

ГЕТЬМАН О. Л.

канд. екон. наук,

с.н.с. відділу економіко-екологічних проблем приморських регіонів

Інститут проблем ринку та економіко-екологічних досліджень НАНУ

Французький бульвар, 29, м. Одеса, Україна, 65044

E-mail: [helenagetman24@gmail.com](mailto:helenagetman24@gmail.com)

ORCID: 0000-0002-7404-3738

## ПРІОРИТЕТИ ЕКОЛОГІЗАЦІЇ ІННОВАЦІЙНОГО РОЗВИТКУ ОДЕСЬКОЇ ОБЛАСТІ

**Актуальність.** Процеси глобалізації та глокалізації впливають на національну економіку і призводять до взаємозалежності національних економік, уніфікації світової економіки. Глобалізаційний вплив проявляється через транснаціональні корпорації, ринкову конкуренцію, ослаблення державного регулювання, загострення екологічних, соціальних проблем тощо. У той же час сучасні процеси глокалізації також мають вплив на національний розвиток. Нинішня ситуація змінює вектор державного та регіонального управління та впливає на вибір основних напрямків брендингу території, одним із елементів яких є екологізація інноваційного розвитку. Еко-інноваційний напрямок регіонального розвитку потребує низки власних нових та активних заходів, залучення всіх рівнів органів державного управління, науки, бізнесу, громадських представників для врахування соціальних потреб та інтересів суспільства. Тому аналіз впливу екологізації інноваційного розвитку на конкурентоспроможність регіону та визначення пріоритетних напрямків екологізації для Одеської області є актуальним сьогодні для посилення місцевих та глобальних позицій регіону в інноваційній сфері.

**Мета та завдання.** Метою статті є аналіз впливу екологізації інноваційного розвитку на конкурентоспроможність регіону (на прикладі Одеської області) та окреслення пріоритетних напрямків екологізації інноваційного розвитку.

**Результати.** Аналізуючи дослідження зарубіжних та вітчизняних вчених, ми дійшли висновку, що кінцевим результатом екологізації інноваційної діяльності у регіоні є позитивний соціально-екологічний та економічний ефекти, які забезпечують збалансований стійкий розвиток регіону та держави в цілому. Виділили пріоритетні напрями екологізації інноваційного розвитку Одеського регіону задля збереження та посилення його відмінностей в системі дії факторів глобалізації, розглянули теоретичні засади екологізації інноваційного розвитку, як елементу брендингу території, зробили аналіз екологічної компоненти в інноваційній діяльності Одеської області.

**Висновки.** Наш концептуальний підхід до визначення пріоритетів сформовано на основі аналізу проблемних місць у розвитку регіону, які потребують екологізації інноваційної діяльності, врахування глокалізаційної складової та розвитку інфраструктури, що відповідає запланованим цілям нової інноваційної стратегії розвитку України до 2030 р. Екологізація інноваційного розвитку регіонів на принципах глокалізації вимагає проведення низки власних нових та активних заходів, залучення всіх рівнів державного управління, науки, бізнесу, представників громадськості для врахування потреб та інтересів суспільства. Дійшли висновку що екологізація інноваційного розвитку прискорює процеси глокалізації та посилює локальні та глобальні позиції регіону в інноваційній сфері.

**Ключові слова:** пріоритети екологізації інноваційного розвитку, екологічні інновації (еко-інновації), глокалізація.

НЕТМАН О. Л.

PhD in Economics

Senior Scientific Researcher, Department of economic and environmental problems of seaside regions

Institute of market problems and economic & ecological researches of the National Academy of Sciences of Ukraine,

Frantsuzkyi boulevard, 29, Odessa, Ukraine, 65044

E-mail: [helenagetman24@gmail.com](mailto:helenagetman24@gmail.com)

ORCID: 0000-0002-7404-3738

## PRIORITIES OF ECOLOGIZATION OF INNOVATIVE DEVELOPMENT OF THE ODESA REGION

**Topicality.** Globalization and Glocalization processes influence on National Economics and lead to the interdependence of national economies, the unification of the world economy. Globalization influence is manifested

through transnational corporations, market competition, weakening of state regulation, exacerbation of environmental, social problems, etc. At the same time, modern processes of globalization also have an impact on national development. The current situation changes the vector of state and regional government and influences the choice of the main areas of branding of the territory, one of the elements of which is the ecologization of innovative development. Eco-innovative perspective of the regional development requires a number of own new and active measures, involvement of all levels of the public administration, science, business, public representatives for taking into account social needs and interests. Therefore, the analysis of the impact of ecologization of innovative development and competitiveness of the region and determining priority areas of ecologization for the Odesa region is relevant today for the intensifies local and global positions of the region in an innovative domain.

