Political and economic development processes in the Baltic region in the context of the challenges of creation of knowledge based society and knowledge economy in the European Union are analyzed. The main priorities of the political and economic changes in the Baltic countries, as well as of the modernization towards Europe of knowledge are discussed.

Modernization processes, as well as controversial changes and the unified social, economic and technological space formation processes in the Baltic region are described and analyzed. The processes of the creation of knowledge based society and knowledge economy are comprehended as an important factor of further social, economic and technological modernization in the Baltic countries, as an precondition for more intensive and active integration of Baltic social and economic systems into the European and global economic and technological structures.

The inter-Baltic countries integration processes are analyzed holistically. It is shown that the inter-Baltic countries integration cannot be separated from the formation of a unified social, economic and technological space. It is far more detailed, comprehending the complexity and duality of the formation of such a space, to discuss the array of questions which affect the Baltic region on the basis of its being a system, as well as on the Baltic countries unified development details.

The multidimensional conception of the Baltic region as a whole is described. This conception represents some possibilities for the formation of a unified social, economic and technological space. The main idea of this conception is the multidimensional evaluation of the development factors and processes in the Baltic countries. The conception of the Baltic region as a whole is related to ethnic, social, cultural, political and economic development process varieties, as well as the formation of a evaluation criteria for this region as a whole. The base condition, which must be followed for understanding the Baltic region as a system, is that the Baltic region must be understood as that whole together with the characteristic differences and signs of internal conflict. Also, these signs in the Baltic region are very clear; the analysis of these signs is a crucial link to understanding the Baltic region as a system.

The problems and priorities of networking in the Baltic region are described in detail.

The regularities of the political and economic development in the context of the changes towards Europe of knowledge, as well as the processes of formation of the unified social, economic and technological space in the Baltic region as an perspective research area is described.

Keywords: modernization and transformation processes; networks and networking; unified social, economic, technological space; Baltic region; Europe of knowledge.

Introduction

Modernization towards Europe of knowledge and the knowledge based society and knowledge economy creation could be defined as the main priority of the political, social and economic development processes in the European Union.

Modernization towards Europe of knowledge and the knowledge based society and knowledge economy creation could be described as an complex transformation with the qualitatively new societal life oriented priorities. It means, that the transformation processes representing the new quality oriented changes in the society and in the social economic life are an important part of the political, social, economic, technological development processes in the European Union in general, as well as in various countries and regions of the European Union, including in the Baltic region.

Modernization towards knowledge based society and knowledge economy creation could be defined as an important priority of the political and economic development processes in the Baltic region, especially in the context of general orientations towards Europe of knowledge. Of course, political and economic development processes in the Baltic region in the context of the challenges of creation of knowledge based society and knowledge economy in the European Union in general could be defined as an important object of the scientific research on the European integration, enlargement of the European Union, on the European culture and social, economic and political development in Europe.

There are some different traditional and the new theoretical approaches of the transformation processes, as well as processes of modernization towards Europe of knowledge and the knowledge based society and knowledge economy creation in various regions of the European Union, including in the Baltic region.

At this time, in the enlarged European Union, there is a complex process of the new transformations representing the new phase of the political, social, economic modernization, including the knowledge based society and knowledge economy creation. An important direction of the transformations in the enlarged European Union is the
active interregional and internal regional political, social, economic and technological integration and formation of the unified social, economic and technological spaces. This direction could be defined as *regional integration oriented transformations* and represents some activities towards the creation of knowledge based society and knowledge economy in various regions of the European Union, as well as in the European Union in general. This complex process of the new transformations representing the new phase of the political, social, economic modernization, including the knowledge based society and knowledge economy creation, is the main characteristics of the European context of the changes and development processes in the Baltic region.

Regional integration as well as the knowledge based society and knowledge economy creation oriented transformations in the European Union, including unified spaces formation oriented transformations in the Baltic region, could be defined as an important precondition for further development of qualitatively new society in the Baltic countries.

Knowledge based society and knowledge economy creation as well as unified spaces formation oriented transformations in the Baltic region could be defined as *an complicated scientific research area*. The main research priorities in this area are the following: the theoretical conception of the Baltic region as a whole; the complex analysis of the arguments determining the idea of the Baltic region community and unity, and the complex analysis of the opposing arguments to this idea; the formation of regulating and self-regulating mechanisms, the political, social, economic, technological and knowledge based society and knowledge economy creation oriented development tendencies in the Baltic region.

The following material is devoted to these research priorities.

