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<https://doi.org/10.15407/scine17.02.025>

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## **THE NATURE OF REGIONAL DEVELOPMENT INSTITUTIONS AND THEIR ROLE IN INNOVATION-DRIVEN MODERNIZATION OF ECONOMY**

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**Introduction.** *In the context of modern industrial revolution, Ukraine needs re-industrialization on the basis of innovative modernization, which is impossible unless appropriate institutions are created.*

**Problem Statement.** *The formation and implementation of a modern regional development policy aiming at stimulating innovations requires the search for new opportunities through the creation and effective operation of regional development institutions.*

**Purpose.** *To substantiate theoretical approaches to understanding the concept of regional development institutions and their role in innovative economic modernization.*

**Materials and Methods.** *The theoretical heritage of leading researchers on the institutional conditioning problems of innovation processes has been used. The research is based mainly on the institutional paradigm and involves a synthesis of institutional and evolutionary approaches.*

**Results.** *It has been proposed to consider regional development institutions as differentiated regulatory regimes that create the conditions for achieving the desired socio-economic status of the system as a whole by enabling economic entities to withdraw innovative rent, in a broad sense, and as organizations of different legal forms, which are elements of the regional innovation infrastructure and ensure the development and support of all innovation process stages while minimizing transaction costs, in a narrow sense.*

**Conclusions.** *It has been hypothesized that regional development institutions are not only organizations, mechanisms, tools, and norms of behavior, which are created by government, but also the results of institutionalization, at the meso level, of rules elaborated by a collective of economic entities. Further research shall identify opportunities to form regional development institutions as a result of collective efforts to overcome uncertainty and to minimize transaction costs in innovation process.*

**Keywords:** *region, regional development, regional development institutions, innovation, innovation infrastructure, and regulatory regime.*

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Citation: Lyashenko, V. I. , and Soldak, M. O. The Nature of Regional Development Institutions and Their Role in Innovation-Driven Modernization of Economy. *Sci. innov.* 2021. V. 17, no. 2. P. 25–38. <https://doi.org/10.15407/scine17.02.025>

ISSN 2409-9066. *Sci. innov.* 2021. 17(2)

In the conditions of modern industrial revolution, Ukraine, like many countries, needs reindustrialization that is impossible unless an institutional environment for economic modernization is formed on an innovative basis. Institutional underdevelopment that “replicates the formation of hybrid inefficient institutional structures and their corresponding environment”, growing income stratification, as well as regional asymmetry, inefficiency of public administration, in particular, administrative barriers to business development, all together, limit innovation as the most important component of successful regional development [1, 38].

The actualization of the role of institutions stimulates research interest in the direction and nature of causal links between institutions and economic development in specific spatial conditions, the ability of institutions to stimulate the development of specific industries and regions [2]. Recent research at the regional level, with the use of econometric methods has proven the dominance of the institutions over the “first-nature” geography. The results of the analysis have emphasized the importance of local institutional conditions for economic development in Europe as low corruption and government accountability have been recognized as decisive factors in regional economic growth [3].

In the context of regional and local policy-making, the term “regional development institutions” has been widely used by scholars, experts, and government officials for the past two decades, but conceptual approaches to defining the regional development institutions are different. At the same time, the formation and implementation of modern regional development policy that aims at intensifying innovation require the search for new opportunities through the creation and effective operation of regional development institutions.

As part of the continuation of research on the problems of institutions, the purpose of this research is to develop theoretical approaches to understanding the essence of regional development institutions and their role in innovative modernization of the economy.

This research deals with the theoretical heritage of the economic doctrine of leading modern domestic and foreign researchers on the problems of institutional support of economic development; institutions as a driver of economic growth; institutional conditionality of innovative processes in industrial development; and the role of institutional environment in the formation of development institutions. The research is based mainly on the institutional paradigm. The introduction of regional development institutions in the field of mesoeconomic research involves a synthesis of institutional and evolutionary approaches.

While addressing the problem of identifying regional development institutions, one has to seek to answer at least the following interrelated research questions: “What is the current regional development policy?” “What is the specific feature of development institutions?” and “What is their role in the innovative modernization of the economy?”

