Summary: Contemporary economy can be characterized by a simultaneous lack of space, growth of international exchange, growing importance of international corporations and internationalization of financial phenomena, which is undoubtedly favoured by the development of IT techniques. At the same time, along with the development of the knowledge-based economy as a new economic paradigm, the importance of the so-called spatial development increases in the development of spatial units, new factors that primarily include the quality of human capital, specific ICT infrastructure and the quality of business environment institutions. Territorial units must behave flexibly and be part of new trends. The article presents loose considerations on contemporary socio-economic conditions affecting the development of local and regional systems.

Keywords: local development, regional development, modern economy.

Streszczenie: Współczesna gospodarka to równoczesny nie mający w historii miejsca, wzrost wymiany międzynarodowej, rosnące znaczenie korporacji międzynarodowych oraz internacjonalizacja zjawisk finansowych, czemu niewątpliwie sprzyja rozwój technik IT. Równocześnie wraz z kształtowaniem się gospodarki opartej na wiedzy jako nowego paradigmatu gospodarczego, w rozwoju jednostek przestrzennych wzrasta znaczenie tzw. nowych czynników do który przede wszystkim zalicza się jakość kapitału ludzkiego, specyficzną infrastrukturę teleinformatyczną i jakość instytucji otoczenia biznesu. Jednostki terytorialne muszą zachowywać się elastycznie i wpisywać w nowe tendencje. Artykuł prezentuje luźne rozważania nt. współczesnych uwarunkowań społeczno-ekonomicznych wpływających na rozwój układów lokalnych i regionalnych.

Słowa kluczowe: rozwój lokalny, rozwój regionalny, współczesna gospodarka
1. Introduction

Contemporary economy is at its unprecedented growth in terms of international trade exchange, the increasing importance of international corporations and the internationalization of financial phenomena, which is undoubtedly supported by the development of IT techniques. These transformations altogether result in the acceleration of globalization which according to Thomas L. Friedman is guided by its own logic, shaping the contemporary world in all its sections. According to this author, the ability to achieve a healthy balance between a Lexus and the olive tree is now a test for people. In his view, a country without a Lexus will never go far, because this is precisely what accelerates the economy, increasing the dynamics of its development. Furthermore, a country without a healthy olive tree will never have enough sense of security to fully open itself to the world to bring out the elements of globalization that will benefit it [Friedman 2001, pp. 5-15]. As a consequence, an attempt to reflect the character of this process can be repeated after A. Giddens who states that it is a diverse and complex set of phenomenon, often of an opposite nature, which results in conflicts which in turn translate into new divisions and new forms of social stratification. This tendency to divisions is, consequently, the basis for nourishing local and regional nationalisms that respond to rising uncertainty and increasing vulnerability [Breliński, Oleksiuk 2008, p. 28]. On the other hand, M. Holko points out that “the liberalization of the process of globalization (from the 1970s) constituted a shock for the unprepared countries but also a great chance for success in developed countries (such as Japan, Korea or China)” [Holko 2015, p. 18].

Looking at the above phenomena through the prism of space it should be pointed out that space gets to accumulate various phenomena and processes, often opposing or even mutually exclusive. The paradox of the 21st century is that the astonishingly increasing number of events of a socio-economic nature causes segmentation and even disintegration of existing spatial systems. That is why both business entities and people operating in modern realities must have broad knowledge and be constantly updated about the changing socio-economic space. Areas with a higher level of development and a more diversified economic structure were more resistant to any crisis risks and were more adaptable to new conditions. Consequently, there was an ongoing concentration of economic and social activity in specific areas and in particular in large cities with a modern socio-economic structure, causing impoverishment of other areas. “The consequence of the concentration of development processes in large cities and their regions is the divergence of regional GDP per capita” [Herbst, Wójcik 2013, p. 8].