### 1. The Baltic region in the context of the knowledge based society and knowledge economy creation processes: unity and internal differences

The Baltic region in general, all three Baltic countries – Lithuania, Latvia, Estonia, as well as political, social and economic development processes in this region could be defined as *an important object of the scientific research and practice oriented projects* on European integration, enlargement of the European Union, the changes in the society, economy and culture in the Central and Eastern Europe, as well as future oriented relations in the system “West- East” (Melnikas B., 1997, 1998, 2002, 2011; Melnikas B., Reichelt B., 2004).

Development processes in the Baltic region could be defined as *an important factor of complex societal modernization in the Baltic countries and in the Central and Eastern Europe in general*.

At this time, in the Baltic region, there is a complex process of political, economic and social transformation, representing the spread of democratic relations, orientation towards the priorities of modern social and economic changes, and also the internationalization of political, economic, technological, social and cultural development, as well as the knowledge based society and knowledge economy creation (Smith D.J., 2005; Kelertas V., 2006; Melnikas B., 2011).

The changes in the Baltic region represent the *typical trends* of the Baltic countries development processes in the context of the enlargement of the European Union, as well as in the context of the modernization processes in Europe in general. This context could be defined as *an new transformations oriented context* (Hofbauer H., 2003; Lavingne M., 1995; Lieven A., 1995; Brunner G., 2000; Pollert A., 1999).


The transformation processes in the Baltic countries are various. One of the basic directions is connected with the Baltic region as a very complex *system* for political, economic, and social development.

Perspective views toward the Baltic countries should be connected with the condition, that the transformation processes in the Baltic region should occur in stages to create conditions for the formation of a *unified social, economic and technological space in the Baltic region*.

Apart from that, that the Baltic region is *not yet* unified in the technology, economic, and social spheres, there remains the proper conditions for the formation of that type of space. These conditions allow for the Baltic countries questions to be viewed as those of *system development*, especially because these questions are remarkably actual in the context of European integration and further development of the enlarged European Union. At this point it is noted, that the more active and intensive further integration of the Baltic countries into the social, economic and technological systems of the European Union in general, as well as the further international activities and co-operation problems of the Baltic countries with the partners in the global spaces can constructively be solved only then, if the Baltic region forms a new type of *inter-regional integration and co-operation mechanisms*.

The inter-Baltic countries integration cannot be separated from the formation of a unified social, economic and technological space.

The *multidimensional conception of the Baltic region as a whole* represents some possibilities for the formation of a unified social, economic and technological space. The main idea of this conception is the *multidimensional evaluation* of the development factors and processes in the Baltic countries.

The conception of the Baltic region as a whole is related to ethnic, social cultural political and economic development process *variety*, as well as the formation of a *evaluation criteria* for this region as a whole. The base condition, which must be followed for understanding the Baltic region as a system, is that the Baltic region must be understood as that *whole* together with the characteristic differences and signs of internal conflict. Also, these signs in the Baltic region are very clear; the analysis of these signs is a crucial link to understanding the Baltic region as a system (Melnikas B., 2002).

An important idea of the multidimensional conception of the Baltic region as a whole is, that in the functioning course of every system, there are two types of forces which represent themselves in various forms - *centripetal and centrifugal*. This team of forces...
Reflects the two system development tendencies, supplementing one another, in relation to that

- the system expresses itself as a unified, constant and inseparable organism,
- the systems separate parts express themselves, to a great or lesser degree of freedom, in the respect to those rules and limits which conditions the goals, tasks, and interests of the general system as a whole.

The logic behind reflected conceptions of centripetal and centrifugal forces can be used in evaluation of political, social and economic development processes in the Baltic region. Assuming that political, social, and economic development as well as transformation processes, were conditioned by two rather opposing and supplementing tendencies in the past, are conditioned now and will be conditioned in the future:

- the formation of the Baltic region as a geopolitical, social, cultural and economic community, while the political, social and economic developments rule as much in the Baltic region as in the separate Baltic countries is the Baltic region’s community and the spread of the internal integration whole of the Baltic region,
- the formation of the whole of the Baltic region as separate Baltic countries, while ruled by political, social, and economic development is the affirmation of every country’s internal priorities and the Baltic region as averagely integrated and only formally expressing the spread as separate whole communities.

Both of these tendencies are based on a real Baltic region as a geopolitical, social, cultural and economic community formation.

