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## **Contemporary Polish suburbs in view of the sustainable development concept**

PhD Thesis summary

Keywords: sustainable development, suburban zone, suburb, sustainable suburb model, retrofit, human needs

This dissertation was aimed at developing an ex ante, conceptual model of a sustainable suburb and verifying its validity. The theoretical aspect was related to linking the retrofit (retrofitting suburbs) concept to European state of art and to the author's ex ante model. The research on the link between existing, dispersed suburbs and sustainable development remains underdeveloped.

Suburbanisation couldn't be curbed in a short time as suburbs became home for millions of people. The dwellings meet many categories of human needs, including physiological (the need of shelter) and safety needs (people want to experience order, predictability, and control in their lives) (Maslow 1964).

Because suburbs developed in Poland are commonly perceived as unsustainable, it is important to answer the question: is it possible to attain sustainability in these forms of residential areas, especially in spontaneously developed areas of self-built housing? Subsequently, how would low-density suburban zones be converted to denser, spatially coherent, liveable communities in specific Polish conditions?

My conceptual ex ante model, based on abundant literature about contemporary town-planning concepts, consists of 3 types of criteria:

- 19 general criteria,
- 30 specific (measurable) criteria, divided into 6 groups: basic attributes of the settlement; development concentration, spatial structure and urbanistic composition; forms of development; functional structure and functional mix; development of transport and green areas; communication links and sustainable mobility
- Descriptive criteria – aimed at identifying characteristics of each settlement.

The model was then applied to several case studies. In its empirical part this dissertation is based on four case studies of suburbs neighbouring big cities but also small towns: Osada Leśna (near Poznań), Osiedle Książenice (near Warsaw), Osiedle Moczkowo (by Barlinek) and Czołowo-Kolonia (by Koło). Cases were selected according to replication logic (Yin 2015) in order to show diversity of the subject studied.

The thesis also has an application context. Solutions to reorder / retrofit and thus achieve the higher levels of sustainability of suburbs were suggested, with reference to the sustainable development concept – a contemporary paradigm of development policies, aimed especially at optimal human needs fulfilment, along with retaining natural resources and economic effectiveness.

The thesis consists of eight chapters, lists and appendixes. During the research, several quantitative and qualitative methods were implemented (mixed method design - Creswell 2013). The four case descriptions were derived from insider knowledge, 235 surveys, in-depth interviews, numerous analyses, maps and calculations, and based on sustainable suburb

models and widely known research methods like G. Tachieva's *Sector mapping* (Tachieva 2010).

The empirical component of this dissertation gave the opportunity to verify some theoretical positions and indicators.

The dissertation's aims were achieved. As a result of the study carried out, the diversity of particular suburbs in terms of sustainable development (and the designed sustainable suburb model) was revealed. The research stated that in some cases, achieving higher levels of sustainability is not possible and such cases should be a concern of public policy. Differences between theoretical concepts and practice of foreign provenience, and the situation in Poland also emerged. There aren't any universal methods of retrofitting suburbs, and faults of those entities should be corrected as soon as possible.

Options for improving the standard of living in dispersed suburban areas include the development of local services, local food and energy production and site multifunctionality.

In conclusion, complex planning and realisation according to plans does not assure sustainable development if appropriate settlement dimensions aren't provided.

Translation of many specialist English terms to Polish was a an additional result of conducted research.