

# Smart Surveyor for Property Assessment

Luc Hermans, Ruud Kathmann and Marco Kuijper (Netherlands)

**Key words:** Geoinformation/GI; Property taxes; Valuation; GIS analyses

## SUMMARY

The annual assessment of real estate is a municipal responsibility in the Netherlands. To put this in perspective, 355 municipalities are responsible for the assessment of over 9 million residential and non-residential real estate properties. The assessment industry in the Netherlands is to this day heavily reliant on spreadsheet thinking which is at least remarkable due to the spatial nature of real estate and thus to the fact that the mass appraisal process primarily uses geographical data.

Current legislative and juridical developments are driving the municipalities to move away from the spreadsheet thinking towards a more geospatial way of thinking. One of these developments is the juridical decision to exempt the core zone (or formal maintenance zone) of dyke bodies from real estate taxation. These dyke bodies are often part of privately owned, often residential properties.

To identify the affected real estate properties for this exemption, in a short period of time, the use of geographical information systems became a more mainstream practice in the Dutch assessment industry. As a result of this development tax departments of municipalities were (more or less) forced to work together with the GIS-departments, or to hire GIS-knowledge from private companies.

The Netherlands Council of Real Estate Assessment sees this development as a good gateway towards a broader use of geospatial information and geographic information systems in the assessment industry. The use of GIS in real estate assessment has a wide range of possibilities such as data gathering (for instance distance to important facilities or orientation toward the south), data quality control (unexpected differences in building year for adjacent houses) and more ambitious implementations such as the incorporation of spatial statistics in automated valuation models.

The proposed paper will discuss how geospatial data and information systems are used in the Dutch assessment industry at this point in time and it will address possible avenues of further development and applications within the assessment industry. Furthermore it will discuss how legislative and juridical decisions can be a driver for increased use of geospatial ways of thinking.

---

Smart Surveyor for Property Assessment (10425)  
Luc Hermans, Ruud Kathmann and Marco Kuijper (Netherlands)

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