Simultaneously, with the development of a knowledge-based economy as a new economic paradigm, the so-called new factors which include the quality of human capital, specific IT infrastructure and the quality of business environment are gaining in meaning in the development of spatial units [Herbst, Wójcik 2013, p. 6].
2. Modern conditions for development

As emphasized by M. Smętkowski, when he identifies sources of growth in the eastern states of the EU, “... the changes in the economic structure consist in the increase in the importance of higher value-added goods and services sectors at the expense of lower sectors, which in turn can be an important source of economic growth” [Smętkowski 2014, p. 9]. The author points out that the sources of regional differentiation and the rate of development in the analysed countries were [Smętkowski 2014, pp. 25-26]:

- flows of workers between poorer and richer regions,
- different sources of economic growth in different types of regions,
- processes of re-industrialisation which can pose a threat in the context of low technological advancement and poor innovation of small and medium enterprises,
- modernization of agriculture in the outermost regions that in the absence of acceleration of structural change may pose a threat to the long-term growth of these regions.

In addition, it should be pointed out that the continually changing conditions of the functioning of the regions in contemporary realities result in a continuous reorientation of resources that influence the development (competitiveness) of the region [Łaźniewska, Gorynia (eds.) 2012, p. 96].

In such dynamic conditions, we are witnessing the increasing dominance of horizontal systems of flexible specialization (commonly called economic networks), which is undoubtedly a reflection of the spatial development of a knowledge-based economy, and which manifests itself in replacing vertical relationships with horizontal ones and impacts in the economy. The formation of these economic networks takes place in all spatial scales of the modern economy, which is an expression of the substitution of the bureaucratic vertical organization by horizontal relations [Domański 1997, p. 94]. The development of these networks results from the diversification of economic activity which is reinforced by the influence of new technologies, the differentiation of the needs of consumers and manufacturers, internationalization and globalization of the economy [Domański 2002, p. 199]. It is vital to agree with M. Castells that in the face of the crisis of organization which is undergoing rapid and turbulent changes in technological conditions, these are networks not companies that are becoming efficient units in the knowledge economy [Castells 1998, p. 171]. As a result, there is a new kind of economic organization called a network enterprise in which the various elements of the network can belong to different enterprises resulting from the blurring of boundaries between the organization and the environment. This means that the consideration of innovation through the prism of one isolated enterprise becomes ineffective as it arises in a network where many different organizations and institutions cooperate in a variety of ways, taking the form of microeconomic local connections in space. The attribute of each network is its location in the resources and relationships of a particular...
region, both social, institutional (often referred to as regional innovation systems) as well as economic. This aspect is related to the embeddedness of [Wojtasiewicz 2007, p. 310] networks in the region and its adoption of elements and relationships specific to it. This characteristics concerns the endogenous resources of the region which are both tangible and intangible especially those of a unique character and a source of competitive advantage for the region on the market. In this context, the social embeddedness is characterized by non-quantifiable phenomena occurring in the regional community such as entrepreneurship, innovative attitudes, social capital, trust, patterns of attitudes, self-identification, etc. The second important concept is institutional embeddedness which refers to research and development institutions, or to financial institutions. As a result of embeddedness, the boundary between the enterprise and the environment is blurred. Only the regions with sustainable elements of the knowledge economy, including learning regions, can create networks as a way to adapt to changing conditions. The region in which the network takes shape is subject to a new organizational logic. In every field of socio-economic life, forms of flexible network connections dominate, leading to the creation of innovation, which results in the accumulation of knowledge. However, it is important to remember that networks form a sort of social skill, that is, the community of a region must be able to share ideas, information, resources, and thus improve performance. This social networking ability can be acquired but it requires a great deal of effort not only for education but also for mental changes and for creating new patterns of behaviour and attitudes.

