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SUSTAINABLE DEVELOPMENT-BASED APPROACHES TO URBAN RECOVERY AND PROSPERITY

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Yashchenko O. F., Kubanov R. A., Makatora D. A. Sustainable Development-Based Approaches to Urban Recovery and Prosperity

The study found that a comprehensive approach based on sustainable development is needed to rebuild cities after conflict or war. The process of rebuilding and developing can be lengthy, but it's important to ensure that the city develops in a harmonious way, considering economic, social and environmental aspects. Important trends towards sustainable urban development and ensuring its economic, social and environmental sustainability are reflected in modern approaches to urban development. This means that urban planning and regeneration should consider not only material aspects, but also socio-cultural and environmental factors that affect the quality of life of those living in the city and the overall development of the city. Innovative technologies, energy efficiency, green building and social aspects are key to the improvement of infrastructure and quality of life in regenerated cities. The introduction of the latest technologies, which are important for the sustainable development of cities and their future viability, helps to reduce waste, rationalise the use of resources and preserve the environment. It is important to note that green cities are an important component of sustainable development in the modern world. These green city models are a valuable reference point for Ukraine and other countries in planning and implementing environmental initiatives in the urban environment. Approaches to creating green and sustainable cities vary. However, they all aim to ensure the quality of life of residents and the economic development of regions. It is important to bear in mind that green cities have the potential to improve the quality of life of the population, to contribute to the preservation of the environment and to the sustainability of the urban environment. Living and working conditions in cities can be gracefully improved and contribute to sustainable development at various levels by implementing effective development strategies inspired by these models. The study confirms that through the development of infrastructure and social initiatives aimed at creating a comfortable and safe environment for living and personal development, it is possible to improve the quality of life of city residents. In order to support sustainable urban development and improve the lives of residents, it is important to continue research in this area and to put the found approaches into practice. As a result of the study, recommendations have been developed to implement certain positions and conceptual approaches in the practice of urban renewal and development to create sustainable, cost effective and comfortable conditions for residents. The recommendations cover important areas such as innovative technologies, sustainable development, social aspects, getting the local community involved and financial stability. Applying these recommendations will help create cities that are environmentally friendly, energy efficient and liveable for their inhabitants.

Keywords: sustainable development, urban regeneration and development, conceptual approach, urban infrastructure, social and economic opportunities, economic recovery.

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Ященко О. Ф., Кубанов Р. А., Макаторо Д. А. Концептуальні підходи до відновлення та розквіту міст на засадах сталого розвитку

У дослідженні було виявлено, що відновлення міст після конфліктів або війни є складним завданням, яке потребує комплексного підходу на засадах сталого розвитку. Тривалість процесу відновлення та розвитку може бути значною, але важливо забезпечити гармонійний розвиток міста, приділяючи увагу економічним, соціальним та екологічним аспектам. Сучасні концептуальні напрями в розвитку міського планування відображають важливі тенденції, спрямовані на сталість розвитку міст і забезпечення їхньої економічної, соціальної та екологічної стійкості. Це означає, що при плануванні та відновленні міст потрібно враховувати не лише матеріальні аспекти, а й соціокультурні та екологічні фактори, які впливають на якість життя мешканців та загальний розвиток міста. Інноваційні технології, енергоефективність, «зелене» будівництво та соціальний аспект відіграють ключову роль у вдосконаленні інфраструктури та поліпшенні якості життя у відновлених містах. Упровадження