### **Modern Regional Development Policy**

Regional development policy is inextricably linked to approaches to the definition of “region”. In economics, region is defined as a spatially limited part of a single economic complex, i.e. as a structural element of the economic complex of the country [4, 6]. At the same time, it is defined as an economic system that represents the inseparable unity of economic and administrative territorial division of the country, which represents the unity of the economy and its governing bodies [5, 12–13]. Therefore, the region has all the properties of the system: integrity, structure, relative isolation from the environment<sup>1</sup>, and subordination of the entire organization of the system to a specific goal. In turn, the development of the system in general is interpreted as process of its transition from one state to another, which is accompanied by a change in its qualitative and

<sup>1</sup> In this case, environment means those factors that are beyond the system and interact with it (for instance, economic systems of higher hierarchical level).

quantitative characteristics. Moreover, development does not necessarily mean growth, as the system can develop in the absence of growth (in particular, as a result of transition to a new but relatively worse state) [6, 37].

Within the framework of economic geography, regions are considered in terms of natural resources, ecosystems or geographical boundaries. A. Markusen (1987) defines region as a historically evolved, contiguous territorial society that possesses a physical environment, a socio-economic, political and cultural milieu and a spatial structure distinct from other regions and from other major territorial units, city and nation [7, 16–17]. This interpretation recognizes that regions are historically determined, and their development is largely driven by the interaction between people and local natural resources.

In later regional theories, regions (both local and international) are perceived not only as territories or administrative units, but also, first of all, as “living” spaces that are socially and intellectually constructed. Their boundaries are determined not only by geographical categories, but also by a common identity or set of norms and values that are voluntarily shared. Using the category of “human territoriality”, D. M. Smith states that any regional unit is a social construct, the meaning of which should be taken contextually [8, 3]. This approach gave impetus to the formation and dissemination of a systematic approach to the development of innovation among the scholarly research environment: the concept of regional innovation systems [9]; learning regions [10]; and innovation environment [11]; local politicians have been discussing the possibility of implementing the concept of a smart city [12].

In this research, the authors use the above approaches, namely, region is considered as an economic system, the development of which is historically determined, and which differs from other socio-economic, political and cultural environment.

As the approaches to the definition of region transform, the approaches to regional development are modified as well. In the middle of the

last century, “Regional Economics” appeared as a discipline in economics. It had a purely economic basis and focused mainly on how firms operating in the region affected key indicators of its development: employment, gross regional product, and budget revenues. At the end of the 20<sup>th</sup> century, the interdisciplinary component in approaches to regional development grew. Along with economics, political science, sociology, and economic geography became important, as a result of which the focus of regional development was the spatial dynamics of regions as places to work, to live comfortably, and to invest. The population of a region with its knowledge and how it (the population) uses this knowledge is a key focus of regional development researchers. New theories focus on human capital, innovation and spatial dynamics, and demographic change as key components in understanding how regional economies facing global challenges can enhance their competitiveness and create benefits.

Regional development is a broad concept. For example, the Committee on Regional Development Policy of the Organization for Economic Development and Cooperation considers it as a general effort to improve the socio-economic situation in the region, which helps to reduce regional disparities by supporting (employment and wealth creation) economic activity in the regions [13]. In recent decades, most regional development efforts have been concentrated on supporting infrastructure that would strengthen the region’s economic base through large-scale infrastructure development (e.g. roads, ports, airports, railways, communications infrastructure, and resource infrastructure).

Regional development is not a static or deterministic phenomenon, but arises in a dynamic force field, with the emergence of new prospects and many participants and stakeholders [14, 193]. The new approach to regional development is based on more efficient use of public resources, avoidance of redistribution and subsidies for lame-duck regions, for the sake of measures to enhance the competitiveness of all regions on the basis of sustain-