**Aim and tasks.** The aim of the article is analysis of the impact of ecologization of innovation development on competitiveness of the region (on the example of Odesa region) and outlining of priority directions of ecologization of innovative development.

**Research results.** Analyzing the research of foreign and domestic scientists, we came to the conclusion that the final result of ecologization of innovation activity in the region is a positive socio-ecological and economic effects that ensure a balanced sustainable development of the region and the state as a whole. The identified priority directions of ecologization of innovative development of the Odesa region for preservation and strengthening of its differences in the system of action of factors of globalization, considered theoretical bases of ecologization of innovative development as an element of branding of the territory, made analysis of ecological component in innovation activity of the Odesa region. It has been concluded that ecologization of innovation development accelerates the processes of globalization and strengthens the local and global position of the region in the innovation sphere.

The modern accelerator of the globalization of economic processes is the ecologization of innovation development, in the nature of which there are incentives for self-development, reproduction, generation of innovative ideas, production of new technologies, goods and services, ensuring the balancing of the socio-ecological and economic potential of the region and the country as a whole, which determines the direction, peculiarities and nature of the processes of globalization.

**Conclusion.** The concept of our investigation is that priorities of ecologization of innovation development setting should be made on the basis of identifying areas of concern in the region's development that require greening of innovation, taking into account the globalization component and developing infrastructure, that corresponding to the planned objectives of the new innovation strategy of Ukraine till 2030. The ecological compatibility of innovations intensifies local and global positions of the region in an innovative domain and is one of modern tools to advance globalization processes. It is one of the best tools corresponding to overcoming obstacles for expanding product limits of strategic markets as well as their integration into global chains of the added value. Ecologization of innovative development of regions on the principles of globalization requires a number of own new and active measures, involvement of all levels of the public administration, science, business, public representatives for taking into account social needs and interests.

**Keywords:** priorities of ecologization of innovative development, ecological innovations (eco-innovations), globalization.

**Problem statement and its connection with important scientific and practical tasks.** Creation of innovative economics with preservation of principles of a sustainable development and environment protection is a demand of a current policy of the world countries and it presents important challenges to Ukraine. They are connected with a constant economic growth and involve a reasonable usage of ecological resources and adhering to human rights. The historically long process of ignoring the significance of the environmental factor in economic development has led to modern environmental problems. The environment, its "quality" began to pose a threat not only to the economic development of humanity, but also to life.

As the main priority objectives of ecologization of innovative development, there are considered most often the goals related to the changes in socio-economic development of the economic system, which, along with the positive socio-economic effect, improve the state of the environment or significantly minimize the negative impact on it. Therefore, under the ecologization of innovative development of the regions, reference is made to the innovative processes for the development, creation and implementation of innovations in the form of new products, technology, method, form of production organization, etc., which directly or indirectly assist to minimize the negative impact of production and consumption on the environment and dealing with the ecological problems. So the problem of forming a priorities of ecologization of innovative development of the region is especially relevant in the modern time.

**Analysis of recent publications on the problem.** The main issues of socio-ecological and economic aspects of the ecologization of innovative development of the region are displayed in the following publications of scientists such as: B. Burkinsky, L. Kupinets, E. Gromova, N.Khumarova, B. Danilishin, Y. Barbiyer, A. Kameron, A. Markandi, K. Styuart, D. Piarsyak, N. Pakhomova, K. Rikhter, H. Malyshev, V. Bautin, L. Kuzina, I. Sychova, A. Poltarykhin, A.Tarasova, Y.Berezhnaya, I.Bystryakov, O. Veklych, A. Martynyuk, Y. Oharenko, E. Prushkivska, T. Halushkina, L.Melnyk and others. Despite the theoretical studies of this problem, most scientific research is associated with the individual components of the ecologization of economy. Thousands of years established in the World Summit for Sustainable

Development in Johannesburg underline the necessity of integration of environmental aims in the development policy and in the innovation of development. The process of greening the economy is considered in numerous spheres and embraces a number of issues such as the development of clean technologies [1,2], renewable energy sources, increasing of power and material effectiveness, changing of a consuming model and production of a more sustainable, integrated policy related to the products, green public purchases, green working places and an ecological fiscal reform.