новітніх технологій сприяє зменшенню відходів, раціональному використанню ресурсів та збереженню довкілля, що важливо для сталого розвитку міст і забезпечення їхньої життєздатності в майбутньому. Слід зазначити, що екологічні міста є важливим компонентом сталого розвитку в сучасному світі. Розглянуті моделі екологічних міст надають цінний орієнтир для України та інших країн у плануванні та реалізації екологічних ініціатив у міському середовищі. Підходи до створення екологічно чистих і стало розвинутих міст варіюються, проте всі вони спрямовані на забезпечення якості життя мешканців та економічного розвитку регіонів. Важливо враховувати, що екологічні міста мають потенціал поліпшити життя населення, допомогти в збереженні навколишнього середовища та сприяти сталості міського середовища. Запровадження ефективних стратегій розвитку, інспірованих моделей, може граціозно поліпшити умови проживання та праці в містах і сприяти досягненню сталого розвитку на різних рівнях. Проведене дослідження підтверджує, що підвищення якості життя мешканців міст можливе завдяки розвинутому інфраструктурним і соціальним ініціативам, які спрямовані на створення комфортного та безпечного середовища для проживання та розвитку індивідуальності. Важливо продовжувати дослідження в цьому напрямку та впроваджувати знайдені підходи в практику для підтримки сталого розвитку міст і поліпшення життя мешканців. У результаті дослідження було розроблено рекомендації щодо впровадження окремих позицій і концептуальних підходів у практику відновлення та розвитку міст з метою створення стійких, економічно ефективних і комфортних умов для мешканців. Зроблені пропозиції стосуються таких важливих напрямків, як інноваційні технології, сталий розвиток, соціальні аспекти, участь місцевих громад і фінансова стабільність. Використання цих рекомендацій сприятиме створенню міст, які є екологічно чистими, енерго-ефективними та сприятливими для життя мешканців.

Ключові слова: сталий розвиток, відновлення та розвиток міст, концептуальні підходи, інфраструктура міста, соціально-економічний потенціал, відновлення економіки.

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The relevance of the issue of post-war urban reconstruction is an integral part of modern reality. After a war or conflict, it is important to restore not only the physical infrastructure of a city, but also its socio-economic potential. In order to rebuild its economy and improve the quality of life of its citizens, Ukraine, as a country emerging from war and conflict, needs an active process of urban reconstruction and modernisation.

The development of conceptual approaches to post-war urban regeneration is driven not only by the need to reconstruct destroyed objects, but also aims to create a sustainable and diverse urban environment that meets the needs of modern society. Territorial planning, architectural solutions, urban management and other aspects aimed at achieving effective and sustainable urban reconstruction are included in the conceptual approaches to urban renewal.

Given the Ukrainian reality, it is important to analyse different conceptual approaches to urban regeneration and how they affect the development of Ukrainian

cities. In order to improve the process of urban regeneration, learning from the experience of countries around the world can provide valuable insights and solutions for the Ukrainian government and local authorities to implement. It should also be emphasised that conceptual approaches to urban regeneration include consideration of infrastructure, housing, transport, health care and other aspects that are important for the creation of a favourable and comfortable urban environment for people's living and development.

By studying and analysing different urban regeneration approaches, a strategy can be developed that considers the needs and opportunities of a particular city or region, contributing to its sustainable development and improving its inhabitants' quality of life.

In the works of Ukrainian and foreign scientists various aspects of this problem have been studied and presented, e. g. H. Osychenko [1]; K. Kovalchuk [2]; R. Lutsiv [3]; N. Pylypenko [4]; O. Kononenko [5]; L. Duda [6]; V. Kozyuk, O. Dluhopolskyi, Yu. Haida [7]; O. Liakhovych, A. Protsiuk [8]; S. Kudria [9]; O. Ru-

dych [10]; A. Bilyk [11]; G. Duhinets, N. Kolodko [12]; O. Stupnytskyi, I. Shvets [13]; V. Omelianenko [14]; S. Ivanov [15]; A. Kasych [16]; A. Plaksun [17]; G. Slozanska [18]; O. Livandovska [19].

The *purpose* of the study is to analyse and present the theoretical and applied positions on the conceptual approaches to the renewal and prosperity of cities based on the principles of sustainable development that exist in the scientific field. The aim of the research is to examine innovative approaches to urban planning, energy efficient technologies, green building and other aspects that contribute to sustainable urban development. The study will result in recommendations for implementing these approaches in urban renewal and development practice to create sustainable, cost effective and comfortable conditions for residents.

The regeneration of post-war cities is a complex and multifaceted process that requires a comprehensive approach that takes into account a variety of factors: geographical, architectural, economic, sociological and environmental. Each of these factors has been identified in the scientific literature as the basis for a separate approach.

Geographical approaches to urban regeneration are based on a detailed analysis of the geographical characteristics of an area. These can be crucial for successful urban regeneration and sustainable development.