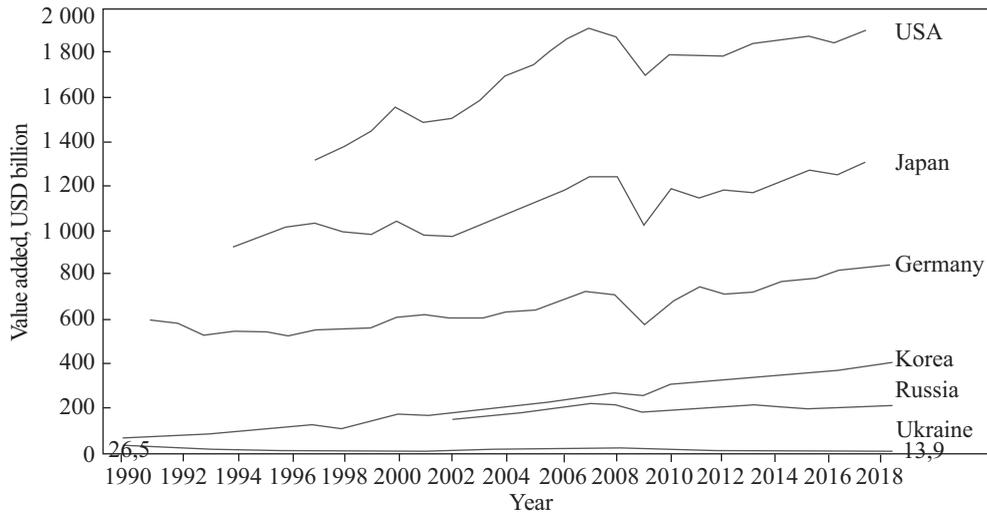


Fig. 1. Value added of processing industry of some world countries, USD billion. Based on [21]

able endogenous growth, the ability to generate resources to solve current problems, decentralization [15, 39].

The key features of the new approach [16–18] presuppose the existence of such development strategies that cover a wide range of direct and indirect factors affecting the efficiency of local firms; focus on regional specific assets rather than on transfers; focus on opportunities rather than on shortcomings or the need for support; a collective and coordinated approach to governance involving national, regional, and local authorities, as well as other stakeholders, with the central government playing a less dominant role. Industrialized countries form a research and innovation policy based on the model of four spirals “power – science – civil society – business,” with innovation ecosystem as the main element [16, 7].

As a result of the implementation of new approach to regional policy in the EU member states and regions, the tool of smart specialization (RIS3 – Research and Innovation Strategies for Smart Specialization) has been introduced. The EU *Strategy for Smart, Sustainable and Inclusive Growth – Europe 2020* states that at the national level, Member States shall reform national (regional) R&D and innovative systems to promo-

te highly efficient development and smart specialization [17, 11].

Smart specialization is the identification of unique functions and assets of each country and region, the emphasis on the competitive advantages of each region, and the focus of regional partners on the vision of future achievements. It also means strengthening the regional innovation system, increasing the flow of knowledge and spreading the benefits of innovation in the regional economy. Since the RIS3 strategy is based on information and systematic assessment of existing regional opportunities to support innovation, a high capacity and competence of regional governments is a necessary precondition for successful implementation and evaluation of the effectiveness of this tool [18, 3; 19].

The nature of regional development and the features of regional development strategies are determined by the specificity of region’s structural and technological configuration.

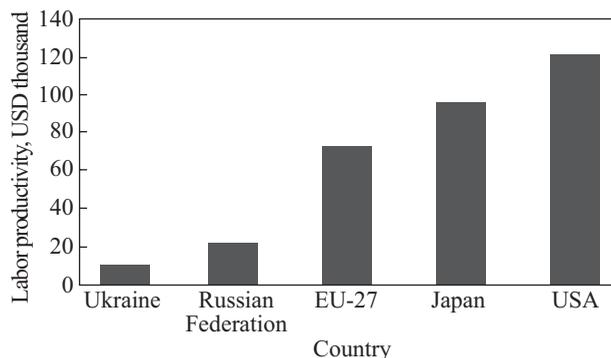
According to the World Bank, in the economy of Ukraine, in terms of gross value added, services (60%) exceed goods (25.9%) and agriculture (14.0%). D. Rodrik called the processes when developing countries (including Ukraine) become services-oriented economies “premature deindust-

rialization” [20, 3]. The deindustrialization of advanced economies, which lasts for decades, is characterized by a steady decline in the share of manufacture in total employment, but at the same time, value added that is created in the manufacture remains high, as evidenced by rising productivity. In Ukraine, along with a rapid decline in the share of labor in the processing industry (in 2000, it amounted to 21.0% versus 16.3%, in 2018), the value added declined from USD 26.5 billion (at fixed prices of 2010), in 1990, to USD 13.9 billion (at fixed prices of 2010), in 2018 (Fig. 1).

