

Geological Modelling at the Croatian Geological Survey

Nikola BELIĆ^{1,*}, Andrew NEWELL², Snježana MARKUŠIĆ³, Tvrtko KORBAR¹, Marko ŠPELIĆ¹, Marko BUDIĆ¹, Vlatko BRČIĆ¹, Krešimir PETRINJAK¹, Dea BRUNOVIĆ¹, Ozren HASAN¹, and Pavle FERİĆ¹

¹ Hrvatski geološki institut – Croatian Geological Survey

* Corresponding author: nbelic@hgi-cgs.hr

² UKRI BGS – Natural Environment Research Council, British Geological Survey

³ Department of Geophysics, Faculty of Science, University of Zagreb

Abstract

Geological modeling at the Croatian Geological Survey is a developing discipline. In the past few years, a number of geological models were made, mostly for internal use, or as a training result for the ongoing projects, primarily GeoTwinn and Geosekva, while others were built for the purposes of scientific publication. This review will give several examples of selected geological models developed during the past few years period. It will also list different types of geological models and needed typical input data, and give a basic workflow for model building. Geological modeling requires acquisition of different spatial surface and subsurface input data, including primarily digital elevation model – DEM (or similar), different base maps, and other spatial data containing various geological information. Besides the resulting geological model, in the model building process, a whole series of resulting maps and other cartographic outputs are developed.

Keywords: geological modelling, spatial data, maps, DEM, geological data