INTRODUCTION
Modern challenges, transformation processes and restructuring of the socio-economic space under the influence of globalization, information and digital, competitive and security disparities provoke requests to change scientific paradigms, form new or adapt existing concepts of economic development of regions. Many developmental concepts have been formed in economics, especially within the framework of cyclical, innovative and technocratic theories. Existing approaches explain the processes of transformation from the standpoint of factor influence, subject-object relations, the nature of transformations, but their application requires not only adaptation to modern challenges. At the forefront are the tasks of formalizing the impact of mass and availability of information technology, the integration of knowledge in all production and technological processes, as well as trends in human-centeredness and the dominance of services in the formation of income economic systems. Therefore, the search for a new concept of intensification of regional development, which should be based on the use of intellectual and innovative determinants, is relevant.

The aim of the article is to study scientific theories, concepts and approaches to intensify the development of economic systems of regions in terms of activation of intellectual and innovative determinants. To achieve this goal, the authors have identified and solved a number of tasks, which include: highlighted the conditions for the use of intellectual and innovative determinants of intensification of the economic system of the regions; systematized theories of innovative economics and outlined their role in the formation of modern concepts of intellectual and innovative determinants; the importance of intelligence as determinants of intensification of development of regional economic systems is substantiated; the signs of a new concept of intensification of development processes in the regional economic system are determined; the directions of application of efforts necessary for maintenance of efficiency of introduction of the concept of creative economy in regulation of development of economic systems of regions are offered; methodical tools for managing the development of the economic system of the regions on the basis of the concept of creative economy have been developed.

LITERATURE REVIEW
Many leading scientists have devoted their research to issues of innovation and intellectual development, including: Chernyakhovskaya, Nizamutdinov (2019); Dobrenkov, Afonin, Gagarinskaya (2017); Korytko, Bryl, Piletska (2021); Kychko, Zhygalkевич, Treitik (2021); Lazarenko, Kyruchenko, Tulchinskyi (2020); Lebedeva, Egorov, Tsapina, Fokina, Vasilyeva (2015); Lubkov, Alaberdis, Shepelev (2017); May-Boroda, Gorbunov, Gorbunova (2021); Mashnenkov, Derkachenko (2021); Thomas (2020); Vasilieva, Rusina, Bagdasarian, Filimonenko (2020); Vovk, Kostiunik et al. (2021).
The paper is devoted to the consideration of the model of commercialization of intellectual property products in harmonious and integral unity with socio-economic mechanisms based on the best world achievements in this field (DOBRENKOV et al., 2017). The work proves the special relevance of the intellectualization of entrepreneurship. Intellectual entrepreneurship is seen as the result of the integration of science and entrepreneurship and the channel of knowledge transfer between them (LEBEDEVA et al., 2015).

In research modeling the quantitative relationships between groups of factors and the results of innovative development of the region allows to prove the key factors of the chosen innovative development and determine the degree of their impact in the regions based on resources and non-resources, justify differences and identify possible ways of further Growth (VASILIEVA et al., 2020). The scientific work considers the problem of organizing intellectual decision support in the management of innovative projects based on the knowledge base. Scientists (LUBKOVA, 2017) have proved that legal protection and effective management of intellectual property is one of the effective mechanisms of Gazprom’s activity, which ensures the implementation of state policy leading to innovative development of the country aimed at improving economic and financial indicators and the company's image as a modern innovation-oriented business. (CHERNYAKHOVSKAYA et al., 2019).

The scientific work of scientists is devoted to the improvement of the strategy of innovative development of industrial enterprises based on the assessment of the intellectual capital of the enterprise and the development of stages of strategy selection by the method of hierarchical analysis (KORYTKO T. et al., 2021). Author’s consideration of socio-economic systems (MAY-BORODA et al., 2021) in terms of global economic relations has shown the economic benefits of an effective national innovation system. The scientific work of the authors (THOMAS, 2020) are devoted to the importance of intellectual property in the development of an innovative product.