In attempt to understand the system and organizational views of the Baltic region as real general development mechanisms and possibilities of further spread, it is necessary to more broadly discuss those actions, which determine the spread of the Baltic country’s community as well as of the Baltic region as a whole, and as much those factors which express the opposing regulations to the idea of the Baltic region community and unity.

The basic reasons in favour of the idea of the Baltic region as a geopolitical, social and economic community are the following: the shared geography of the Baltic countries, signifying the similarities and unity of the Baltic countries in the geographic respect; the similarities of historic culture of the Baltic countries; the shared political development of the Baltic countries; the shared economic development of the Baltic countries; the common social background of the Baltic countries; the shared problematic tendencies of the Baltic countries and their development in the view of European integration and international co-operation.

The aforementioned, as well as some other reasons reflect the most important arguments allowing that the Baltic region be regarded as a clear geopolitical, social, cultural, and economic community. It is also noted that opposing arguments cannot be ignored, indicating arguments that oppose the possibilities of the Baltic region being a community and a whole.

Opposing arguments to the idea of the Baltic region being a community. The major arguments opposing the Baltic region community and whole are: the geographic variety of the Baltic countries; the historic cultural differences between the Baltic countries; the political differences in the Baltic countries; the economic peculiarities of the Baltic countries; the social peculiarities of the Baltic countries; the problematic peculiarities in respect to European integration and international co-operatio.

One of the characteristics of the Baltic region, influencing the integration process problems and complexity of the region as a whole, is that none of the Baltic countries has the abilities and basis to be the leader of the integration process, and more so of the Baltic region.

The aforementioned, as well as other, reasons reflect the most important arguments, allowing the assertion that the Baltic region integration can really be implemented along limited average models, whose basis in geopolitical, social, cultural, and economic community formation will express many developmental tendencies which will oppose the logic of the region’s unity. The implementation of these models, on the other hand, could be the basis to rationally balance the views toward the Baltic region as a system full of unity, as much as a whole made up of separate yet similar countries.

2. Transformation into the system of “networks” as an especially important priority and factor of the political and economic development in the Baltic region

Networks and networking: main definitions. Taking into account the challenges of globalization and knowledge based society formation, the emphasis on social, economic and technological development in the Baltic region should be placed in international networks and networking development.

A theoretical basis for enhancing international networks and networking development and effectively orienting it to innovative changes could be created based on the solution of the problems associated with searching for synergetic effects, their identification and implementation.

In its turn, the solution of the problems associated with the search for synergetic effects, their identification and implementation can be based on modern networking concepts.

It is widely known that a networking concept may be perceived from various perspectives, which could allow us to outline the possibilities and prospects of various forms of cooperation between the business and public sectors as well as the interaction between these sectors in various networks.

It is considered that the networks of business and public sectors include individuals, enterprises, institutions and other organizations and their groups, as well as various structures representing state and international organizations, whose activities may be performed in national and international spaces. Thus, it may be argued that the effects of networking on the interaction between business and public sectors, their convergence and integration, as well as internationalization, have various forms, potentialities and perspectives and are very important for these processes. This, in turn, allows us to state that networking is particularly important for the analysis of interaction between business and public sectors and their convergence, as well as the changes in the interaction between various states and international businesses and, in general, the processes of their convergence, integration and internationalization.

In fact, under the conditions of modern social development, the advance of science and technology and, particularly, globalization and knowledge-based society formation, networks may be considered to be an effective and highly promising organisational form.
Modern networks as an organisational form are strongly oriented to innovations. Thus, the creation and development of networks is closely associated with the concept of searching for, identification and application of synergistic effects, reflecting the orientation to innovations.

To consider a network as an organisational form, its concept should be defined first.

In a general case, a network is considered to be a system of particular elements oriented to achieving a common goal of performing common functions.

This approach to the concept of network allows us to identify three main features of a network as a specific system:

• a network is a system because its elements are connected, interrelated and may operate as a unit,
• a network is a system oriented to achieving a common goal or performing common functions, which operates as a single control and self-regulating unit,
• the elements forming a network retain their original properties and features as well as the specific character (the latter allows us to identify a network as a specific system, whose elements are independent to some extent in performing their functions).

When a network is created or operates as a system of social character or nature, it may have a broader definition as follows: a network is an association of subjects, having specific interests, and forming a system. This system is characterized by the following features:

• the subjects of a system interact with each other,
• in a system, common interests are realized, common goals are pursued and general functions are performed,
• a system operates as an organisation with the control and self-regulated functions.