In 2017, labor productivity in the processing industry of Ukraine increased by 112.0% versus 2012 [22], but still remained low as compared with growing technological advance in other countries (Fig. 2).

Ukraine’s economy is based mainly on the third and fourth technological stages (metallurgy, chemical, agricultural, petrochemical, outdated power engineering, heavy machine-building), while in the post-industrial economies, the fifth and sixth stages (electronic industry, computing, fiber optics, software, telecommunications, robotics, gas production and processing, information services, nanoelectronics, molecular and nanophotonics, nanomaterials and nanostructured coatings, optical nanomaterials, nanoheterogeneous systems, nanobiotechnology, nanoengineering, and nanoequipment) have been dominating [28, 24]. The technological structure of industrial production in Ukraine consists mainly of activities that, according to the level of knowledge intensity, belong to low (53.2%) and medium-low (35.1%) technologies. This means that almost 9/10 of the technological processes of domestic industry is based on technology of the middle of the last century. Modern high and medium-high technologies provide only 11.6% of industrial production [29, 38].

The industrial structure of the regions of Ukraine has been significantly distorted. Such contradictions as 1) insignificant and even declining share of high-tech products; 2) breach of technological chains of value added because of decline in the manufacture of final products; and 3) en-



**Fig. 2.** Labor productivity in processing industry of some world countries, USD thousand

Source: Estimated and prepared based on [21; 23–26; 27, 81].

hancement of the raw material and semi-finished structure of production have become critical. The expansion of services other than knowledge-based ones against the background of low-tech industries reduces the potential for economic growth and the possibility of approaching the level of income of industrialized innovative economies.

Government policy of regional development is a regional component of all policy areas of the government at the national level (industrial, innovation, budget, power-engineering, social, demographic), and these areas shall be coordinated at the regional level. In modern views, industrial policy is defined as basic platform for security and sustainability of the national economy and is a development policy, insofar as it aims at building production capacity in important economic spheres by exploiting comparative advantages created by both market, price environment or natural circumstances and policies of human capital development on the basis of increasing, first of all, the level of education and achieving success in science, technology, and engineering [30, 10].

### Specific features of development institutions

Modern industrial policy may be realized through the creation and operation of development institutions [30, 10].

Table shows the options for defining the concept of “development institutions.”

**Table. Interpretation of “development institution” definition**

COVID-19 vaccine manufacturers	Funds required for vaccination of adults groups (60+), UAH billion
V. M. Heyets	Development institutions can be used both as organizations and as organizational mechanisms for the introduction of such relations that can ensure the accelerated development of both individual activities and the economy as a whole [30, 10]
Yu. V. Kindzerskyi	Special economic structures created by government at its initiative and under its financial and material support, which are fully or partially state-owned, are considered as a special tool for regulating the economy in priority areas of national interest, designed to ensure their development in the event of market failures, while maintaining the integrity and stability of the entire economic system of the country [31, 278]
O. I. Tatarkin, S. M. Kotliarova	State development institutions are a set of special organizations that are created and funded by government to co-finance (in particular, with the use of credit and guarantee mechanisms) commercial projects and have a high economic or social significance [32, 10]
M. V. Kurbatova, K. S. Sablin	Organizational and economic structures that facilitate the allocation of resources to projects for build new economic growth potential by attracting investment in social and engineering infrastructure, in developing industries, and in human capital, as well as by creating new technologies and promoting business competitiveness [33, 22]
V. V. Bondarenko, M. O. Tannina, V. O. Yudina, T.V. Kharitonova	The development institution is an economic entity that concentrates financial resources and directs them to the development of progressive sectors of the economy, innovation, implementation of social and infrastructure projects [34, 90]
Ye. V. Popov, M. V. Vlasov, M. O. Simakhina	An established form of interaction between economic agents, which results in changes in the state of the system [35, 3]
Ye. M. Buchwald	Development institutions are traditionally understood as organizations separated from public authorities, which concentrate financial, organizational, and other resources of investment policy at the federal and regional levels. These organizations are engaged in dialogue with investors, evaluation, selection, and support of investment projects [36, 108].