The scientific association is nowadays more and more concerned at the concept "circular economy" which has a chain at the core "take, make, reuse". The "circular economy" is defined by the specialists as the economy peculiar to a renewable and closed nature. Its basis is made by closed supply chains, which are understood as stages providing maximisation of the added value during the whole product life circle with a dynamic renewing within durable temporary intervals of values of different types and scopes [3].

The term "inclusive economic growth" began to be applied actively by the specialists being stipulated in a number of significant international documents. Certain scientific sources focus on a social component of this term, underlining that an inclusive growth provides for a broad involvement of the population to the production process and promotes more fair distribution of its results among different population strata. For this reason the ecologization of innovative development must be based on a phased transition to the model "circular economy" with its further transformation into an all-embracing model of the "inclusive economy".

**Allocation of previously unsolved parts of the general problem.** Priorities of ecologization on innovation of development should be varied in line with the specificity of the innovative and ecological development of each region. In the conditions of the stagnation of global demand for ecological commodities and ecological innovation, the state faces the task of modernizing market policy in the internal and external dimensions in order to maximize the use of benefits of glocalization while simultaneously minimizing its negative effects. It is expedient to shift the emphasis of internal market policy in support of regional producers of quality and environmentally safe processed products, to assist them in certification for export to the EU and other countries of potentially competitive goods. It is expedient to direct the vector of the foreign market policy of the state on implementation of export potential of high value-added goods markets by strengthening the position of exporters in the traditional and development of new external markets.

**Formulation of research objectives (problem statement).** The aim of the article is to select the priority aspects of ecologization of innovative development of Odessa region, is to indicate the essence and growing importance of ecologization of innovative development of the regions as well as the achievable benefits resulting from the use of eco-innovations in glocalization processes.

**An outline of the main results and their justification.** Our research focuses on the solution of the next world problem: How Globalization and Glocalization processes influence on National Economics (Fig. 1). Globalization influences national development through:

1. World Trade
2. Redistribution of natural resources
3. through the movement of capital
4. And through free movement of goods, services, technologies and people.

All these important reasons lead to the interdependence of national economies, the unification of the world economy. Today there are changes in the modern market: the formation of a single market space, the interpenetration of markets, the emergence of transnational systems and forms of management.

Globalization influence is manifested through transnational corporations, market competition, weakening of state regulation, exacerbation of environmental, social problems, etc.

At the same time, modern processes of glocalization also have an impact on national development. Glocalization of economic processes means a characteristic feature of modern development of economic systems, which is expressed through the interaction and synthesis of local and global components and through the formation of institutional support. As the result the process of glocal innovation development ensures competitiveness and progressive changes in socio-ecological-economic system.

The processes of glocalization:

- To enhance the role of local self-government, expand the powers of the region and this a some of the aspects of the decentralization).
- To lead to equal partnership and developed communication between all participants of the innovation process: government, business, science and community.
- To the interaction of regions at national and international levels - interregional and cross-border cooperation.

- In addition the processes of glocalization take into account the peculiarities and specific capabilities of the region in pursuing its innovative development.
- Also the processes of glocalization provide innovative activities with appropriate resources (financial, human, technical, information, environmental), both from local and global sources, by facilitating access to them and creating opportunities for their use; ensure competitiveness and progressive socio-ecological and economic changes.