A network is usually defined as an organisation because it possesses the features of an organisation. An organisation is considered to be an association or a system of subjects, having two main features:

• the interaction between the subjects of a system manifests itself as direct interrelation and feedback and based on the respective infrastructure,
• in the structures of the special interests of any subject, common interests of the particular system’s subjects become apparent.

A network as an organization has some specific features as follows:

• the subjects of a network demonstrate independence and autonomy as well as the capacity to retain their original features and characteristics,
• a network as a single whole functions based on the principle of self-regulation.

The considered approach to the concept of networks, operating within the systems of social nature or character, allows us to interpret a network as a particular organisational form of various subjects’ activities. It is also clear that the main advantage of each network is its orientation to innovations: a network as a single whole and a system of various subjects has a potential for making use of various synergistic effects. Therefore, in an effectively operating network the conditions for developing, spreading and applying innovations are created.

Taking into account the challenges of globalization and formation of knowledge based society, it may be argued that the most successful and effective networks are those, operating and spreading in international spaces because in this environment more favourable conditions for spreading innovations may be created. For this reason, the problems of networks’ creation and expansion of the area of their application are considered to have the priority status in developing and enhancing international management.

It should be noted that the problems associated with the creation of networks as well as enhancing their performance and expansion of their application area are rather complicated. This is accounted for by the existence of various types of networks: networks may be identified and classified based on a number of various features, which means that various processes of networks’ creation and enhancing of their performance are very complicated.

Under the existing conditions, great amounts of various networks may be and are created and enhanced. The study of these various networks and their characteristic features is the main precondition for successful development and use of effectively performing networks.

The main characteristics used for describing and classifying various networks as well as for identifying the problems associated with their creation, enhancement and expansion of application area are as follows:

• the characteristics, describing the nature of network operation, its intended application and development,
• the characteristics, describing the subjects involved in network operation, as well as its influence on social, economic, political development and the advance of science and technology,
• the characteristics describing the scope and expansion of network operation as well as its influence on social, economic, political development and the advance of science and technology.
• Under the present conditions of social, economic and political development and the advance of science and technology, various types of networks, including enterprises, institutions and other organisations, which operate in the private and public sectors, as well as mixed networks, should be considered important. This statement is based on the fact that, in the context of the increasing globalization and the formation of knowledge based society, various liberalization processes manifest themselves in all spheres of life. Therefore, further development is becoming more and more dependent on innovations and private initiative. For this reason, such processes as the expansion of private sectors and promotion of cooperation between private and public sectors’ organisations, are growing in importance.

The above-described and other characteristic features, determining the scope of networks activities and development, as well as their impact on social, economic, political, scientific and technological advance, allow to determine the role of various networks and the prospects of their development in the modern world.

The above considerations allow to make a general conclusion that the problems of networks’ creation and increase of their effectiveness and rate of development should have the priority status in developing various strategies, oriented to the political and economic development in the
Baltic region in the context of the challenges of knowledge based societi creation.

The prospects and priorities of networking. Under present conditions, the development of various networks as effective organisational forms oriented to innovations may be considered to be an important factor, determining modernisation of society and effective economic development. The diversity of networks as well as possibilities of their development and prospects imply that network development may be perceived as a universal and particularly important factor for further modernization of society and effective economic development, clearly demonstrating itself in the spheres of life strongly affected by innovative development processes.

The diversity and multiforimty of networks, as well as possibilities and prospects of their development reveal the importance of establishing the priorities in the processes associated with society modernization and effective economic development.

The following priorities may be determined in the process of effective network development:

1. The development of international networks aimed at effective solution of international and global social, economic, political, safety, environmental as well as scientific, technological development and other significant problems for international society and mankind. This priority is relevant because it implies that network development aims to create the conditions for successful and effective solution of the problems faced by the international society and mankind, which are associated with the environment protection, the effective use of natural resources, political, cultural and economic development, safety and stability, as well as scientific and technological advance, crime prevention, etc. Moreover, this priority means that the described networks may be developed by various subjects, operating in various business and public sectors, while the networks themselves may be of multidimensional and international type;

2. The development of networks at the international level aimed at increasing the processes of effective development and advance in particular business and public sectors and other areas of activities, such as social, economic, political and cultural development and scientific and technological advance, etc. This priority is relevant because it implies that network development aims to create the conditions for developing highly effective systems in the particular sectors or areas of activities. Each of these systems should have some exceptional characteristics (advantages) (e.g. the exceptional quality, effectiveness and productivity of activities and their results). It should also be recognized as an indisputable leader in the area of its activities. The creation and development of such systems should ensure that the efforts would be made to solve the existing (or potential) problems in the respective business or public sectors and other areas of activities and that network creation and development would constantly encourage the advance in various fields (moreover, this priority in network development may also be defined as describing network development from the perspective of a particular sector);