Source: author's development.

Summarizing the content of these definitions, it can be stated that development institutions are organizations, mechanisms, tools, and norms of behavior, which ensure the accelerated development of certain activities, regions, economy as a whole in the event of failure of market mechanisms (“market failures”).

Thus, development institutions have all the features that can be attributed to institution [37]:

1) identify those aspects of economic behavior in the cases when the choice is not entirely rational, and the costs and benefits are not only of market origin;

2) structure, limit, and create incentives for individual behavior;

3) establish rules (in the form of any information of a regulation nature) to be followed by people while performing their economic activities;

4) institutions form a certain social order, i.e. structured, repetitive, time-stable interaction between people. The most important is the real patterns of people's behavior rather than rules or sanctions; the institutions are realized in organizations that, in a broad sense, are a form of social order in which and through which people interact while achieving individual and collective goals.

Based on the definitions of development institutions given in Table, development institutions have a broad and narrow interpretation, and their main idea is to create such organizational and economic structures aiming at generating production innovations<sup>2</sup>. The purpose of development institutions is to solve specific tasks in the

<sup>2</sup> Unlike the creation of organizational and economic structures aiming at rent-oriented activities [32].

field of innovation, to provide support at a certain stage of the innovation cycle or a specific industry in the field of scientific technologies, to support areas that are important for the innovation economy, and to participate in innovative projects in priority areas of modernization.

Development institutions, as well as any regulatory regimes, provide stable regulatory environment of the group of public relations [38, 51] at each stage of the innovation cycle. In large countries with different regions, differentiation of regional regulatory regimes is necessary to level the conditions of competition.

The state and local governments determine the specifics of the regime. However, in the informational and psychological aspect, the financial regulatory regime characterizes the degree of its favor for the interests of certain subjects of law, rather than the direction of legal regulation, because it is woven from a variety of combinations of incentives and restrictions [38, 51]. The special significance of stimulating regulatory regimes is determined by the fact that the innovation sector is characterized by the problems of market failures, because technology is a sort of public good. It can be used simultaneously by many corporations. Firms will not spend their money on research and development, since the results can be used by many other firms [39].

However, the nature of technology as a kind of public good is not the only factor that inhibits innovation processes. To understand why economy needs development institutions let us consider research stating the reasons for the lack of innovation [33; 38; 40; 41].

*Motivation of the business owner.* It is known that business owner can get economic profit from the two opposite behavioral strategies: innovative and rental [32; 39]. In the first case, the source of economic profit is innovator's monopoly, because other market players do not have certain competitive advantages. This path is based on the creation of entrepreneurial technological and organizational advantages over other manufacturers. It is associated with known risks of invest-

ment in new technologies and provides more or less broad time horizons of economic planning, as often it may yield returns in a long run (for example, investment in fundamental research) [40, 85]. Otherwise, the entrepreneur creates redistributive innovations. They consist of a combination of official privileges and preferences and increase the welfare of narrow groups of special interests in a monopolized market environment [33, 22–38].

*High transaction costs of innovation.* As a result of investment in strengthening economic power and concealing the mechanisms of profit-making, there appears an economic order that rejects innovation. Even if the owner wants to invest in innovation, he faces a number of obstacles created by the economic order formed by him. This order leads to additional costs of innovation, which undermine motivation for innovation [40, 90].

*Lack of infrastructure for innovation.* For economic modernization through the transition of economy to an innovative path of development, the institutional design of the interaction of all actors in the R&D and industrial spheres through the development of innovation infrastructure is of paramount importance. Ensuring the effective operation of organizations that provide innovation entities with the services necessary for innovation promotes the use of R&D potential. Therefore, the creation of a national innovation system shall be based on the regulatory environment that is favorable to the development of innovation infrastructure that ensures commercialization of R&D products, promotion of these products on the market and their implementation [41, 1306–1307].

