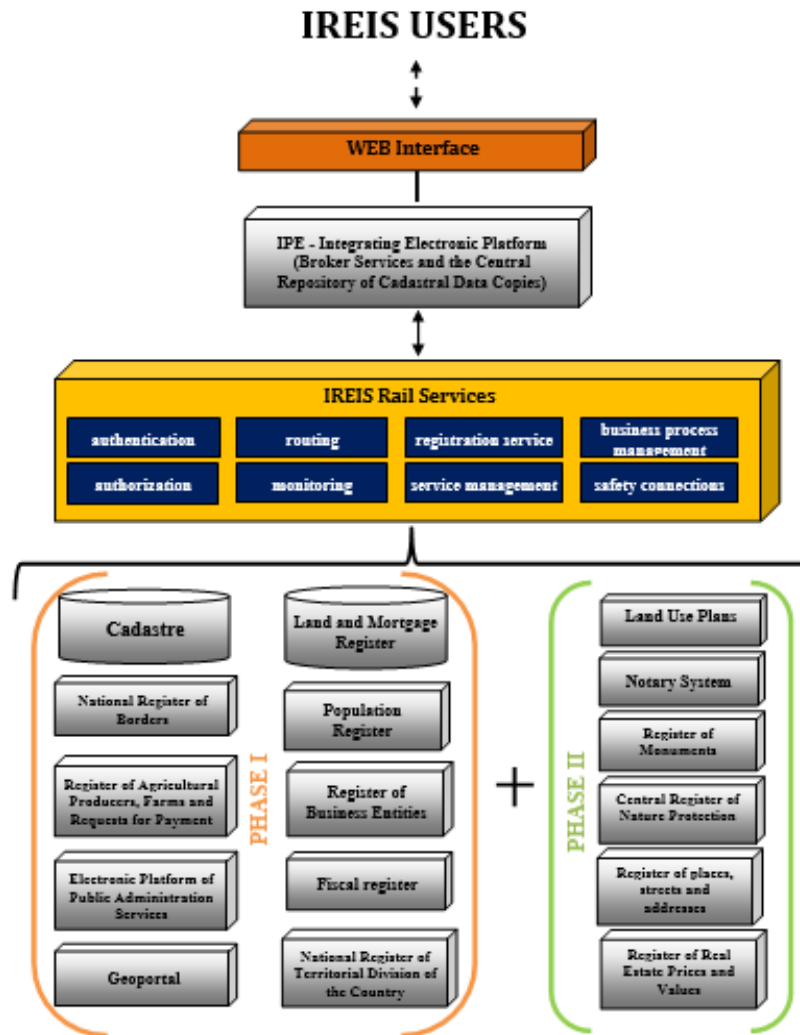
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Land Administration System in Poland as IREIS – Integrated Real Estate Information System



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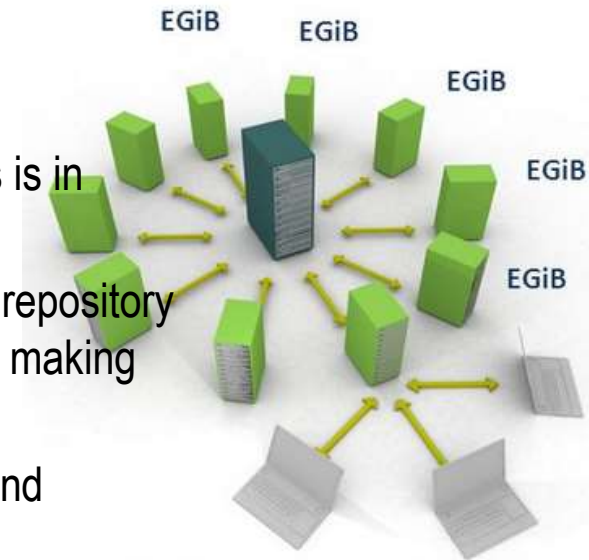
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The functionality of Polish IREIS

- 1) the exchange of data between the cadastre and other public records is in electronic form,
- 2) the tele-information system, used for the maintenance of the central repository enables recording, updating and safe maintenance of data files, and making them accessible in GML formats,
- 3) the software employed enables visualization of data and metadata and restoring of the history of particular spatial feature,
- 4) the software enables automatic notifications of data changes in the cadastre,
- 5) access to data takes place over the Internet,
- 6) procedures for data conversion and cadastral database updates is implemented by a set of applications,



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The functionality of Polish IREIS



- 7) data integration is carried by the Integrating Electronic Platform (IPE),
- 8) the data network consists of LAN and WAN,
- 9) an application for integrating descriptive data with maps are installed to transform the source database of the real estate cadastre into a modern cadastral database,
- 10) the employed tele-information system enables performing analyses of data files, which should concern, in particular:
 - monthly reports containing information on the number of buildings,
 - statistical analyses concerning the utilization of data stored in registers incorporated into the IREIS system,
 - analyses of coherence and quality of cadastral data files, spatial analyses.