3. The development of networks aimed at increasing the effectiveness of the development and advance in the clearly defined (national and international) regional systems. This priority is important because it shows that the creation and development of networks aim to ensure the conditions for highly effective multisector regional systems’ formation in particular regions. Each system should be oriented to the aim that a region as an integral whole, in terms of social, economic, political, environmental, cultural and other aspects of development, should demonstrate a particularly high quality of life. The creation and development of regional networks should constantly encourage and promote the advance in all main spheres of life (moreover, this priority in network development may be also perceived as describing network development from the perspective of a region);

4. The development of multisector and interregional networks aimed at increasing the effectiveness of the development and advance in various business sectors and groups of regions. This priority is important because it expresses the intention to develop various mixed (combined) networks in various ways, which could have the potential for promoting the development of various activities in various regions and environments. In addition, this priority is particularly important for encouraging and promoting innovations because it shows the orientation to the potentials aimed at developing diverse activities by merging general systems (e.g. in the fields of science, education, creation and spread of technologies, production and provision of services in business sectors, various public services, policy making, etc.) in various regions and differently defined areas (this priority in network development may also be defined as describing the development of multinetwork systems and multidimensional networks);

5. The development of interpersonal communication networks aimed at encouraging and increasing the effectiveness of partnership and cooperation between individuals in various branches of creative activity. This priority is important because it expresses the intention to encourage the creative activity of people in art, science, technologies, business, social life, legislation, politics, etc., as well as increasing its effectiveness by promoting innovations in all spheres of life of modern society. The significance of this priority is also shown by the fact that it emphasizes the role of each individual in modernizing the society and realizing the interests and aims of the society as a whole as well as of a particular community, a social group or an individual (this priority may be perceived as clearly oriented by international business subjects to the implementation of humanistic and democratic ideas).
scientific and technological advance, taking into account the challenges of globalization and the formation of knowledge-based society and economy, as well as the expansion of the European Union. The specific characteristic of these priorities is associated with the fact that they express the orientation to and promotion of innovations in all spheres of the life of modern society.

In addition, the significant role of network development in increasing cooperation of modern states with business subjects should be emphasized. It is clear that the development of interaction between national states and international business subjects with the help of networking should be considered as a priority issue. It should be emphasized that the above networking may have a particularly great variety of forms. Under the conditions of globalization and internationalization of political, social and economic development as well as scientific, technological and cultural advance, the interaction between the national states and subjects of international business may be expanded, using various models of networking. Based on these models, the partnership between various institutions, enterprises and other organizations, representing various business and public sectors, governmental bodies and non-governmental organizations, as well as the sector of civil society and various sectors associated with the development of science and technologies, operating in local, regional, national and international spaces, could be developed. Moreover, the creation and development of networks, realizing the interaction between national states and international business subjects in the process of implementation of the ideas of project management, should be considered a particularly important trend of networking development. Various networks used in development and implementation of large international projects should be considered a particularly progressive and perspective organizational form capable of accepting modern challenges of globalization and internationalization.

International networks, their creation and development. The creation and development of international networks is considered to be the priority trend in developing and promoting innovations and increasing the efficiency of performance of subjects, operating in various areas under the conditions of globalization and the creation of knowledge-based society and economy.

The particularly important cases of the creation of multidimensional international networks and the development of their activities, which strongly influence the promotion of innovations in the European Union under the conditions of globalization, are as follows:

- production and servicing systems of a complex nature, which operate in the form of international networks; in such systems, the information technologies and means of telecommunication, automation and robotics may be widely used, and they should create and distribute qualitatively new products,
- complex systems in the form of international networks intended for developing human resources and used for accumulating the functions for satisfying the needs for creating the knowledge-based society and developing education, science, studies and technologies in all spheres of life and creating the conditions for realizing the principle of continuous (lifetime) learning.

- the systems, operating in the form of international networks, which are oriented to breakthroughs and the creation of the qualitatively new situations in various spheres of life.

The described systems, operating in the form of international networks, may be, actually, viewed as particularly important models, which may be applied to further increase of the EU potential of innovations.

