

# Rebuilding the Cadastral Map of the Netherlands, the Overall Concept

Eric Hagemans, Ruben Busink, Frank Schouten and Jeroen Grift (Netherlands)

**Key words:** Cadastre; Digital cadastre; Positioning; cadastral map, communication, geometric quality, automation

## SUMMARY

The Dutch Cadastral Map does fit the designed goal; it is a complete and topologic correct index to the cadastral registration. However, the so-called graphic quality of about half a meter don't seem to be enough in a future where people want to zoom in and establish the exact location of their boundaries themselves. The related uncertainty of the parcel size is also becoming a problem.

After a market survey, we started a research project in 2017 where many different aspects (legal, communication, geodetic, organizational, etc.) were studied. The focus however was on the most critical aspect: the question whether the millions of field documents could be read automatically.

Two companies realized a proof of concept in which they proofed that it is possible but not for 100%. We continued by contracting experts from both companies who, together with our own staff, succeeded in building a prototype that is able of both reading the documents and connecting together to a new geometry of a cadastral map. In the solution artificial intelligence is widely used.

As we speak we are in the middle of a pilot project in which we will produce about 5 to 10 thousand documents to a new cadastral map geometry in order to get decision support information. We are already busy preparing a new infrastructure to store the new geometry called reconstruction map (not yet being the current cadastral map). To coach the public in using the current and new map properly communication plays a key-role and for that we already show more metadata about the geometric quality in the current map.

The legal and communication aspects are being examined. We develop an introduction process with public awareness campaign and legal answers to difficult questions with the change of parcel sizes as the most delicate one. Also the concept of do-it-yourself reconstruction is developed. Because we

are moving from research to decision making also the benefits of society are being described.

---

Rebuilding the Cadastral Map of the Netherlands, the Overall Concept (10521)  
Eric Hagemans, Ruben Busink, Frank Schouten and Jeroen Grift (Netherlands)

FIG Working Week 2020  
Smart surveyors for land and water management  
Amsterdam, the Netherlands, 10–14 May 2020