Examining the risks of a repeat offensive and developing security strategies is one of the key aspects of geographic approaches. Through the analysis of a city's geographical location, it is possible to identify its vulnerabilities and develop measures to strengthen its defence capabilities and the protection of its inhabitants in the event of a possible conflict. Assessing the city's transport infrastructure is another important element of geographical approaches. The restoration and development of transport links is essential to ensure the efficient functioning of the city, the movement of people and goods, and its connection with other regions.

The economic potential of the city and the demographic situation are also taken into account in geographical approaches. An analysis of economic opportunities helps to identify priority areas for development. The study of demographic data makes it possible to predict the needs of the population and to take them into account in the urban renewal process. In addition, potential threats that may arise in the future can be considered through a geographical analysis of natural factors such as climate and geological structure. For example, climate change poses an increased risk to people, capital (economy) and the environment. Climate change risk assessment is one of the most important foundations of any adaptation strategy, as it can help the developers of an action programme to select

and implement the best solutions [10, p. 14]. Considering these factors helps to develop specific measures to minimise risks and increase the city's resilience to natural disasters.

Geographical approaches are an integral part of the development strategy to create a safe, stable and prosperous environment for residents in post-conflict urban reconstruction. More effective and sustainable post-war urban reconstruction can be achieved by considering all aspects of geography, thus contributing to sustainable development.

An important part of the strategy for developing and improving the urban environment after war or conflict are architectural approaches to urban regeneration. These approaches cover various aspects with the aim of the creation of a safe, comfortable and efficient city, suitable for the life and development of its inhabitants.

Choosing an architectural style that reflects the history and culture of the city, while at the same time meeting modern spatial and architectural requirements, is one of the key aspects of the architectural approach. It is important to carefully choose a style that reflects the uniqueness of the city. It should also contribute to its further development. In addition, it is very important to take into account the specific features of the architectural composition. In particular, architectural composition is theoretically regarded as a natural and optimal combination of volumes and spaces into a single harmonious architectural form that meets the work's purpose, natural and social conditions, and expresses its ideological and artistic content [1, p. 7].

Architectural objects can be considered as open systems that are in interaction with the environment and can adapt to changes. An object can respond effectively to new conditions and requirements that arise over time through the flexibility of its elements and connections. This flexibility can be achieved by using transformations when designing and constructing the facility [2, p. 218]. The ability of architectural objects to evolve themselves is one of the main advantages of flexibility. This means that without constant external intervention, the object can provide itself with the ability to adapt to future changes in the environment. This self-development can take place in unpredictable directions, as the object is able to respond to new circumstances and influences in unexpected ways.

In the design of an architectural object, it is important to be aware of latent properties that may be activated in the future. This means that when making design decisions, it is necessary to consider not only current needs and conditions, but also the possibility of future changes and developments. Incorporating la-

tent properties allows the object to adapt to new situations that may arise in the future.

The creation of different scenarios for the development of architectural objects can be based on the development of architectural objects as open systems. In other words, an object can have different modes of self-development that can be determined by interaction with the environment and consideration of changes in it. This approach makes it possible for us to create unique and effective architectural solutions that are capable of adaptation and self-development. The consideration of flexibility and self-development of architectural objects is an important step in the creation of cities that can effectively respond to the challenges of the present and the future. This makes it possible to create sustainable and innovative structures which provide comfort and security for those living and which meet the requirements of sustainable development.

Furthermore, to ensure the quality and durability of buildings and infrastructure, the use of appropriate materials and modern technologies is essential. The choice of materials, which will contribute to the creation of a sustainable and aesthetic urban environment, should be justified with due regard to environmental, aesthetic and technical requirements. The consideration of engineering solutions and technical parameters in the process of urban regeneration is an important element of architectural approaches. Effective planning and implementing of engineering works allow to ensure the safety and sustainability of urban structures in the future [11, p. 231–232]. Reconstruction of public spaces and squares, which contributes to the restoration of social society and creates favourable conditions for communication and interaction of residents, is another important component of architectural approaches.

