

# Locating Property Boundaries by Use of Low-cost Technology and Available Public Datasets

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**Key words:** Cadastre; Capacity building; Low cost technology; boundary marking

## SUMMARY

This paper describes the use of low-cost technology for location of property boundaries in Norway. The Norwegian cadastral map is of poor quality in many areas. Information about boundaries and parcel identifications can be incorrect or missing. The nationwide cadastral database (with cadastre-map) was introduced following the cadastral law in 2010. In most countries with German Style cadastre, a cadastral surveying procedure legally defines the boundary. In Norway this is not the case! In Norway, even if a boundary is recently surveyed, the cadastral survey does not give guarantee that it is the correct and the legal boundary that is surveyed. This has the consequences that multiple boundary descriptions can be presented and get legal force, when uncertainty and disputes arise regarding the location of a boundary. All kinds of boundary descriptions and maps can be presented as evidence to court in boundary disputes. The Norwegian cadastral surveyor has no formal authority to determine the location of a legal property boundary. The role is to be an advisor or mediator between the parties when the boundary is unclear, and hopefully contribute to a clarification. In the Norwegian surveying procedure over existing boundaries, the landowners themselves play the central role. Thus, it is important to have tools that are fit-for-purpose to efficiently communicate with the landowners. This article presents a study investigating methods for making cadastral information available to landowners so that missing boundary point/monuments can be found and land parcels properly registered for land administration purposes. This study shows that the use of historic orthoimages in combination with modern DTM/DSM and imagery greatly supports the process of georeferencing old cadastral maps, and the identification of features defining the boundaries for land parcels. This paper also suggest that the concept of fit-for purpose land administration should be explored further as it is very much suited for the situation in Norway. Appropriate measures should be taken to simplify the regulations and procedures for establishing a recognized cadastral map fit for its purpose.

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