Measuring Data Quality of Cadastral Data

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SUMMARY

Data quality is a topic with many dimensions. One of these can be quality, for instance, seen from the perspective of one single user or for digitisation of a process. Or it might be the need for accurate data or data completeness. Other dimensions could be the need for available and relevant data. The cadastre is one source of data that can be of great importance in land management and development. The issue we want to address is that the cadastre is not of the calibre to fulfil its purpose as part of the land registration system in a digital world and play a key role in land management.

The Norwegian cadastre is a mixed dataset, collected over hundreds of years and under various legislation. Over time, the need has arisen for new data fields in the data matrix. This has led to varying quality among cadastral units and the buildings belonging to them. How should this be dealt with? One way is to accept that total control of data is impossible. It has been said that, when working with data, total control is impossible due to the extreme complexity of distribution and the pace of change. We must accept "data disorder", which means, among other things, variability of data quality. An analysis in Norway from 2019 concluded that collecting all the cadastral data that is missing, or "not good enough" given a specific standard, would take 20–50 years at the best estimate, and we cannot be sure that the quality we define today will be suitable for tomorrow's demands. We need a strategy for data quality, and it must involve all parties who use and providing cadastral data.

The aim of this paper is to answer and shed light on three questions:

• Why do we need to measure the data quality of cadastral

data?

• What is a useful definition of data quality regarding cadastral data?

• How should the data quality of cadastral data be measured?

The methods used are literature study, workshops and hypothesis testing. Involving users and professionals has been important, connecting with them through workshops and involving them in the “Masterplan Cadastre” project.