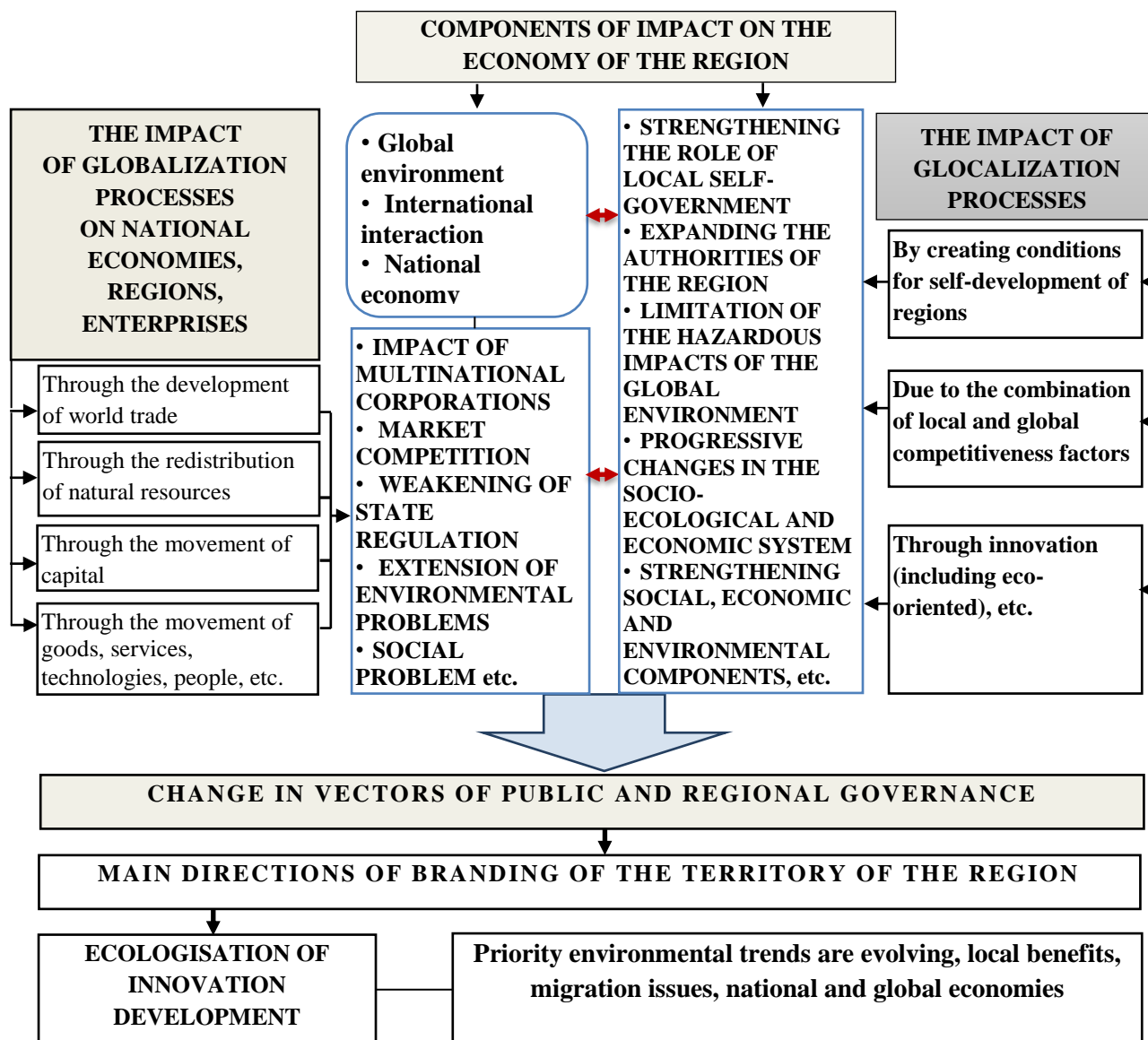


Fig. 1. The impact of globalization and glocalization processes on national economies

The current situation changes the vector of state and regional government and influences the choice of the main areas of branding of the territory, one of the elements of which is the greening of innovative development.

The scientific concept of our investigation is that ecological compatibility of innovations intensifies local and global positions of the region in an innovative domain and is one of modern tools to advance glocalization processes. It is one of the best tools corresponding to overcoming obstacles for expanding product limits of strategic markets as well as their integration into global chains of the added value. Ecologization of innovative development of regions on the principles of glocalization requires a number of own new and active measures, involvement of all levels of the public administration, science, business, public representatives for taking into account social needs and interests [4,5,6].

Ecologization of innovative development of the region is a systemic dynamic process of creation, implementation and dissemination in the region as environmentally oriented innovations so as raising the level of environmental friendliness of innovations, penetration of the environmental world view into all areas of economic activity of the region, inclusion of the environmental component in the system of financial and economic relations, formation of environmental infrastructure and education [7,8].