Domestic and foreign scientists have devoted their research to the formation of creative economy, in particular: Arefiev, Tkachenko (2021); Butko, Pishenin (2019); Cerisola, Panzera (2021); Gerosa A. (2021); Hilmana, Soemaryani I., Prasetyo A.R. (2021); Iarmosh O., Prokhorova, Shcherbyna, Kashaba, Slastiyanovka (2020); Ivanova, Samilenko (2020); Ishchelkin (2021); Revko, Garafova (2021); Lazzaro (2021); Londar, Lytvynchuk, Versal, Posnova, Tereshchenko (2020); Potjanajaruwit (2021); Samoilovych, Marhasova (2021); Semenov, Khrapov, Ulchenko (2018); Shevchuk (2021); Tkachenko, Radulovic, Pakhomova, Ustian (2021); Vovk, Saloid, Kostiunik (2021); Yuliaty, Kurniasari, Triyanti, Zulham et al. (2020).

Article aims to define the process of development of the ecosystem of the creative economy of the local area, based on the local culture, which is supported by the competence of human resources of business entities (HILMIANAET al., 2021). In the scientist applies and discusses the concept of overflow as an appropriate theoretical basis for understanding and promoting the value created by university programs in the creative economy paper (LAZZARO, 2021). The research on the innovativeness of the creative economy as an important driver of sustainable development of the world economy is considered (IARMOSHET al., 2020). Article outlines the critical history of the economic imaginary creative economy (GEROSA, 2021).

The purpose of the work is to determine the directions of business education development strategy in the field of creative economy of Ukraine using international experience (TKACHENKO et al., 2021). The main task of the authors’ article is to determine the relationship between investment in human capital and the formation of a creative economy (LONDAR et al., 2020). The study describes the problems of formation of the regional creative economy and provides recommendations for the formation of a mechanism for sustainable development of creative industries in St. Petersburg (SEMONOV et al., 2018).

Using an innovative methodology, which uses a regional production function, an assessment was made using a panel model of fixed effects, econometrically investigated how the cultural activity and creative economy of cities affect the products of their regions (CERISOLA, 2021). The research outlines the roles and influence of each stakeholder in the development of a maritime-based creative economy in the Alor region (YULIATY et al., 2021). The aim of the work is to examine the relationship and impact of operational strategies affecting the
development of small and medium enterprises (SMEs) in creative economy businesses, using a survey as a data collection tool from 196 Thai SME entrepreneurs (POTJANAJARUWIT, 2021).

METHODS
The methodological basis of the study is the cognitive paradigm, which allows on the basis of systematization of theories of regional development to justify the concept of using intellectual and innovative determinants of intensification of economic development of regions in terms of digitalization and creative economy. The study used a systematic approach to developing the concept of using intellectual and innovative determinants of intensification of the economic system of regions, as well as general economic and specific research methods, including: method of analysis and synthesis, induction, monograph and others.

RESULTS AND DISCUSSION
Existing theoretical and methodological concepts are gradually losing relevance primarily due to the transition of socio-economic development guidelines to the introduction of digital technologies, transfer of analytical and informational functions from human to artificial intelligence, intensification of intelligence research from the standpoint of its activation as a means of production and value added. In the modern scientific world, economic research is based on the concepts of post-industrial society of D. Bell and neo-industrial structure of J. Galbraith, reveals the laws of the concepts of information society J. Masuda and F. Mahlup, electronic space M. McLuhan and D. Tapscott. Despite the controversial postulates of these concepts, the relevance of the vector of intellectual and innovative development in the context of digitalization provokes a constant search for methodology and applied tools for their adaptation, adaptation to existing trends.

Regularities of economic development dictate to regional economic systems requests for the formation of intellectual and innovative formations, which requires specific approaches. The conditions for the use of intellectual and innovative determinants of intensification of the development of the economic system of the regions are the following:

