

Improving Quality of the Key Registries with 3D Building Information Models and Linked Data

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SUMMARY

In The Netherlands there are 10 key registries, the Netherlands' Cadastre, Land Registry and Mapping Agency (in short Kadaster) is the source holder for two of them and is for three other key registries responsible for integrating the data into one registry as there are multiple source holders. The key registries in the Netherlands make it possible to improve the efficiency of the Dutch government and enable implementing the 'only once' principle (EU e-government objective).

For the key registries to serve as the single source of information a high data quality is of utmost importance. Therefore multiple measures are in place to ensure that source holders provide information of high quality and assess which part of their dataset might be improved. One measure for the key registry addresses and buildings is a quality dashboard that indicates the quality of the data of each municipality and provides a way to compare the quality to other municipalities.

In our paper we will discuss this successful method for improving the quality of key registries. We will however more extensively discuss new possibilities for improving the data quality by using 3D building information models (BIM) and Linked Data in the processes of municipalities that we worked on in a showcase project. In the project we have shown that 3D Building information models combined with Linked Data can provide a way to automatically fill quite a big part of the necessary information in a number of key registries. By automatically filling the key registries the data quality is further improved. It makes the registries even more useful within and outside the government. All efforts to improve the quality of the key registries not only improves the government but also helps commercial companies to continue growing their business without the need to create their own registry.

Furthermore our paper will also discuss how using 3D BIM might also improve the efficiency of

the planning permit process and giving less rooms for errors both at the side of the municipalities but also at the side of contractors and architects. We expect the efficiency to save time and therefore money for the municipalities, and most probably it will also have a positive impact on the data quality.

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