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Additionally, the following e-services have been developed in Phase II IREIS:

- public access to information on **average transaction prices**,
- harmonization of public registers relevant for the registers incorporated into IREIS,
- evaluation of the integrity and coherence of cadastral data,
- processing of spatial data in the Central Repository in combination with the data in the registers relevant for other public registers incorporated into the IREIS i.e. **Land Use Plans, Notary System, Register of Monuments, Central Register of Nature Protection, Register of places, streets and addresses into the system**,
- transfer of selected data and information from notarial deeds into registers incorporated into the IREIS by means of standardized electronic documents.



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The key principles of the FFP approach

Spatial framework	Legal framework	Institutional Framework
<ul style="list-style-type: none">▪ Visible (physical) boundaries rather than fixed boundaries.▪ Aerial / satellite imagery rather than field surveys.▪ Accuracy relates to the purpose rather than technical standards.▪ Demands for updating and opportunities for upgrading and ongoing improvement.	<ul style="list-style-type: none">▪ A flexible framework designed along administrative rather than judicial lines.▪ A continuum of tenure rather than just individual ownership.▪ Flexible recordation rather than only one register.▪ Ensuring gender equity for land and property rights.	<ul style="list-style-type: none">▪ Good land governance rather than bureaucratic barriers.▪ Integrated institutional framework rather than sectorial silos.▪ Flexible ICT approach rather than high-end technology solutions.▪ Transparent land information with easy and affordable access for all.

Enemark, S., McLaren, R., & Lemmen, C. (2015). Fit-For-Purpose land administration—guiding principles.

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Comparison of IREIS determinants with the key principles of the FFP approach within the spatial framework

Spatial framework in the FFP approach	Spatial framework of the IREIS	Degree of consistency
Visible (physical) boundaries rather than fixed boundaries	Most land plots in urban areas have visible (physical) boundaries that are consistent with fixed boundaries. Fixed boundaries are predominant in rural areas. Plot boundaries should be regulated in accordance with geodetic standards. The status of land plots with unregulated boundaries can be easily fixed with the use of modern tools.	+/-
Aerial / satellite imagery rather than field surveys	Plot boundaries are determined based on the results of field surveys and aerial or satellite imagery.	+
Accuracy relates to purpose rather than technical standards	Accuracy relates to purpose and technical standards. Standards are developed for specific objectives. Objects such as plot boundaries and building contours are mapped with high accuracy to eliminate problems during planning, construction or expansion of the existing infrastructure. Another objective of high accuracy is to cross reference the cadastre with other information systems.	+
Demands for updating and opportunities for upgrading and ongoing improvement	The system is regularly updated and upgraded. Successive databases are being gradually implemented in the IREIS.	+
Total		3.5 (87.5%)



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Comparison of IREIS determinants with the key principles of the FFP approach within the legal framework



- IREIS contains all rights, restrictions and responsibilities (RRR);
- Legal flexibility applies to the Cadastre;
- Harmonization of the national legislation with EU laws, including interoperability sets and spatial data services

Legal framework in the FFP approach	Legal framework of the IREIS	Degree of consistency
A flexible framework designed along administrative rather than judicial lines	A flexible legal framework enables continuous system development	+
A continuum of tenure rather than just individual ownership	All rights, obligations and limitations relating to all types of real estate are registered. The changes resulting from legal amendments are archived.	+
Flexible recordation rather than only one register	Flexible recordation. The IREIS integrates many public registers which have been designed to exchange data. Therefore, data will be collected only once and will be exchanged.	+
Ensuring gender equity for land and property rights	The IREIS ensures gender equity for land and property rights.	+
<i>Total</i>		4 (100%)

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Comparison of IREIS determinants with the key principles of the FFP approach within the institutional framework

Institutional framework in the FFP approach	Institutional framework of the IREIS	Degree of consistency
Good land governance rather than bureaucratic barriers	The system has been created to support good land governance	+
Integrated institutional framework rather than sectorial silos.	Integrated institutional framework	+
Flexible ICT approach rather than high-end technology solutions.	The IREIS is a high-end system, which integrates many dispersed databases and part of the national Spatial Data Infrastructure	+/-
Transparent land information with easy and affordable access for all.	The system addresses the needs of public administration and provides the remaining users with access to certain types of data	+
	<i>Total</i>	3.5 (87.5%)



- IREIS is an open system.;
- IREIS data are collected by both state authorities and individuals;
- The public authorities are responsible for the integration of the registers in IREIS;
- The IREIS is available at all levels of public administration;
- The IREIS covers the entire country.

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Conclusions

- Fit-for-purpose land administration requires a system that can be flexibly adapted to current needs;
- The IREIS meets the FFP requirements because successive databases and functionalities are incorporated in stages to address new needs;
- The IREIS meets all of the evaluated criteria, including focus on the purpose, flexibility, ability to cover land tenure and land use, affordability, reliability in terms of information, attainability, and upgradeability with regard to incremental improvement.
- Developmental criteria and milestones have already been attained, but the FFP approach is still highly useful for evaluating the system's usefulness.
- Additional funds are required to harmonize and develop databases to ensure that the IREIS not only facilitates the performance of public land administration tasks, but is also accessible to individual users.

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Fit-For-Purpose Land Administration System in Poland

Thank You



Agnieszka Dawidowicz¹, Ryszard Żróbek², Elżbieta Zysk³

Institute of Geography and Land Management^{1,2}

Institute of Geospatial Engineering and Real Estate³

Faculty of Geodesy, Geospatial and Civil Engineering^{1,2,3}

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