Complex production and servicing systems, operating in the form of international networks, are oriented to achieving synergetic effects and creating and spreading innovations in the following ways:

- in these networks, various systems, performing the same activities, but having different profiles, forms and operating in various countries and markets, can be combined. They may represent production, commerce, logistics and transport enterprises, as well as finance, insurance and other business subjects and various enterprises and organizations, providing marketing, auditing, consulting (including juridical advice), staff selection and training and other services. In these networks, particularly innovative forms of organization and control, required for developing partnership and collaboration as well as new organizational structures and methods of control, self-regulation, planning and work coordination, as well as models of strategic decision making, can be realized,

- in these networks, the products of a new kind may be developed, including various complex products representing a new system of activities oriented to the results of a new type and qualitative changes in the application area of these results (the emphasis on the complex nature of these products allows us to demonstrate the creation and implementation of innovations based on synergetic effects),

- in these networks, particularly innovative technologies and organizational forms, primarily, the technologies oriented to the implementation of the ideas associated with automation and robotization of the international electronic business, as well as the processes of production, logistics and commerce, can be developed and used.

The creation and development of the production and servicing systems as international networks also accumulates great innovative potentialities because it can stimulate the formation of economy at the qualitatively new technological level in the global spaces. Such economies may be characterized by the production and distribution of new complex products based on innovative technologies. The following new complex products may be considered most important:

- the existing and newly created international production and servicing power systems intended for creation, mass production, distribution and servicing of new models and types of manufactured consumer goods in the global spaces (e.g. production and servicing power systems used in manufacturing and distributing a new car or airplane model, new types of production and technological equipment, home appliances, furniture, clothes, foodstuffs, etc.).
• the existing and newly created systems of energy production and mineral extraction, as well as their transportation, processing, distributing and delivering to consumers (e.g. the systems for production and transportation of oil, gas, other natural resources, electricity, heat energy and water and their delivery to consumers, also including international systems),

• the existing and newly created various transport systems, including multimodal transport systems,

• the existing and newly created urban systems (towns, their regions, settlements, large industrial areas),

• various types of production and servicing power systems, operating in various branches of industry, agriculture and other production sectors, as well as in various sectors of culture, education, health protection and other areas.

The creation and development of production and servicing systems as international networks stimulates the formation of technologically new economy, also in the sense that it helps to promote the interaction and partnership between the systems, performing business functions, as well as the systems, operating in the areas of research, education, studies and culture. The development of interaction and partnership may result in the creation and development of qualitatively superior international networks, i.e. complex international systems for developing human resources, which should be oriented to the creation of knowledge-based society and economy.

Complex systems for developing human resources, operating in the form of international networks, are primarily oriented to continuous development of human resources, which could be able to accept the challenges of creating knowledge-based society and economy. These systems may be characterized by the following:

• the development of human resources is based on the principle of continuous (lifetime) learning, implying that each person should have an opportunity to continuously improve his/her knowledge and skills to meet the requirements of the future cultural, social and economic development and the development of knowledge-based society and economy, as well as technological and scientific advance, and the changes in the society and its lifestyle,

• human resource development should be primarily oriented to the formation of the potential for creating the conditions for more effective development of constructive visions of the future and successful realization of future plans,

• human resource development should be considered to be a complex continuous process, including versatile processes of studying, improvement of professional skills in various areas, participation in research, independent individual and teamwork, analytical and design work, as well as leading and executive work in various sectors and at various levels, knowledge acquisition, development of various skills and competences (human resource development as a complex process creates the conditions for every person to become a harmonized personality),

• human resource development should also embrace various institutions and organisations engaged in human resource development as the bodies, performing training, research, professional orientation and consulting functions as well as various enterprises and organisations, where people perform their work and get various experiences and competences (all considered enterprises and organisations should interact with each other, making a network oriented to synergetic effects and innovations),

• human resource development should be oriented to the internationalization priorities, therefore, the institutions, enterprises and organisations engaged in this process should operate as international networks (it is worth mentioning that international networks represent various universities, research institutes, science and technology parks, innovations centres, as well as various technologically oriented clusters and international networks of other similar organisations: these networks are particularly important for satisfying the needs for creating knowledge-based society and economy).

The above characteristics allow us to define complex systems of human resource development, operating as international networks, and to understand the role of such systems in developing innovations in the context of globalization.

To characterize the systems operating in the form of international networks more thoroughly, another type of such network represented by the systems operating as international networks, which are oriented to actual breakthroughs and the creation of qualitatively new situations in various spheres of life, should be considered.