In general, in the process of restoring and developing the urban environment, architectural approaches to urban renewal are a key element. With proper planning and implementation, it is possible to create an architecturally attractive and functional city that meets the needs and expectations of its residents.

The economic aspects of urban reconstruction after war or conflict are the key ones to the process of recovery and development of urban areas. Successful urban regeneration requires effective economic approaches that provide the financial resources to rebuild and modernise.

International assistance and attracting investment are becoming important factors in helping to finance urban regeneration. This can include private investment in local projects as well as grants from international organisations or donor countries. Attracting foreign investment can make a significant contri-

bution to the economic recovery of cities and regions [15, p. 85].

The use of environmentally friendly technologies and energy efficiency is a key aspect of sustainable urban development. This not only contributes to the conservation of resources, but also to the reduction of environmental impacts and the improvement of the quality of life of city residents. During the regeneration process, it is important to develop and implement such technologies. It is also important to involve local communities and entrepreneurs in the planning and implementation of regeneration projects. This not only involves the public in important decisions, but also helps to ensure that the needs and interests of the local population are taken into account. The economic outcomes of reconstruction can be improved and resources used more efficiently through dialogue and cooperation with the public. In particular, regions will need to develop recovery strategies tailored to their remaining potential, given the existing differences in the way they have functioned since the war. There will be significant differences between regions in terms of the resources available, the attractiveness of investment and the potential for recovery [16, p. 58].

Going forward, it should be noted that ensuring the sustainability of funding for urban reconstruction plays an important role in developing them. Effective financing mechanisms are key to the successful implementation of rehabilitation projects and programmes, not only covering current costs but also creating opportunities for future development and urban upgrading. Securing stable, long-term funding is essential to ensure the sustainability of urban regeneration projects. The development of appropriate financing strategies will provide support not only during the regeneration phase, but also in later stages of their development. This will contribute to sustainable growth and improved quality of life for citizens. There is a need for the active introduction of innovative financial instruments that will be able to attract not only public but also private investment in urban regeneration. Working with international financial institutions and developing partnerships with the business community will create a sustainable financial base for further urban development and transformation to benefit all residents [13, p. 107–110].

A successful model for post-conflict reconstruction should be based on a comprehensive approach. It should take into account the specificities of the global economic environment and the dynamics of international relations. In addition, it is important to have an analysis of one's own country's socio-economic indicators in the context of global trends. Ukraine needs to use a wide range of tools and mechanisms that consid-

er both local and global development trends in order to ensure effective post-conflict recovery and development. An integral part of such a strategy is the maintenance of internal stability, the attraction of appropriate resources and the promotion of socio-economic recovery in the face of changes in the international arena [12, p. 59].

Sociological approaches play a key role in identifying the social problems that arise in the process of urban recovery after war or conflict. These approaches make it possible to analyse the state of public opinion, to identify the needs of the local population and to determine the priority areas for action in the field of social reconstruction [17, p. 93]. Government and local communities can interact effectively and solve social problems together through the involvement of sociological research.

Without the active participation of the public in the regeneration process, successful urban regeneration is impossible. The effectiveness of tackling social problems can be increased by involving citizens in social support programmes and developing joint urban development strategies. It also helps to identify the different needs and interests of different segments of the population. This makes it possible to develop more targeted programmes and measures to improve the social situation of residents [18, p. 6]. Ensuring equal access to resources and opportunities for all local communities is an important component of sociological approaches. This includes the creation of conditions for the participation of all sections of the population in decisions on the economic and social development of the city. This may include the creation of opportunities for self-realisation and professional development, as well as various support programmes for vulnerable groups.

Sociological approaches help to identify social problems that may become barriers to successful urban regeneration. Programmes and strategies to improve the social situation and ensure a level playing field for the development of all members of the community can be developed by analysing the needs and priorities of residents. An important element is ongoing monitoring and evaluation of the effectiveness of social programmes. This enables strategies and measures to be adjusted in time. In the process of urban regeneration, it should be noted that sociological research and approaches should be integrated into all areas of activity. The aim is to have a comprehensive analysis of social problems and the development of effective solutions for the stabilisation of the socio-economic situation in the city.