- intensification of resource provision and search for forms of stimulation of innovative researches, creation of effective structures of maintenance of innovations and their commercialization;
- formation of mechanisms and institutional assistance to investment and resource support of intellectual growth, accumulation of innovation potential;
- stimulation of private investment and protectionism of investors, while the economic interests of the region should be a priority;
- motivation of energy and resource saving, stimulation of introduction of principles of preservation of natural resources, restoration of environment for preservation of quality of living conditions of the person and potential resource reserves;
- intensification of processes of commercialization and stimulation of diffusion of innovations in the region to ensure uniformity of intellectual and innovative development of the unified economic system;
- Improving the system of local taxes and fees along with the active lobby of economic interests of the region at the national and international levels to attract investment resources, accessibility of innovation and knowledge markets;
- ensuring the quality and relevance of the educational and scientific space of the region;
- increasing the share of high-tech industries in the economic structure of the region, as well as the supporting infrastructure, including training systems for intelligent personnel, energy-efficient innovations and demand for their products.
Thus, in order to use the intellectual and innovative determinants of intensifying the development of the regional economic system, it is necessary to systematically and consistently update the existing economic space, introduce fundamentally new tools of regional institutional regulation and stimulate new intellectual sectors of the economy and increase their innovation potential.

Consider in more detail the scientific concepts of intensification of intellectual and innovative determinants of intensification of economic development of regions. Most development theories are based on the principles of innovative approach, explaining the incentives, patterns and methodology of its implementation (Fig. 1).

**Fig. 1.** Theories of innovative economy and their role in the formation of modern concepts of using intellectual and innovative determinants

<table>
<thead>
<tr>
<th>Concept</th>
<th>Theory of technocratic development</th>
<th>Theory of cyclical development</th>
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<tr>
<td>CONCEPTS:</td>
<td>- technological systems (K. Freeman, K. Perez);</td>
<td>- cyclical crises (K. Marx, A. Gelfand, M. Tugan-Baranovsky);</td>
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<td>- technological gap (JJ Servan-Schreiber);</td>
<td>- “long waves” (M. Kondratiev);</td>
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<td></td>
<td>- technocratic (T. Veblen)</td>
<td>- “cyclicity” (S. Kuznets);</td>
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<td></td>
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<td>- innovation cycle (J. Van Dyne)</td>
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**Innovative Economy**

<table>
<thead>
<tr>
<th>Concept</th>
<th>Theory of innovative development</th>
<th>Theory of diffusion of innovations</th>
<th>Orthodox theory of innovative development</th>
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<tr>
<td>CONCEPTS:</td>
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<tr>
<td></td>
<td>intellectual technologies (F. Hayek);</td>
<td>technological systems (K. Freeman, K. Perez);</td>
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<td></td>
<td>“subversive innovations” (K. Christensen);</td>
<td>technological gap (JJ Servan-Schreiber);</td>
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<td></td>
<td>environmental innovations (K. Bowling, P. Ehrlich, D. Meadows);</td>
<td>technocratic (T. Veblen)</td>
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<td></td>
<td>innovative economy of entrepreneurial type (P. Drucker)</td>
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**Intellectual and innovative determinants of intensification of regional development in the conditions of formation of creative economy**

1. Formation of intellectual capital of the region and innovation potential of its economic system
2. Adaptation of accumulated intellectual and innovative capital to new challenges of transformation of market and resource infrastructure, emergence of new technologies and accumulation of knowledge and competencies in the able-bodied population
3. Changes in the economic space of the region, which provokes the search for a new paradigm, the emergence of new concepts and the formation of new creative approaches to management
4. Formation of intellectual and innovative imperatives in the practice of institutional regulation of regional development in terms of creative and economic, dissemination of newly created concepts and tools

**Source:** Summarized by the authors
Considering in more detail, we can state the key role of innovation in transformation processes and the presence of a strong theoretical basis for describing the innovative development of economic processes. It is worth noting the complexity and completeness of the methodology of innovation theory, which indicates its full implementation in modern institutional imperatives, the practice of managing economic facilities in the regions, as well as a scientifically generated set of variations in the formation, accumulation and implementation of methods of innovation.

An important determinant of the intensification of the development of regional economic systems is intelligence as a factor in the production of goods and services, the object of value accumulation and income generation. Intelligence - in interpretations of knowledge, skills, information, intangible assets - reveals the objectivity of the influence and transformation of the intellectual determinant. Knowledge and experience have a unique property to accumulate, and with the advent of digital information technology and the globalization of communications - there is a new, sustainable property of intelligence: its instant spread and accessibility to the masses.