Systems, operating in the form of international networks, which are oriented to the creation of qualitatively new situations and breakthroughs in various spheres of life, are particularly important in the context of globalization. Their significance and specific features are shown by the following statements:

• the systems operating as international networks are aimed at developing the effective solutions to global or international humanitarian, ecological and safety problems, as well as ensuring political, social, economic and technological advance. These problems are considered to be of great importance for many countries and require effective international cooperation and consolidation of efforts and resources,

• the structure of the systems operating as international networks may include various national and international governmental and non-governmental institutions and organisations, as well as the subjects of national or international business and public sectors, other public organisations, individuals and their groups, etc.,

• based on the creation of such systems, various kinds of resources and capacities required for developing and realisation of large international projects, which lead to breakthroughs and essential qualitative changes in various areas, may be concentrated.

It may be stated that the systems, operating as international networks and oriented to essential breakthroughs and the creation of qualitatively new situations in various spheres of life, may be considered to be high-level networks: they may be perceived as networks, having the potential for creating innovations and accepting the challenges of globalization.
In general, based on the above considerations, it may be emphasized that all systems, which operate or can operate as international networks, are considered to be perspective organisational forms aimed at developing and promoting innovations in the global spaces, particularly, under the conditions of the development and extension of the European Union. This means that the development of these international networks and their activities is the priority issue for developing and promoting innovations as well as increasing the potential for creating innovations in the European Union.

Innovative changes in the economic life of society: new opportunities and chances in the Baltic region. The growing importance of international networks and their role in creating knowledge-based society and economy allows us to argue that further growth of international networks and the development of their activities ensure the inevitable formation of a new type of international economy. It follows that rapid development of international networks and their activities in recent years may be interpreted as natural transformation of the existing economy into the new type of economy, which may be referred to as international network based economy, or, simply, ‘networks’ economy.

The main features of the emerging ‘networks’ economy are as follows:

• ‘networks’ economy is international by nature, therefore, under these conditions, all economic systems are becoming international or are integrated into international economic systems,
• under the conditions of developing ‘networks’ economy, international networks are becoming the main subjects of economic activities, while their share in the structure of the created product is constantly growing,
• international networks may be found almost in all sectors of economy,
• international networks are growing in size and the trend of their merging and forming larger networks can be observed,
• under the conditions of ‘networks’ economy, every international network tends to have a unique specialization and to become a monopolist in a particular area of activities or particular international markets (under these conditions, the main concept and forms of competition are gradually changing: the competition between specialized and monopolistic international networks is decreasing, while partnership relations between them are expanding),
• international networks are highly dynamic and capable of adapting to rapidly changing conditions: the dynamic character of international networks is demonstrated by periodical or continuous changing of their structures in response to the changes in network environment, which helps them to adapt to ever-changing environmental conditions,
• the process of creation and development of international structures is accompanied by the growth of importance of informal relationships and structures,
• in international structures, management, administration and self-regulation models based on horizontal relationships prevail.

The analysis of the essential features of the newly formed ‘networks’ economy allows us to identify those of them, which are gradually becoming the characteristic features of the whole international economy. They are as follows:

1. The transformation of traditional forms of competition into the interaction and partnership between the former competitors. Under the conditions of the developing networks’ economy, big business subjects in the form of international networks, having a monopolistic position in the area of their activities, prevail in international markets. This means that traditional forms of competition characteristic of the earlier economic systems are being transformed into the new forms of competition, which may be interpreted as new types of interaction and partnership (under the conditions of developing ‘networks’ economy, various international networks increasingly develop horizontal interaction and partnership relationships, operating in the market as mutually complementary subjects);
2. Decreasing significance of national dimensions. Under the conditions of the developing ‘networks’ economy, the subjects operating on the international scale, including international networks, have the strongest influence on the national and international economic situation. Moreover, the activity of international networks in international spaces favours the processes of integration of the earlier formed economies and the formation of multinational economic spaces. The liberalization and the increase of labour resources, as well as free movement of capital, goods and services, improve the conditions for further internationalization of economy and, thereby, the operation of international networks (thus, it may be argued that the activity of international networks is a significant factor influencing internationalization of economy and, at the same time, the merging of national economies);
3. The changing role of states in economic development. Under the conditions of the developing ‘networks’ economy, some controversial changes associated with the role of the states in the economic life can be observed. On the one hand, the role of the state in the economic life of the country is decreasing: the economic situation in any country is more strongly influenced by international networks, while the real influence of the state on economic development is gradually decreasing (under the conditions of internationalization of social and economic development, the state not only has fewer possibilities to influence the economic situation, but it is also becoming more dependent on the changes, taking place in international spaces and on the general economic situation in the world). On the other hand, the state and its institutions may take an active part in the activities of international markets and promote their development, determining some priority areas of these activities, which means that the state, participating in the international market activities or cooperating with international markets, can really control or influence the economic situation and even reinforce its role (it primarily refers to possibilities of state participation in the activities of various international organisations and, generally, to the activity of particular states on the...
Therefore, it can be argued that the role of the states is primarily determined by their activity in promoting and spreading various innovations.