Obviously, overcoming these obstacles on the way to the implementation of innovative projects in the priority areas of modernization are the tasks of development institutions. It should be noted that they cannot be effective unless there are basic institutions that guarantee to the entrepreneur “no abuse,” i.e. that in a long run, economic profit from investment in knowledge and, further, investment in new technologies and or-

ganizations will not be confiscated, stolen, alienated based on court decision, etc., and business based on innovative technologies will not be expropriated [40, 86]. These are the so-called “inclusive institutions” at the heart of which is the guarantee of property rights, without which it is impossible to achieve investment activity and to increase productivity. D. Acemoglu and J. Robinson state that guaranteeing property rights, law, public services, and support of freedom of contract and exchange is the responsibility of government and institutions with the ability to keep order, to prevent theft and robbery, and to enforce contracts between individuals [42, 69]. Otherwise, entrepreneurs will give preference to investment in power as the main source of maximizing economic profits and the condition of survival in a world of arbitrariness [40, 88].

### **Regional development institutions**

In the conditions of decentralization, the essence of regions as administrative territorial formations is enriched with functions of qualitatively new content, which are inherent in economic entities. They become not only responsible for the economic development of their territories, but also are endowed with legal and economic principles for their implementation.

Decentralization reform involves the use of various forms and tools, which result in redistributing decision-making powers, financial and managerial responsibilities between different levels of central government and regional bodies; transferring the responsibility for decision-making and administration of government functions to semi-autonomous bodies that are not fully controlled by the central government, but are accountable to it; codifying by law the subcentral authorities entitled to make independent decisions and to take responsibility for their implementation, regardless of the central government, as well as certain functions and powers related to provision of public goods of local importance; creating conditions for uniting, on the basis of long-term agree-

ments, sustainable formations that implement value chains in the economic sphere, based on the use of their competencies. In order to increase their own competitiveness and market supply of a unique product.

As a result of the decentralization reform, there are emerging new entities that, together with existing firms in the regions, create a kind of space. In the framework of institutional theory, modern research proposes to define such a space as meso level. In economic theory, it is common to select micro-, macro- and meso levels, which are distributed on the basis of object characteristics. The micro level focuses on the study of the behavior of individual entities: individuals, households, firms, and entrepreneurs. The macro level focuses on national and supranational economic systems. The meso-level is considered by sociologists as intermediate level that unites clans, the population of settlement structures from village to state, region, republic, etc. [43, 53]. The multi-level world economic system described in [28, 28] has the two levels of meso-economy: integration specialized and regional unions and associations, as well as regional, territorial, sectoral, and intersectoral complexes and associations, financial & industrial groups.

In [44, 9] meso level of the economy is characterized as a system with the separation of the four main components: sectoral mesoeconomics (industries and subsectors of the economy); intersectoral mesoeconomics (intersectoral vertical complexes and suprasectoral complexes such as agroindustrial complex and military industrial complex), regional mesoeconomics (regions, territorial groups of enterprises), and interregional mesoeconomics (territorial socio-economic formations).

The authors of [45] have substantiated the need for meso-level research with the tasks of innovative development. The center of the economic space is the meso level: innovations born in the mesoeconomic environment are more viable, easier integrable into existing socio-economic institu-

tions; due to better penetration into the economy, they demonstrate more examples of effective application and consolidation [45, 9]. On this basis, economists have stated that reforms of the mesoeconomic sphere are the beginning of each new period important for economy.

Therefore, the definition of regional development institutions shall take into account the following factors:

- ◆ modern approaches to regional development, the source of which is the generation of innovations;
- ◆ the leading role of development institutions as stimulating regulatory regimes in solving specific tasks in the field of innovation and supporting the implementation of innovative projects in priority areas of modernization;
- ◆ the statement of mesoeconomic theory, according to which the meso level is the organizational field in which formal norms of behavior are introduced into the historically formed institutional environment.

Proceeding from the above, we can provide the following definition: ***in a broad sense, regional development institutions*** are differentiated regulatory regimes (tax, credit, customs, exchange rate) that at the meso level create conditions for achieving the desired socio-economic status of the system as a whole by motivating regional economic entities to withdraw innovative rent and to direct it to further regional development.