This characteristic creates new business conditions - information becomes a tool to stimulate markets and consumers, is the object of purchase and sale, sales technology and the formation of social needs. The described new trends create new competitive advantages and new products that require constant search for new technologies, ideas for visualizing needs and information, creating channels for the dissemination of new information and digital products.

Thus, there are new structures and superstructures in the architecture of the economic system of the region. A creative, non-standard approach to ensuring the adaptation of the economic system to the transformation of space requires the introduction of a new concept - creative, which is based on the activation of intellectual and innovative determinants of intensification of economic development. The author’s vision of the proposed methodological tools for managing the development of the economic system of the regions on the basis of the concept of creative economy is presented in Fig. 2.
Fig. 2. Methodical tools for managing the development of the regional economic system on the basis of the concept of creative economy

Source: Built by the authors

The initial and basic determinant of the creative concept of economic intensification of regional development are methods and tools for regulating the intellectual level and the effectiveness of its implementation in the processes of commercialization of innovative technologies. The use of intelligence as a resource of economic development is expressed in many formations - it is the knowledge and competencies of man, and intangible assets in the interpretation of their value and value, and digitized technologies of possession and development of information. Such forms of expression of the economic properties of human intelligence must always accumulate, persist and adapt to the challenges of developmental processes.
In the concept of creative economy, it is not material resources that become an economic asset and an object of increasing productivity, but the key role is given to intelligence and the results of its application. At the same time, a person’s creativity depends not only on his education or experience, but the primary stimulus to economic development is also intrinsic motivation, non-standard thinking and innovative solutions. Thus, a "creative class" of staff is formed, which includes innovation-oriented and highly educated employees. The formation of a "creative class" of the working population is the result of investing in the educational and information sectors of the region's economy, the use of intellectual space in the training of future professionals and their involvement from the first professional steps in development processes. This creates the conditions for human self-realization and its motivation to creatively create non-standard and effective solutions. Therefore, the key role in modern transformations of the methodology of development of the economic system of the region is played by motivation and human potential to create creative ideas, products and approaches to management.

Creative economy, as an environment for the use of intellectual and innovative determinants of regional development, forms both new economic incentives and causes new demands for the formalization of theoretical foundations, methodological tools of regulation and motivation. After all, not only knowledge and information determine the direction and effectiveness of regional development. The effectiveness of achieving the set strategic guidelines for the transformation of the regional economic space is ensured by the level of human knowledge and its ability to apply the received information in a non-standard and creative way. In order to formalize the basic principles of the creative economy in the methodological support of the intensification of development processes in the regional economic system, we describe the features of the new concept:

- transformation of intangible resources, such as knowledge, information, intelligence, into the dominant factor of production and economic development;
- constant expansion of economic opportunities of the regional space due to the generation of new technologies, products, solutions with an emphasis on their information and digital nature;
- dominance in the structure of the economic space of the service sector, especially in the sectors of intellectual capital and the creation of new technologies;
- globalization of communications, which is ensured by the growth of information-intensive markets, the growth of turnover in electronic markets;
- dominance of virtualized channels of resource allocation: areas of technology and goods operate through Internet sales and transport and logistics networks;
- human-centered society, economy and law;
- actualization of network, organically built integrated structures on the forms of economic systems, which provoked the dominance of freedom and equality of economic relations over administrative-command and even functional models of regulation of the regional economy.

Creative economy as a methodological basis for intensification of economic development of the regional space directs regulatory influences on the activation of intellectual and innovative determinants in the processes of creating competitive products and technologies of its production, sale, as well as the formation of value and value. Therefore, to ensure the effectiveness of the implementation of the concept of creative economy in regulating the development of the economic system of the region it is necessary:

- to form the infrastructure and conditions for the creation of new knowledge, their testing and dissemination, which is provided by an effective educational and scientific system of the region;
- to ensure the level of education and competence of the population of the region for the perception of able-bodied people of new technologies, the ability to generate and commercialize them;
• to reconcile disparities between existing technologies and new ones, to minimize losses both in the scale of working capacity of the population and its competitiveness in foreign labor markets, and in the costs of energy and resource supply.