Environmental approaches play an important role in creating a safe and sustainable environment for residents in the process of post-war urban reconstruction. Ensuring environmental safety in the city, which

affects people's quality of life, their health and the environment in general, is one of the key tasks during reconstruction. Ecological approaches are an important contribution to the prevention of negative impacts on nature and the reduction of pollution risks during the urban reconstruction process.

Green cities, for example, are an important step towards sustainable development and the protection of the environment. They can be classified according to various criteria. These include size, location, innovation and development methods. Let's have a look at five models of eco-cities around the world.

Large-scale eco-city projects developed in large countries with financial resources and scientific potential are the first model. The city of Masdar in the United Arab Emirates is an example of such a project. The aim of such cities is the introduction of innovation and the creation of a sustainable environment [3, p. 67].

Eco-cities built alongside large economically developed cities are the second model. These cities are in a state of instant development, in accordance with their geographical location and individual orientation. Examples of this are the satellite city of Great City in China and the smart city of Songdo. They use innovative technologies and programmes to improve residents' quality of life and protect the environment [4, p. 272].

The third model, explained by the obsolescence and inefficiency of the housing stock, is the ecological reconstruction of existing urban areas. Examples include the Woban eco-neighbourhood in Germany, the Austenborg eco-city in Sweden, and eco-districts in various European countries. The aim of these projects is the creation of a more efficient and environmentally friendly urban environment [5, p. 24].

The fourth model is the creation of small eco-settlements in ecologically clean areas. These are based on the principles of environmental ethics. Examples are the Findhorn eco-settlement in Scotland and the Amatciems eco-settlement in Latvia. These settlements are designed to create a natural environment for those who live there [6, p.155].

Building large cities with high levels of economic efficiency, social standards and environmental sustainability is the fifth model. Examples of cities of this type are San Francisco, Vancouver and many others. These cities strive to make it comfortable and environmentally friendly for those living there to live and work. It should be noted that welfare economics [7, p. 8] is the branch of Western economics that studies the problems of economic efficiency of the market and the social attractiveness of alternative economic solutions, outlining ways to increase social utility. In this way, ecology and the economy are closely linked.

One of the ways to ensure the environmental safety of the city is the creation of an environmental infrastructure that contributes to the preservation of natural resources and the minimisation of negative environmental impacts. Strengthening the ecological balance of the city and improving the quality of life for its inhabitants can be achieved by developing green areas, city parks and environmentally friendly car parks. It is also important to use energy-efficient technologies and materials in the construction and renovation of residential buildings. This reduces CO₂ emissions and energy consumption.

Green building is also an important part of a sustainable approach to the regeneration of urban areas. This means reducing the environmental impact of construction and creating healthy and comfortable living conditions for residents through the use of environmentally friendly materials and energy-efficient heating and air-conditioning systems. It is important to consider not only environmental but also social aspects of such construction, including providing housing for all social groups [19, p. 105].

Close cooperation between local authorities, the public and experts in the field of ecology and sustainable development is necessary for the successful implementation of environmental approaches to urban renewal. Positive results in creating environmentally safe and sustainable conditions for city residents can only be achieved with the support of all parties and joint efforts. In addition, it is important to monitor the environmental performance of the city on an ongoing basis and to respond to any negative phenomena in a timely manner in order to maintain environmental sustainability.

In general, a key condition for ensuring the quality of life of residents and preserving natural resources for future generations is the implementation of environmental approaches in the urban renewal process. More sustainable and harmonious development can be achieved, environmental crises can be avoided and the natural environment can be preserved for future generations by paying attention to the environmental aspects of urban development.

An integrated approach combining modern technologies, environmental sustainability, spatial compactness and social inclusion is the basis of urban development today. This integrated approach makes it possible to create cities that are efficient, that are pleasant to live in and that contribute to the sustainable development of society. It should be noted, however, that conceptual approaches to urban development are in a state of constant change and improvement, as society's conditions and needs are constantly evolving. The current state of development of urban planning concepts

can be divided into several main directions. These reflect current trends in the field.