4. The growing significance of strategic planning and programming. Under the conditions of the emerging ‘networks’ economy, the significance of the development and the implementation of international strategic plans and programmes has increased. Based on these strategic plans and programmes, large and long-lived innovative international projects aimed at concentrating large resources may be realized (in the future, the scope of the development and realization of such projects will be inevitably extended). The important factor, contributing to the increase of the significance of strategic planning and programming worldwide is a wider use of methods and models of planning regulation and administration characteristics of a planned economy. This implies that, in the process of further development of innovations on the international scale, the instruments intended for planned economy development will be used (it follows that, in the future, the features of planned economy will prevail over the features of liberal market economy in the developing ‘networks’ economy).

The above considerations helps to identify the development trends of international economy associated with proliferation of international networks, also including the trends, reflecting the prospects of promoting and spreading innovations. This means that transformation of the existing economic system into the ‘networks’ economy may be considered an issue, taking priority over other innovative changes.

Based on the presented statements, a general conclusion may be made that the transformation of the traditional economic system into the ‘networks’ economic system is considered to be a significant factor of increasing the potential of the creation and spread of innovations in the European Union. It follows that to achieve this, the creation of international networks and the increase of their efficiency should be encouraged: it is clear that new possibilities of purposefully increasing and effectively using the potential for the creation of innovations may be found by using international networks.

Conclusions

Knowledge based society and knowledge economy creation, as well as formation of the unified social, economic and technological space in the Baltic region could be defined as an important precondition for the further modernization and for more intensive and active integration of the national societal and economic systems in the Baltic countries into the common European and global development processes.

Knowledge based society and knowledge economy creation, as well as formation of the unified space in the Baltic region could be comprehend as an successful case of the regional integration oriented transformations in the European Union: regional integration oriented transformations could be defined as an important aspect of the social, economic and technological modernization in the European Union in general, and as an important factor of the knowledge based society and knowledge economy creation.

Regional integration oriented transformations and the unified spaces in the Baltic region formation processes could be defined as an important and complicated scientific research area.

The main research priorities in the area of knowledge based society and knowledge economy creation, as well as formation of the unified social, economic and technological space in the Baltic region are the following:

- the preparation of the conception of the Baltic region as a whole, including preparation and evaluation of various system indicators of Baltic region,
- the complex analysis of the expressions of centrifugal and centripetal force forming in the Baltic region as a system,
- the complex analysis of the arguments determining the idea of the Baltic region community and unity,
- the complex analysis of the opposing arguments to the idea of the Baltic region being a community,
- the formation of regulating and self- regulating mechanisms for Baltic region’s development,
- the social, economic and technological integration strategies for Baltic region.

The basis for the formation of a unified social, economic, technological space in the Baltic region is the comprehension of this region as a whole. The development of the Baltic region as a whole and its effectiveness, is largely based upon how sensible and effective these development regulations are, and also the self-regulation mechanisms.

There are many new factors of the effective political and economic development in the Baltic region:

- under the existing conditions, the processes of convergence and integration of business and public sectors, as well as the subjects operating in these sectors and their activities and development, clearly manifest themselves. On the one hand, these processes are interpreted as a consequence of globalization and internationalization processes. On the other hand, the above-mentioned convergence and integration may also be perceived as the important factors of internationalization of political, social and economic development, as well as cultural, scientific and technological advance,
- the interaction between public and business sectors primarily manifests itself in various forms of networking. The modern society is becoming more and more aware of the importance of various networks of subjects, representing public and business sectors, and these networks really start working as the main subjects promoting the development and progress of the society as a whole.

Taking into account the challenges of today, these conclusions may be of particular importance for further investigation of the problems associated with the ways of increasing the effectiveness of performance of business and public sectors.

The systematic studies of the Baltic region as a geopolitical, economic, technological, social and cultural whole are very prospective and actual in various ways in the context of challenges
of the knowledge based society and knowledge economy creation.

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