• to increase opportunities and the level of motivation of the population to participate in the economic growth of certain territories, the creation of new technologies and the formation of intellectual and innovative potential.

CONCLUSION
In the context of global informatization and digitalization of social processes, the priority of management in the regional economy is to ensure sustainability and adaptability, efficiency and competitiveness. The formation and formation of the concept of creative economy is provoked by existing trends in the intensification of the economic system of the regions, as well as patterns of activation of intellectual and innovative determinants. Therefore, the main tool, means of production is the human intellect and its ability to commercialize. Thus the main methodological provisions of the concept of creative economy of regions are formed.

The scientific novelty of this study is the proposed concept of using intellectual and innovative determinants of intensification of economic systems of regions in terms of digitalization and formation of creative economy, which is based on identifying conditions for using determinants, systematization of theories of innovative economy based on the concept of creative economy.

Further research on the processes of using intellectual and innovative determinants of regional economic development should be aimed at formalizing the applied tools and regulatory imperatives, which will ensure the sustainability and effectiveness of the implementation of strategic guidelines for the transformation of the economic space.

REFERENCES


Concepts of the activation of intellectual and innovative determinants for the development intensification of regional economic systems

Conceitos de ativação de determinantes intelectuais e inovadores para a intensificação do desenvolvimento de sistemas econômicos regionais

Conceptos de activación de determinantes intelectuales e innovadores para la intensificación del desarrollo de sistemas económicos regionales

Resumo
O artigo considera padrões modernos de desenvolvimento da economia regional, que requerem a formalização de novas ferramentas metodológicas para melhorar o desenvolvimento. A análise de teorias e conceitos de intensificação do desenvolvimento econômico regional possibilitou distinguir teorias de desenvolvimento inovador, difusão de inovações e teoria ortodoxa das inovações baseada nos conceitos de desenvolvimento tecnocrático e cíclico. Com base nas teorias descritas, formula-se a sequência de adaptação de conceitos à teoria da economia criativa. Baseia-se no fato de que o fator e recurso do desenvolvimento moderno dos sistemas econômicos regionais é a inteligência. Para garantir a efetividade do conceito de economia criativa na regulação do desenvolvimento da economia da região, é necessário criar infraestrutura e condições para a criação de novos conhecimentos e tecnologias inovadoras, para garantir a educação e competência da população para gerar e comercializar criatividade e motivação para participar do crescimento econômico.


Abstract
The article considers modern patterns of development of the regional economy, which require the formalization of new methodological tools to enhance development. The analysis of theories and concepts of intensification of regional economic development allowed to distinguish theories of innovative development, diffusion of innovations and orthodox theory of innovations based on the concepts of technocratic and cyclical development. On the basis of the described theories the sequence of adaptation of concepts to the theory of creative economy is formulated. It is substantiated that the factor and resource of modern development of regional economic systems is intelligence. To ensure the effectiveness of the concept of creative economy in regulating the development of the region’s economy, it is necessary to create infrastructure and conditions for creating new knowledge and innovative technologies, ensure education and competence of the population to generate and commercialize creativity and motivation to participate in economic growth.

Keywords: Concepts of economic development. Intellectual and innovative determinants. Creative economy. Regional economic system.

Resumen
El artículo considera patrones modernos de desarrollo de la economía regional, que requieren la formalización de nuevas herramientas metodológicas para potenciar el desarrollo. El análisis de teorías y conceptos de intensificación del desarrollo económico regional permitió distinguir teorías de desarrollo innovador, difusión de innovaciones y teoría ortodoxa de innovaciones basadas en los conceptos de desarrollo tecnocrático y cíclico. Sobre la base de las teorías descritas se formula la secuencia de adaptación de conceptos a la teoría de la economía creativa. Se fundamenta que el factor y recurso del desarrollo moderno de los sistemas económicos regionales es la inteligencia. Para asegurar la efectividad del concepto de economía creativa en la regulación del desarrollo de la economía de la región, es necesario crear infraestructura y condiciones para la creación de nuevos conocimientos y tecnologías innovadoras, asegurar la educación y competencia de la población para generar y comercializar creatividad y motivación para participar en el crecimiento económico.