

## Alternative Spatial Delimitation Model for Polycentric Metropolitan Areas: A Case Study of Metropolis GZM\*

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### Abstract

This paper presents an alternative model for area delimitation, using the Metropolis GZM region as a study area. The analysis is based on data available in the region's strategic documents. Ward's method, an agglomerative clustering approach, served as the primary method for delimitation, with preliminary statistical processing applied to the data. The findings partially contrast with the methods currently employed in urban practice for delimiting the Metropolis GZM area, which typically classify regions as core cities and other municipalities. These results will form the basis for assessing the fit of multiple regression models for Metropolis GZM and comparing the findings with previous analyses. This work thus constitutes the next stage in an ongoing research project on area and functional delimitation as a determinant of the effectiveness of transport policy in polycentrically dispersed urban regions.

**Keywords:** Polycentric Metropolitan Areas, Spatial Delimitation, Ward's Method, Metropolis GZM