

The Possible Use of Pointclouds in a Land Registry System

Koen Huisstede and Tom Wortel (Netherlands)

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SUMMARY

The Dutch Land Administration Office, named Kadaster, investigates the possible use of point clouds in the process of determination of parcel boundaries. The current process has a number of limitations. The most important of which is the lack of transparency for the stakeholders. This lack of transparency leads to a lack of understanding of the process and could lead to a believe that legal certainty is at stake.

The hypothesis is that the use of point clouds can result in a better understanding of all participants in the process. The trust in legal certainty will increase, and stakeholders will feel included in the process of parcel boundary determination.

With a combination of terrestrial LiDAR scans, airborne LiDAR scans and photogrammetric point clouds, a digital twin of the physical situation is created. We experiment with this digital twin in the interaction between parties (citizens and employees of companies) to determine the location of new parcel boundaries. In order to keep the process as simple as can be, interaction takes place in a web-app specifically designed for this process. In this paper we present the intermediate results of this ongoing research.