

## **Title: Evolution of spatial structure in urban regions in Poland**

The history of interest in polycentricity has started in the first half of the 20th century and based on the classical approach to the city and urban region as a monocentric structure. American city was the model for this approach, where economic activity was concentrated in the core and rapidly decreasing in the hinterland. Since the 1940s it has been noticed that the development of this activity occurs not only in one core, and since the 1970s became clear that polycentric urban development is a model which better explain the changes in the spatial structure of urban regions. Urban regions are no longer nodal and their development is multi-core – polycentric.

Polycentricity is not only a concept synonymous with a multi-centre urban region, but also allows to measure the spatial structure of a region and its changes. The polycentricity understood in this way can be examined from the morphological (relating to the distribution economic activity in space - e.g. workplaces) and functional point of view (relating to the directions and size of flows - e.g. commuting). According to this concept, urban regions can have different types and stages of polycentric development. Our investigating of polycentric urban development in Poland is in the line to the currently studies in Western Europe or China. **Our research task is innovative in many aspects.** First of all, polycentric urban development studies in Poland are practically not undertaken and the spatial structure and its changes are not well recognized. **The complexity of our research is innovative on an international scale.** Previous research deals with chosen aspects of polycentricity or conducts on a small spatial scale (e.g. in one urban region). **Another novelty on an international scale of the project is our attempt to explain the factors of diversity.** We are convinced that our research will allow us to open new paths of research of urban regions in the world, and will also allow us to show similarities/differences in the development of polycentricity in Poland and other countries and regions of the world. They will help to better understand the processes taking place in contemporary urban regions.

Taking the above arguments into account the aim of this project is 1) to investigate the evolution urban regions in Poland in different scale (inter-urban and inter-regional) and different time periods (mainly during the transition from mature socialism to mature capitalism: 1974-2016); 2) to explore the effect of the initial form and demographic and economic developments on the heterogeneity in the dynamics of polycentric urban development; 3) to identify mechanisms which determining the dynamic of changes in the level of polycentricity.