The final result of ecologization of innovation activity is a positive socio-ecological and economic effect, which ensures balanced sustainable development of the region and the state as a whole. Thus, the modern accelerator of the glocalization of economic processes is the ecologization of innovation development. In the nature of this development there are incentives for self-development, reproduction, generation of innovative ideas, production of new technologies, goods and services, ensuring the balancing of the socio-ecological and economic potential of the region and the country as a whole. The ecologization of innovation development determines the direction, peculiarities and nature of the processes of glocalization.

Ecologization of innovative development of regions on the principles of glocalization demands a strategic approach to its practical realization.

We created a quality model for ecologization of innovative development of the region under conditions of localization, a local component (Fig 2).

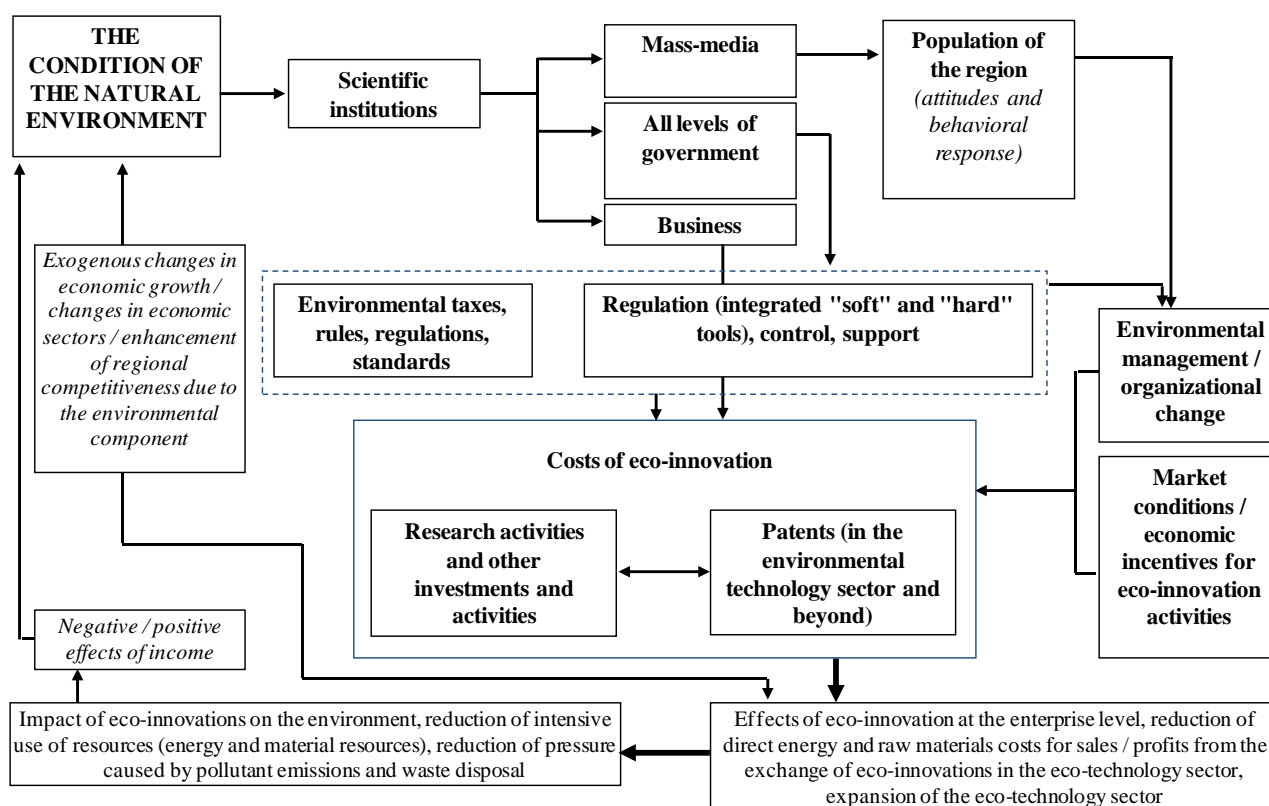


Fig. 2. The model of the environmental development of the innovative development of the region in the glocalization conditions, local component

It all depends on as follows: ecologization of innovative development - competitiveness of economics - development of the region - global positions of the region (Fig. 3).

