Urban Development Simulator: An interactive decision support tool for urban planners enabling citizen’s participation.

ABSTRACT
The simulation tool is developed for the city of Ruse in remote northern Bulgaria at the Romanian border as a support for the local urban planners and politicians to evaluate high level planning decisions defined as use cases. The tool enables urban planners to estimate the impact of different urban development scenarios and visualises spatial changes through dynamic GIS maps depicting the results of the simulations. It is based on the analysis of geospatial data and uses an Agent-based modelling approach to simulate the development in the city. While other urban development simulation tools usually model urban growth in the urban fringe, the Urban Development Simulator concentrates on intra-urban development, as the City of Ruse turns out as a shrinking city which is starting to recover since the last years – reorganizing the intra-urban structure.