***In a narrow sense, regional development institutions*** are organizations of various organizational and legal forms, which are elements of the regional innovation infrastructure and provide development and support of all stages of the innovation process, while minimizing transaction costs.

Regional development institutions as elements of regional innovation infrastructure can be classified by functional purpose: financial (development banks, venture funds); R&D and educational (research institutes, HEE); organizational and informational (business studios, business incubators, science parks, technology parks, business

incubators, industrial parks, technology parks); special economic zones and territories of advanced development; corporate consulting (industry unions, alliances and associations); and coordinating (regional development agencies).

It is equally important for the research that the approach to the consideration of economic processes from the standpoint of mesoeconomic theory is based on the evolutionary paradigm, according to which the decision-making model in organizations is based on the concepts of limited rationality and routine behavior. Routines are organizational skills that in evolutionary theory play the same role as genes in biological evolutionary theory [46, 14]. They are inherited, determine the subject's possible behavior, and are prone to selection.

At the meso level, the effects of path dependence are studied, a strong dependence on which has been observed in the old industrial regions. The negative factor is QWERTY-effects as a form of path dependence when the worst (as compared with alternatively acceptable) standard that is very hard to change gets implanted, rather than the path dependence in general [47]. In the case of old industrial areas, this is a situation where the structure of production becomes so focused on a particular type of economic activity and the pattern of its implementation that it cannot switch to another path of development in the case of a large-scale change in demand, since costs of changing the path of development (the transformation costs) exceed benefits from possible alternatives (in a short time) [47, 30]. Ways to overcome QWERTY effects are tools that influence the causes that generate these effects. Proponents of institutional theory believe that it is impossible to overcome the negative effects of dependence on the previous path of development. These effects can only be reduced. Old industrial regions have the potential to produce science-intensive products, so QWERTY effects can be reduced by innovative transformations of production facilities.

Within the framework of the paradigm of evolutionary economic geography, the development of new paths in space and time has been studied. Research focuses on the processes of emergence and disappearance of firms and sectors, as well as the role of innovation and co-evolution of firms. The origin of new regional industrial path development is associated with the broad theoretical question about the emergence of new industries in space. Modern studies have shown that new industries are not free to choose locations, as new industrial paths depend on existing ones [48]. Therefore, the location of new industries is not an accidental process. The interdependence between new and existing industrial paths has been demonstrated, for example, by G. Maier and M. Trippel in their research of the current development of industrial region of Upper Austria. The region's economy specializes in traditional industries, including machine-building, metallurgy, manufacture of vehicles and food. However, it is an example for the study of critical conditions and factors that contribute to the development of traditional areas on an innovative basis. In the region, the Hagenberg Softwarepark has been established. It is one of the largest high-tech parks in Austria, which houses research organizations, companies, and educational institutions in the field of information and communication technologies [49].

Rules and norms established at the national level cannot be successfully implemented in the microeconomic environment of regions exclusively by the directive method. These rules and regulations need to be interpreted, adapted, and monitored, with meso-institutions acting as intermediaries responsible for implementing the general rules by formulating specific recommendations and providing feedback from agents who are affected by the rules implementation process [50]. The functional purpose of meso-institutions is to adapt the rules of action and to distribute agents' rights, as well as to notify all stakeholders about the norms and rules that are established. In this case, those regional development

institutions that perform advisory functions, such as regional development agencies, can be considered as meso-institutions.

The meso level is also used as an instrumentally convenient way to describe the processes of institution formation [51–53]. Based on the fact that the main reason for the formation of certain institutions is the desire of economic agents to reduce transaction costs, institutional theory proposes to consider the meso level as a space for institutionalization of rules, where collective attempts are made to overcome uncertainty and to minimize transaction costs. Economists have suggested that the category of meso-institutions may be useful not only for the study of structures that mediate the implementation of new rules “from above”, but also for the analysis of system-forming structures on which the downward and upward movement of formal and informal norms is integrated, which determines their social significance in the process of developing strategies for institutional reforms and transformations [51, 55]. Within this approach, it can be hypothesized that regional development institutions are not only organizations, mechanisms, tools and norms of behavior created by government, but also the results of institutionalization at the meso level of rules developed by a collective of economic entities. This depends on the specific organizational procedures of enterprises, routines that have been created and improved in the past. That is why it is so important to uphold the positions of synthesis of evolutionary and institutional approaches, in particular, to determine in further research the possibilities of forming regional development institutions in old industrial regions in the process of collective attempts to overcome uncertainty and to minimize transaction costs in innovation activities.

