

INTRODUCTION

The transformational processes affecting industrial spatial structures are determined by various factors and conditions. They are reflected in the quality and intensity of internal and external impulses, internal relations among enterprises, and the changing surroundings (local, regional, national, European and global environment) which are shaped by the progressive civilizational development. The complex processes of civilizational development in the field of industrial spatial structures formation are visible e.g. in technological progress, organizational improvement, innovations of the existing products and the appearance of new ones, or the changeability of the capital environment. Industrial spatial structures are the effect of location and development of production of diverse industrial enterprises, shaped by microeconomic rules. Their development to a large extent depends on the internal relations holding between particular firms, formed by mesoeconomic factors. Relatively to the strength of functional connections and the potential of enterprises, the spatial structures include a number of different forms of industry concentration, from dispersed industry, through districts, centres and agglomerations to industrial complexes or recently distinguished clusters.

Industrial spatial structures do not function in isolation, but are strictly connected with their environment (e.g. market environment, supplies or labour resources), which, depending on their nature, can vary in range from local to global. Thus the environment plays an important role in shaping the industrial spatial structures, through impulses of all kinds, which operate in the form of changing active and passive relations.

It must be assumed that the basic elements of industrial spatial structures are enterprises. As a consequence, the process of industrial spatial structures formation is affected by the behaviour of and relations between enterprises functioning in the area. In changing surroundings, and influenced by changing intensity of various internal and environmental factors, particular enterprises may display various tendencies, which may, in turn, influence the functioning of the whole industrial spatial structure.

Enterprises may be characterized by:

- systematic development of production, associated with manufacturing the current product or its enhancement with the help of new technologies, or with eliminating the current manufacture and introducing a new one;
- stagnation in production growth, with manufacture of either the same or new products;
- recession, noticeable e.g. in a decrease in the scale of production;
- disappearance of enterprises, resulting from inability to adapt to the new, competitive-market conditions (e.g. difficulties concerning the change of production process or the range of final products) or from pathological activities, such as fallible management or flaws in carrying out ownership changes;
- appearance of enterprises of a new type, connected with the progressing civilizational development (e.g. IT firms);

The articles presented in this volume belong to these main research fields, covering the topics of: formation processes of regional industrial structures, transformational processes of selected industries on a national and global scale, formation processes of industrial enterprises, influence of direct investment on shaping the industrial structure of special economic zones, and problems of relations between the industry and the educational activities. All papers presented here to some extent exemplify the outlined tendencies in transformations of industrial spatial structures.

An attempt to determine the overall process of industrial spatial structures formation is contained in a model concept which presents different variants of enterprises' activity, which, in turn, influence certain tendencies in the process of industrial structure transformation (Z. Ziolo). Partial examples of a model approach are the presentations of transformations of the industrial spatial structure in the Slupsk subregion (P. Czapliński), and of the industrial structure change of Szczecinek and Lębork (P. Szmielińska-Pietraszek, W. Szymańska).

Regional industrial structure is shaped in result of historical processes, which is illustrated by the formation of French industrial regions (S. Dorocki); it is also influenced by the contemporary globalization processes (S. Sala), which in various degrees affect the directions of economic changes, frequently leading to their recession (P. Maśloch, M. Czwartyńska).

The generators of industrial spatial structures transformation are particular types of production, which form the base of national economy, e.g. the energy or fuel industries (A. Wieloński, J. Machowski, W. Gierańczyk), are marked by growth tendencies, e.g. the automobile industry (K. Wiedermann), search for a new position in the market or are in the state of recession (K. Dajczak, M. Niemczak).

Economic development imposes new rule on particular types of enterprises, to which they adapt in different degrees; some of them alter their functions (J. May), some other reinforce them, as a result of new investments (R. Repetowski). The example of Honda points to the significant role of international corporations in shaping the global industrial structure (W. Kilar, M. Cieluch).

Industrial spatial structure formation is also strongly influenced by the economic decisions concerning the areas of special economic zones (M. Smętkowski), which provide advantageous conditions for the inflow of national and foreign direct investments (P. Brezdeń, W. Spallek, M. Huculak).

In the period of growing informatization, the function of economic base will be increasingly taken over by science and education. This problem is partly addressed by the authors of the analyses concerning the academic institutions preparing the industry staff for the Podkarpackie voivodship (M. Borowiec) and of the analysis and evaluation of the industrial geography contents in secondary schools syllabuses (M. Tracz).

The presented papers discuss only selected aspects of the complex process of industrial spatial structure transformation. Therefore we encourage researchers to investigate these multifaceted problems more deeply. In that way, we shall contribute to better understanding and raising the position of industrial geography in the area of research and problem solving focused on the modification of industrial structures of different scales.

We shall be grateful for all remarks and suggestions concerning the presented papers and for proposals of new research problems in the field of industrial geography.

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