

Adding Value on Geospatial Data Infrastructure with CommunityViz Future Growth Scenarios of Local Communities in Suburb of Warsaw, Poland

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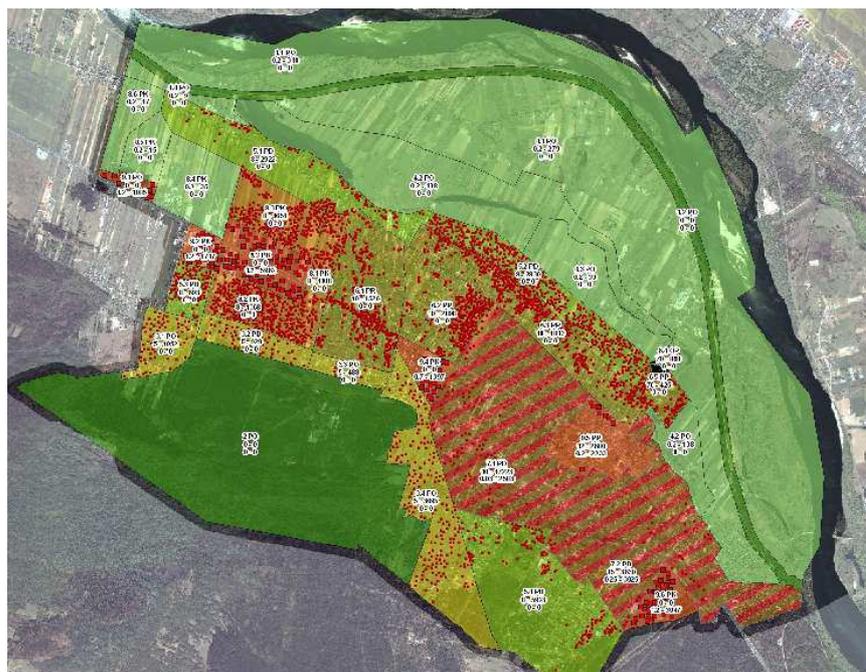
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1 ABSTRACT

Community of Łomianki is located 25 kilometers northwest from the center of Warsaw Metropolitan Area over the bank of Vistula River. Neighbourhood of Kampinoski National Park wildlife habitats and the landscape compose healthy environment that attracts new residents. Community has experienced dynamic residential real estate development over past 12 years, the population increased by 50% up to about 26000 people.

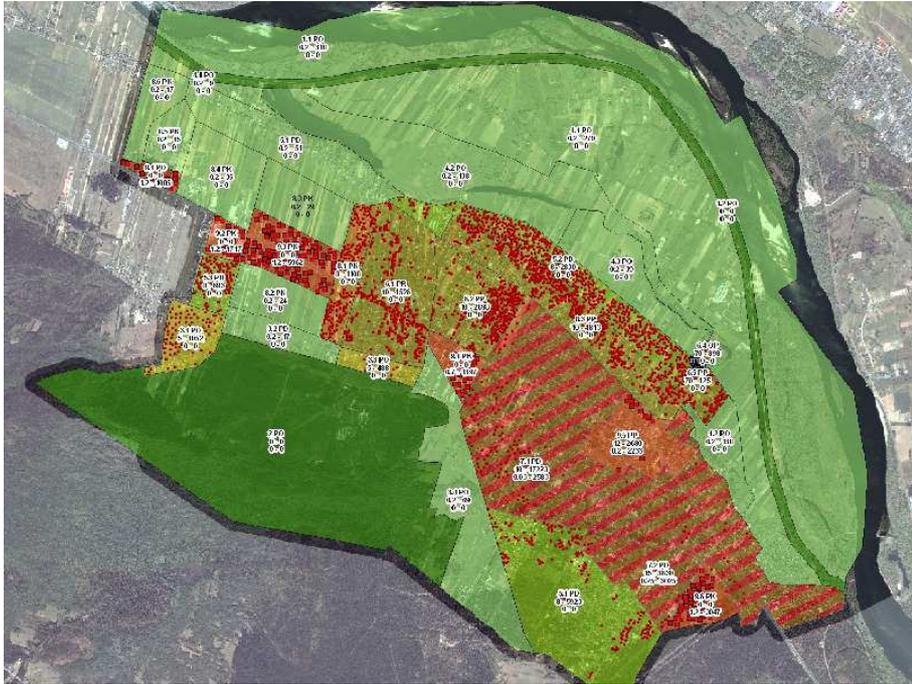
Łomianki is not purely residential community but also known location of many little craft firms so it's urban fabric a mix of some commercial development concentrated along a highway and surrounding residential areas of various densities.

Łomianki hired Centre for Spatial Management, a consulting firm in Warsaw, to envision potential strategies of development. The part of that project was to define three alternative growth scenarios. The first scenario reflected development under current growth plan. The second scenario reflected more conservative approach focused at on reduction of some undesirable effects of development. The third scenarios called “defensive” was aimed at bridging “local infrastructure gap” In this scenario, development was concentrated and it's density was increased by transferring growth from open-space areas.



On a base of existing GIS system storing , cadastral landuse information, environmental data and zoning regulations Centre for Spatial Management used CommunityViz® software to define spatially scenarios of future growth. As a result interactive “game” combining both spatial and non-spatial assumptions (possibly similar to SimCity) could be used during public discussions on development strategies. Citizens and decision-makers engaged in the planning process could explore and modify alternative growth scenarios, anticipating “on the fly” potential impacts of land-use decisions as well as challenging planning assumptions. The set of indicators that were used was centered around issues of build-out capacity under different zoning regulations, environmental protection; community budget, cost of infrastructure, access to affordable housing and solid support of future economic development.

CommunityViz turned out to be powerful educational tool for both decision-makers and the citizens of Lomianki. They could incorporate specific local values and goals into the planning process and gain better understand of the complexity, difficulties and impacts of land-use issues.



CommunityViz is a GIS based tool that allows to bulid easily added value on existind data infrastructure. We found it to be very productive in domains of “hard” analysys and calculations, “soft” mediation and argumentation, as well as “symbolic” inspiration based on local values what makes it usable for both short-term and long-term perspectives.

We would like to present you how suprisingly that tool can become the method planners and communities use on public settings.