## Conclusions

A necessary condition for modernizing the economy on an innovative basis is the creation of appropriate institutions. The implementation of mo-

modern regional development policy aiming at intensifying innovation requires the search for new opportunities through the creation and effective operation of regional development institutions. As part of the study, the authors have tried to develop theoretical and methodological approaches to understanding the essence of regional development institutions.

The difference between the developed approaches is as follows:

1) regional development institutions are proposed to be considered in a broad sense as differentiated regulatory regimes that create conditions for achieving the desired socio-economic status of the system as a whole by enabling businesses to withdraw innovative rents; in a narrow sense, regional development institutions are organizations of various organizational and legal forms, which are elements of the regional innovation infrastructure and provide development and support of all stages of the innovation process while minimizing transaction costs.

2) the issue of creating regional development institutions is included in the field of mesoeconomic research, according to which organizational skills of economic entities or routines are inherited, are subject to variability and selection, with meso level considered as a space for institutionalization of rules where the players make collective attempts to overcome uncertainty and to minimize transaction costs. Following the position of the synthesis of evolutionary and institutional approaches, the authors have hypothesized that regional development institutions are not only organizations, mechanisms, tools and norms of behavior created by government, but also the results of institutionalization of rules developed by economic entities at the meso level. Prospects for further research are to identify opportunities for the formation of regional development institutions in old industrial regions as a result of collective attempts to overcome conditions of uncertainty and to minimize transaction costs in the process of innovation.

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Received 20.05.2020  
Revised 04.06.2020  
Accepted 02.02.2021

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#### ПРО СУТНІСТЬ ІНСТИТУТІВ РЕГІОНАЛЬНОГО РОЗВИТКУ ТА ЇХ РОЛЬ В ІННОВАЦІЙНІЙ МОДЕРНІЗАЦІЇ ЕКОНОМІКИ

**Вступ.** В умовах сучасної промислової революції Україні потрібна реіндустріалізація на засадах інноваційної модернізації, яка неможлива без створення відповідних інститутів.

**Проблематика.** Формування та реалізація сучасної політики регіонального розвитку, яка спрямована за активізацію інноваційної діяльності, вимагає пошуку нових можливостей через створення та ефективну дію інститутів регіонального розвитку.

**Мета.** Обґрунтування теоретичних підходів до розуміння сутності інститутів регіонального розвитку та їхньої ролі в інноваційній модернізації економіки.

**Матеріали й методи.** Використано теоретичне надбання економічного вчення провідних учених з проблем інституційної обумовленості інноваційних процесів. Дослідження базується переважно на інституціональній парадигмі та передбачає синтез інституціонального та еволюційного підходів.

**Результати.** Інститути регіонального розвитку запропоновано розглядати у широкому розумінні як диференційовані регуляторні режими, які створюють умови для досягнення бажаного соціально-економічного стану системи в цілому через надання можливості господарюючим суб'єктам вилучати інноваційну ренту; у вузькому розумінні, інститути регіонального розвитку — це організації різної організаційно-правової форми, які є елементами регіональної інноваційної інфраструктури і забезпечують розвиток і підтримку всіх стадій інноваційного процесу, мінімізуючи трансакційні витрати.

**Висновки.** Висунуто гіпотезу що інститути регіонального розвитку — це не тільки організації, механізми, інструменти й норми поведінки, які створені державою, а й результати інституціоналізації на мезорівні правил, вироблених колективом господарюючих суб'єктів. Подальші дослідження полягають у визначенні можливостей формування інститутів регіонального розвитку в результаті здійснення колективних спроб подолання умов невизначеності та мінімізації трансакційних витрат в процесі інноваційної активності.

*Ключові слова:* регіон, регіональний розвиток, інститути регіонального розвитку, інновації, інноваційна інфраструктура, регуляторний режим.