

3D Land Administration: Current Status (2022) and Expectation for the Near Future (2026)

Eftychia Kalogianni, Peter van Oosterom, Christiaan Lemmen, Hendrik Ploeger (Netherlands) and Rod Thompson (Australia)

Key words: Cadastre; Digital cadastre; Geoinformation/GI; Land management; Legislation; Marine cadastre; Standards; Land Administration; 3D Cadastres; LADM; Worldwide Survey

SUMMARY

This paper refers to the creation or update, organisation and initial analysis of the results from the 4th FIG 3D Land Administration Questionnaire, as an activity of the FIG Working Group 3D Land Administration 2022-2026.

The questionnaire on 3D Land Administration is conducted as a successor of the previous questionnaire on 3D Cadastres, which has been conducted three times till today, by the Working Group in 2010, 2014 and 2018. The first, documented the status in 2010 and expectations back then for 2014. This was followed by the second questionnaire (status 2014 and expectations 2018) and the third one (status of 2018 and plans for 2022).

The completed questionnaires, per country are fully available via the participants' page of the 3D Land Administration Working Group website. The responses have been analysed and reported in various publications (van Oosterom et al. 2011, Karki 2013, van Oosterom et al. 2014 and Shnaidman et al., 2019).

The purpose of the survey that is currently being conducted and reported in this manuscript, is to make a world-wide inventory of the status of 3D Land Administration at the end of 2022 and the plans/ expectations for the near future (2026). All members/ countries of the FIG 3D LA & LADM WG have been requested to provide information about the following topics both regarding the current situation and the expectations/plans for 2026:

1. the 3D real-world situations that are being registered by 3D parcels;
2. the registration of infrastructure networks within the land

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administration;

3. the reference between the 3D properties and the constructions and apartment (condominium) buildings;

4. the coordinates;

5. the third dimension in terms of representation and registration;

6. the temporal issues in terms of representation and registration;

7. the RRRs and their registration at the LA system;

8. the structure and functionalities of the cadastral database;

9. the cadastral survey plans in terms of context and process.

By sharing this information, a comprehensive inventory will be created. It is expected that cooperation will improve, by learning from the different countries and jurisdictions, to support future developments in the field of 3D land administration.

This current questionnaire is backwards compatible with the previous three, while some questions have been refined for clarification and several new questions have been added at the end of the sections, introducing the topics of BIM in land administration, 3D land administration applications and implementation of the LADM. In this paper, results from the initial analysis of the responses will be discussed and the main conclusions from the analysis with the previous versions will be presented.

Note:

At the FIG Congress in Warsaw 2022 the new name of the FIG Working Group was discussed during the FIG Commission 3 and Commission 7 meetings. As a result of these discussion, it was decided to include LADM (ISO 19152, the Land Administration Domain Model) within the scope of the Working Group because of the close relevance and the related advances in the field. Therefore, the new name of the Working Group is “3D Land Administration and Land Administration Domain Model”; in short, “3D LA & LADM”.

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