We highlighted mutual relations between: eco-innovative enterprises, institutional and social environment within the context of creation of a competitive advantage of the regional economics based on eco-innovations as well as interrelation between ecologization of innovative development of the region and intensifying of global positions of the region in the innovative domain.

The priority areas for eco-innovative development must be the areas with competitive advantages which take into account and use local natural and resource preferences. They must be created based on the analysis of tendencies of development in the domain including the priority of national and global interests.

Odesa region is rich with a natural and resource potential (land, recreation and water resources).

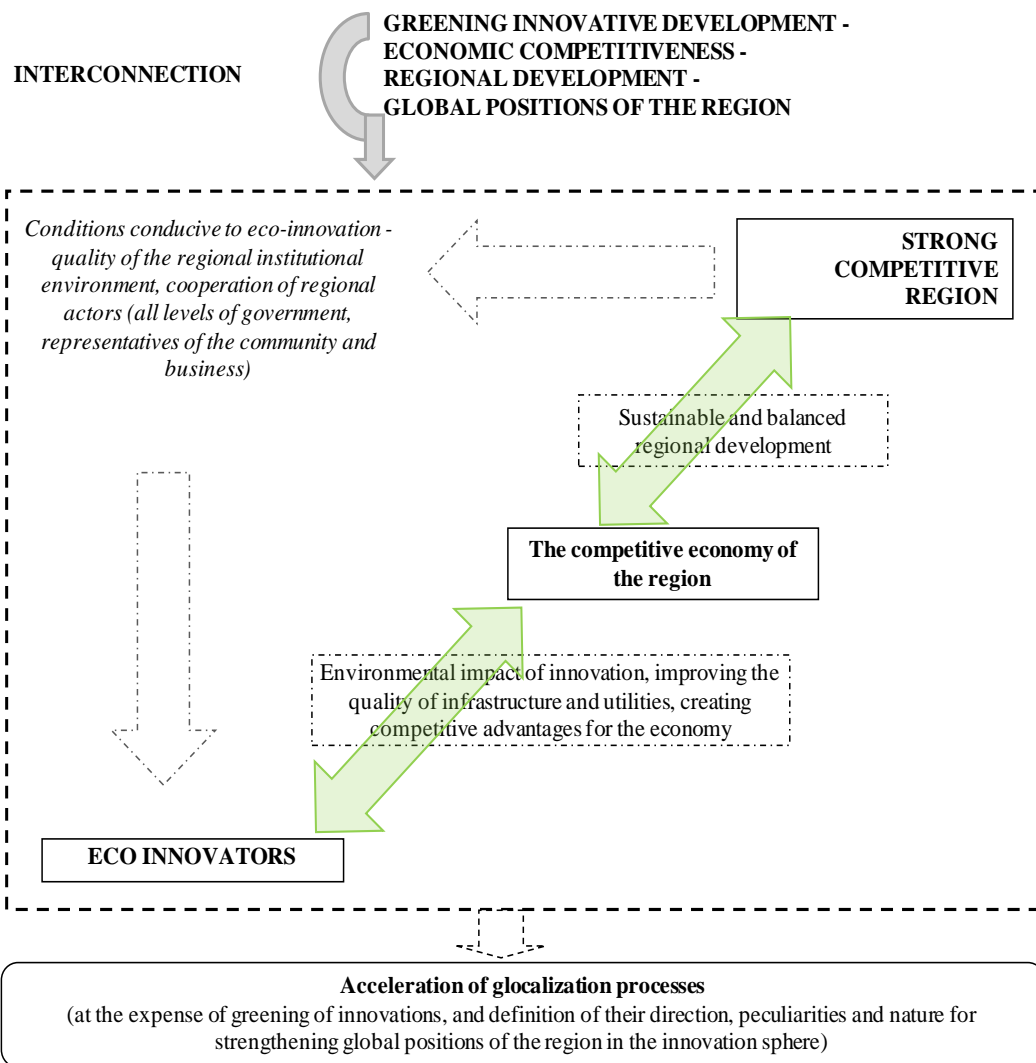


Fig. 3. The model of the environmental development of the innovative development of the region in the globalization conditions, local component

The region is regarded as the recreational and agricultural region of Ukraine, the region has its own business peculiarities due to the available ecological component, resources potential and perspectives for development.

