Digital Geodetic Elaborate System (SDGE)

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SUMMARY

The digitalization of public administration has been one of the key objectives of Croatia as the member state of the European Union. There are already many digital services published from public authorities towards citizens and external stakeholders, but there are few or no web services at which external stakeholders (private companies authorized for specific area) are directly involved in maintaining official registers. One of the first systems in Croatia that allows direct involvement of external stakeholders in the process of maintaining and updating official registers is Digital Geodetic Elaborate System.

Digital Geodetic Elaborate System (SDGE) is a modern Web GIS application that provides geodetic contractors/surveyors full support in creating and self-control of geodetic elaborate using digital solution. It is based on Web GIS technologies to make it accessible to the entire geodetic community in Croatia via the Internet using a basic Web browser.

SDGE system supports the entire process from digital spatial data download, geodetic surveys data preparation and submission to digital examination and validation via Web portal. The main functionality of the SDGE application solution is to provide a quality control tool for the purposes of creation and controlling of digital geodetic elaborate. With its range of functionality as well as web services integrated with other external systems, SDGE is revolutionary central digital solution in the daily work of the geodetic community in Croatia.

SDGE is connected to external systems by web services that provide data, official documents, and processes in the creation of DGE.

SDGE has implemented automated controls that ensure the integrity and validity of the graphical

part of DGE (spatial datasets). The controls ensure the geometric, topological and attribute validity of the graphical part of DGE, as well as the current and proposed new state of the geodetic elaborate, and the consistency between the current and proposed new situation in cadaster. In case of determined inconsistencies, the SDGE generates a quality control report containing the list of inconsistencies and their exact georeferenced position. Based on these reports' users can make their geodetic elaborate consistent with the valid legislative through iterations.

Considering that today, two years since system integration, more than 75% of all elaborates in Croatia are processed and submitted digitally trough SDGE, the tendency is to reduce the number of analogous elaborates to a minimum.

Given the economic potential of a real estate market, SDGE became one of the indispensable links in the chain of access to geodetic data, implementing changes to spatial data via web and updating national real estate cadaster database. System availability and stability, ease of use and intuitive user experience are factors that contribute to the rapid growth of system usage. The high level of interoperability of the SDGE system requires continuous upgrading in order to further develop support to the process of DGE in accordance with updated legal regulations and the needs of end-users determined through Customer Support.

SDGE is the best example of a successful digital transformation of a complex business process that directly affects the economy in Croatia.