Względność i efektywność zmiany dostępności potencjałowej a koszty budowy nowoczesnych systemów infrastruktury transportowej (RECiPA)

Termin: 2019-01-24 - 2023-01-23

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(projekt OPUS)

The project objectives can be divided into cognitive, methodological and application-related ones. The main cognitive objective of RECiPA is to complete a theoretical (settlement structure model) and empirical (selected European countries) analysis of the relativity of change in accessibility depending on the settlement structure, stage-based development of the transport network, and the travel length (forms of distance decay). The methodological objective is to propose a methodology for researching (a) the effectiveness of change in accessibility in terms of the input/effect ratio, i.e. relationship between the construction cost and change in nationwide potential accessibility, also relative to the structure of the settlement network and the staging of the development of a modern transport network; (b) the relativity of change in the overall nationwide level and regional disparities between potential accessibility – a change understood primarily in the context of the travel length depending on the structure of the settlement network and the staging of the development of a modern transport network. The key role will be played by the model of a state based on the central place theory, which can be used for a multi-variant analysis of the influence of the differentiation of the settlement network and the staging/phasing of infrastructure development, on change in accessibility and the cost of such change. The methodological and application-related objective will be to prepare a range of variants for analysing the phenomenon of the effect of the settlement network and staged infrastructure development on change in the national level and regional differentiation of potential accessibility, using the example of selected European countries with various advancement of the investment process, with the choice of Spain, France, Germany, Romania and Poland. The empirical analysis will be completed in the cartographic form (ArcGIS software) based on simulations made, with the OGAM application. The project will present options for refining the analysis methodology, mainly by studying changes based on sufficiently long time series (monitoring changes in potential accessibility) and recommendations for transport policy-making in terms of its efficiency (input/effect ratio).

Publikacje

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- Rosik Piotr, Komornicki Tomasz, Goliszek Sławomir, *Pomianowski Wojciech*, *Stępniak Marcin*: Multimodal evaluation of changes in national potential passenger and freight accessibility during the EU-driven big push to transport infrastructure. - Sustainability 2022, 14 - s. 10044.
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