

Workflows for Ensuring Consistency of Cadastral Data

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SUMMARY

Cadastre is the essential land register and the basis for many services in the area of land administration and land management. Although European parcel based cadastral system is used in many countries, differences in business processes between countries exist. Through a long period of time these differences have been adapting to development of technology, legislation and other conditions within a certain country. With the development of information technology, business processes have been partially improved. This means that certain operations were improved but the business processes were still adapted to the analogue way of thinking. Database management systems (DBMS) enable the storage of data into a digital, structured format. Databases operate using transactions which are meant to be short. With the development of technology the business processes became more and more complex, resulting in a strong requirement to enable long duration of transactions. Various advanced transaction models were developed in order to fulfil this requirement, but with limitations. In order to mitigate these limitations workflow management systems (WFMS) were developed. WFMS provide flexibility and a modular design which enables covering of wide range of possible applications. WFMS's are mainly investigated in the area of non-spatial data. Although there are some possible solutions for basic maintenance of spatial data, it would not be possible to implement these solutions to cadastral data. Cadastral data have several layers of complexity due to the fact that they have legal and spatial component, various external stakeholders may impose some restrictions on cadastral data, etc. In this paper we present an introductory research on the subject of modelling of business processes in cadastre and establishment of cadastral workflow management system.