It is important that the region known as the learning one enables internalizing the potential accumulated in the networks through the possibility of complementary use of resources within existing and developing co-operation. However, as it has already been emphasized, the formation of networks in the region is a selective process, i.e. it takes place with varying intensity at different points in the region. Areas that have the right knowledge and capital, including the most qualified human capital, become leaders in this process and they become a place where nodes are created in the network (usually large urban centres with a modern structure). The new structure of the region, created in these conditions, is on the one hand a new quality, but on the other it is characterized by discontinuity. This means that outside the areas of cumulative socio-economic activity in the space of the region there may be areas not covered by the network, i.e. not using the phenomenon of synergy there. This kind of network’s operation is a natural phenomenon in the region, except that the exclusion from the network of a particular area is not durable. This behaviour is consistent with the logic of the network, which is variable and its transformations occur in leaps, so that areas that are not so attractive in the future may become desirable elements of the network, for example due to its unique character, or other unrecognised reasons. It is more important for the region as a whole to be able, through its innovative character and unique potential, to create the basis for networking and to make full use of its benefits in the future.
Functioning of local and regional units in contemporary economic conditions...

In this context, attention should be paid to the segregation of local and regional spaces mentioned above, through the creation of isolated settlements and the impoverishment of others. The examples here are different forms of the so-called gated communities, defensible spaces, gated estate or security zones. As a result, public space turns into residential area. Another phenomenon is the rise of social attitudes such as NIMBY (Not In My Back Yard). It is characterized by the acceptance of the construction of large public facilities (such as roads, bridges, etc.) but provided they are not located in the immediate vicinity. These and other negative phenomena occurring in space are often explained by the presence of a lock-in effect that leads to the closure of a given area, its isolation, and its economic decline. There occurs a low degree of adaptability to new operating conditions in such a situation. Another negative phenomenon is the dynamic development of the human space which mimics the public space and has only a commercial character (e.g. shopping centres and malls).

In light of the above, it can be said that the basic criterion for contemporary development on a local and regional scale is the adaptability of spatial structures to changes. Notably, the better developed areas respond more quickly to new realities, adapting their structures to the concentration of factors of production in areas characterized by multifunctionality, which is incompatible with the assumptions of the poly-centric concept of spatial development.

In the context of the development pressure essentially important are the projects which lead to the increasing levels of qualifications and education (continuing education), increasing R&D investments, preferring to use the latest ICT developments in the development of local infrastructure and what is even more important, improving the institutional systems related to spatial management, as well as its individual elements. As for the institutions themselves, their role is to limit the uncertainty of the functioning of a given community in space. As pointed out by P. Hlavacek in his book, “The Mechanisms and Actors of Regional Development”, the role of these institutions can often have a decisive significance for the direction of development of an area [Hlaváček 2012, pp. 34-35]. The author emphasizes that both the formal and informal institutions should be considered in the evaluation and programming of the given space, as only the full distinction of institutions will allow to fully grasp the processes taking place in a given space. One of the authors attributed to this division of institutions is Douglass C. North [North 1990]. He stated that formal institutions (constitution, laws, property law) have the character of formal rules (or system of these rules) that describe or restrict behaviour hence they are easy to identify. On the other hand, informal institutions (customs, conventions, beliefs or norms) are accepted by the community living in the space and are often difficult to identify by outside researchers [North 1990, p. 6].

When analysing the development of spatial units, it is important to state that in modern times the growing dominance of science brings about significant changes in the functioning of local and regional communities. These changes necessitate
projects which prepare these communities to understand these transformations and, more importantly, to gain acceptance which directly leads to transformations of the institutional framework of a given economic space. This is a very complex task especially in the case of informal institutions; it is all the more difficult because knowledge as a new production factor has led to the revaluation of already classic factors. Knowledge is not subject to the law of substitution and is not consumed in the same way as other factors, but it is constantly being perfected. This situation necessitates the reorientation and recombination of other factors of production. These transformations are commonly seen in the field of labour and capital, when in the contemporary considerations it is rather not labour resources but human capital which is discussed and this change does not only lead to a departure from quantitative to qualitative category but actually combines these two factors. At the same time, the concept of capital has expanded considerably, and intellectual capital rather than financial capital is undoubtedly becoming important. As a result, it should be emphasized that whether we want to or not, today knowledge is becoming one of the most important factors in economic activity as it re-evaluates the other ones, which in turn leads to their recombination in Szumpeter’s terms. Parallely, as Toffler justifies, it is a universal substitute for all other factors of production (primarily material and transport resources) [Toffler, Toffler 1996, p. 40]. From an economic point of view, it is an important element of economic infrastructure and market processes, but simultaneously it is a public good materializing in the artefacts and in the education of individuals [Domański 2004, p. 269]. At the same time, in recent years, we have witnessed the intensification of the process of creating new knowledge (both scientific research and the implementation of new technologies), and one even begins to describe human activity in this field in the terms of Moore’s law [Frejtag-Mika 2006, p. 39] (it refers to integrated circuits doubling their capacity every 18 months). Therefore, in the new reality, it is important not only to create knowledge, but also to create the conditions for transferring it to business practice (it is then called pro-innovative policy).