However, the analysis of a current state proved that Odesa region is characterised by the development at the expense of uncontrollable consuming of resources, it has a low level of ecological investments and an unused potential of a market glocalization because of the ecological component.

It has a low level of eco-investments into the agro-industrial sector of Ukraine and this tendency decreases its financial base for implementation ecological innovations, expanding product limits of strategic markets and their integration into global chains of the added value.

Our methodological approach to determining priorities is created based on the identification of problem areas in the region's development which need ecologization of innovative activities, taking into account a glocalization component and development of the infrastructure.

The ecologization process of the innovative development in the region intensifies the resulting quality of innovative activities at the expense of the ecological component and opens new possibilities for the regional and international cooperation of the region.

As of this day the mechanisms of a systematic support of innovative eco-activities remain not involved in our country.

The supportive tools with a horizontal and functional financing are required to solve this problem: a promotional financial and credit, tax and depreciation policy; conditions which may promote a great

involvement of the innovative domain to the ecologization and ecologically directed innovative projects for off-budget investments.

We offered an ecologization model for the innovative development in Odesa region. It highlights the priorities, components of a complex mechanism and tools for its provision both on the state and regional levels (Fig. 4).

PRIORITIES				
Sustainable, balanced and durable development, continuous use of natural resource potential				
1. AGRICULTURAL COMPLEX	2. ATMOSPHERE AND WATER CLEANING, WATER SUPPLY	3. ENERGY EFFICIENCY AND ENERGY SAVING	4. DISPOSAL AND WASTE MANAGEMENT	5. RECREATION AND TOURIST COMPLEX
MECHANISMS				
Administrative and economic	Financial and economic		Institutional	Informative
Horizontal and Functional Financing Support Tools:				
<ul style="list-style-type: none"> <li>•basic supporting technologies</li> <li>•information and telecommunication technologies</li> <li>•education, science, research infrastructure, higher education</li> <li>•glocalization</li> </ul>			<ul style="list-style-type: none"> <li>•eco-innovation clusters</li> <li>•social innovation</li> <li>•new models of development financing (financial-investment regional fund)</li> <li>•startups</li> </ul>	
PRIORITY ACTIONS AND TECHNOLOGIES				
Creating high value-added products; agro-clusters; creation of an agricultural park; creation of an information-consulting center and etc.	Development of nanotechnology in the fields of water and atmospheric resources purification, as well as for pollution prevention; implementation of transboundary projects for joint reduction of pollution of the Black Sea basin and rivers, etc.	Creation of nanotechnologies in alternative energy (materials for solar cells); development of new energy-saving technologies; development of efficient technologies for the use of environmental heat, creation of an engineering consulting center, etc.	Introduction of technologies for recycling of raw materials; introduction of technologies of use of waste for production of materials, for use in the road and construction industries; food waste recycling projects (for compost and for biogas and energy), etc.	Creation of coastal ecological infrastructure; implementation of the Blue Lagoon pilot project (beaches that meet UNESCO's international environmental standards); coast protection projects; recreational tourism, ecotourism, agritourism, etc.

Fig.4. Ecologization model for the innovative development in Odesa region

It comprises 5 priorities such as: administrative and economic, financial and economic (a basic tax standard - in compliance with expenditures to avoid pollution), institutional and informational provision.

The practical regional steps are as follows: we offer creation of a special regional department of innovative development which is to join government-business-society and is to coordinate the innovative development of Odesa region according to the priorities, it will have a flexible informational structure, provide consulting services with a created scientific and research consortium and organisation to implement the project into a practical life.

For a financial provision - a creation of a special financial and investment regional foundation with an exactly intended spending of incomes (including for the development of an eco-infrastructure and its projects support). We have an opinion on its organisational and economic basis for its creation as well as sustainable financial sources for its functioning.

**Conclusions and perspectives of further research.** The final result of ecologization of innovation activity in the region is a positive socio-ecological and economic effect, which ensures balanced sustainable development of the region and the state as a whole. Thus, the modern accelerator of the glocalization of economic processes is the ecologization of innovation development, in the nature of which there are incentives for self-development, reproduction, generation of innovative ideas, production of new technologies, goods and services, ensuring the balancing of the socio-ecological and economic potential of the region and the country as a whole, which determines the direction, peculiarities and nature of the processes of glocalization.

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