With regard to the above considerations, it should be noted that the amalgamate of different systems is a permanent feature of contemporary economy both in the world, in the country and above all in the region. This means that new management rules are only available at selected locations and not at the same time throughout the area, and therefore spatial dimension must be used to ensure reliable and responsible research into these processes. As a result, in a given time in space, there are different economic systems from the oldest (original) to the newest which treat the endogenous resources of the region differently. In order to prevent the exclusion of places not subject to the increased economic activity, it is necessary to create the appropriate institutional infrastructure (education, efficient public administration, health care, but also sewage systems, road infrastructure, etc.) and above all the establishment of a connective infrastructure which is to provide wider spatial diffusion (distribution) of benefits derived from the concentration of economic activity in selected locations.
The driving impulses of these motor centres are spread through appropriate infrastructure (known as spatially blind institutions) of prosperity and not necessarily economic activity. Summing up, the long-term convergence of living standards is possible to reconcile with the divergence of economic activity provided that spatial integration is widespread both nationally and internationally. This approach is derived from the observation that prosperity does not appear simultaneously across the whole region or country, but has its specific place in space.

Under such conditions, the role of the local or regional authorities is particularly important, as they should focus on strengthening internal, often very unique resources that will in the long run form the basis of development. This approach is also evident in the theory of for instance the transition from classical concepts of development to the economic base (where the basis of development is, inter alia, the production and sales of goods on the external markets), to the concept of endogenous growth. These models attempt to eliminate the fundamental weakness of all neoclassical models, namely the lack of clarification of the phenomenon of constant product growth per employee. It is determined there by an exogenous variable unexplained in the model, i.e. the rate of growth of technical progress.

The new approach incorporates technical progress into the model, which is treated as an explanatory variable. For example W.M. Ducks draws attention to the so-called “Solow’s Remainder” which is not described by changes in factors of production and which directly refers to accumulated technical knowledge [Gaczek 2009, p. 32]. This is an important element in Solow’s model but it assumes that technical progress, “which increases the suitability of the factors of production, undermining the possible impact of a slowdown in capital or labour accumulation” [Gaczek 2009, p. 32] is exogenous. This approach does not fully describe the sources of contemporary spatial development. Obviously, one can agree that the technological progress or innovation is exogenous but in the process of diffusion it undergoes “endogenising”, in which the specific intangible resources of a given territory are used. As S. Davides pointed out in his model of the process of diffusion of innovation, during this process, the innovation itself is modified by increasing its value, leading to increased spatial distribution of these improved innovations [Gomułka 1998, pp. 76-79], and this improvement is undoubtedly related to the phenomenon of “endogenisation” that utilizes the intangible assets of spatial units.

### 3. Conclusions

In conclusion to the above considerations, one must agree with the statement that in the adaptation of local and regional units to modern business processes, new assumptions have to be worked out in order to be effective. Under these assumptions, not only the processes related to the development of a knowledge-based economy or globalization should be taken into account, but also the role of local and regional
communities, together with all endogenous resources, which, if based on innovation, can be the basis for the competitive advantage of a given spatial unit. On the one hand, these actions must also undergo a process of “endogenisation” (i.e. using unique regional resources) and, on the other, they should be increasingly selective and flexible.

**References**