The first direction includes the development of conceptual approaches that are aimed at the sustainable development of cities. This involves focusing on using technology and innovation to ensure the economic, social and environmental sustainability of the city. In order to improve the quality of life of residents and reduce the negative impact on the environment, it is important to improve energy-efficient technologies, promote the use of environmentally friendly materials, develop renewable energy systems and introduce smart technologies [20, p. 167].

To ensure an integrated approach to sustainable development, the development of the city's infrastructure in line with the principles of sustainable development focuses on the use of innovative technologies. The main challenges to be addressed through innovative solutions are to increase the efficiency of resource use, reduce the negative impact on the environment and improve the living standards of the inhabitants. Technology, which enables us to optimise processes and reduce resource consumption, is a key tool for achieving these goals.

The use of energy efficient technologies is an important aspect of the city's infrastructure development. Improving the energy efficiency of buildings, the implementation of energy management systems and the reduction of energy costs will not only save money, but will also reduce greenhouse gas emissions. In order to optimise the use of energy resources and improve the quality of life for residents, the development of energy efficient technologies is an integral part of sustainable development.

The use of environmentally friendly materials is another innovation in urban infrastructure development. The introduction of such materials in the construction sector and in other areas helps to reduce the emission of harmful substances into the environment and to improve the quality of the air in the city. In creating a healthy and environmentally safe environment for city residents, the use of environmentally friendly materials plays an important role. Another important component of sustainable urban development is the development of renewable energy systems. Reducing dependence on traditional energy sources, improving energy security and reducing greenhouse gas emissions can be achieved through the use of renewable energy sources such as solar, wind and hydropower. Developing renewable energy helps to develop new economic sectors, creates new jobs and contributes to the growth of sustainable urban development [21, p. 39].

Improving the comfort of residents and optimising the management of urban resources can be

achieved through the introduction of smart technologies in cities. Costs can be reduced, efficiency increased and the quality of life of residents improved by using intelligent systems to manage transport, lighting, water supply and other municipal services. By aligning the needs of the city with the requirements of sustainable development, the introduction of smart technologies in the city contributes to the development of infrastructure and improves the quality of life of citizens.

Developing the city's infrastructure in line with sustainable development principles is the second area. Creating an infrastructure that helps to conserve resources, reduce pollutant emissions and improve the quality of life for residents is the main objective. This includes the development of spatial planning, the promotion of public transport, the creation of comfortable conditions for pedestrians and cyclists, and the development of environmentally friendly facilities in the city.

One of the key areas for improving modern urban areas is the development of urban infrastructure in line with the principles of sustainable development. The creation of a more efficient and environmentally balanced infrastructure contributes to the conservation of natural resources, the reduction of emissions and the improvement of the quality of life of city residents. This includes developing spatial planning, supporting public transport, creating comfortable conditions for pedestrians and cyclists, and developing environmentally friendly facilities in the city.

Spatial planning, taking into account the needs of residents and the environment, is one of the most important aspects of urban infrastructure development. Improving the quality of life for residents, ensuring access to different types of services and creating a harmonious urban environment can be achieved through the efficient location of residential, commercial, industrial and green areas.

Another important aspect of sustainable urban development is the promotion of public transport. The development of public transport systems contributes to the reduction of harmful emissions into the atmosphere, the reduction of traffic congestion and the reduction of the use of private cars. The city can be made more environmentally friendly by expanding the public transport network, introducing environmentally friendly modes of transport and improving passenger comfort.

One more important element of developing a city's sustainable infrastructure is creating comfortable conditions for pedestrians and cyclists. Parking facilities for bicycles, cycle lanes, pedestrian zones and cycle paths allow city residents to choose a more environmentally friendly mode of transport and to maintain a healthy lifestyle. Such measures contribute to a reduction in the use of motor vehicles, to an improve-

ment in air quality and to a reduction in the negative impact on the environment.

Developing environmentally friendly facilities in the city, such as modern, energy-efficient buildings, renewable energy facilities and efficient waste management systems, is also an important step in creating a sustainable and environmentally friendly environment for those living in the city. Reducing the negative impact of human activities on the environment and promoting the development of the city as a harmonious and comfortable place to live can be achieved by introducing the latest technologies and approaches [22].

The third area is to develop approaches aimed at taking measures to reduce CO₂ and other pollutants in the city. In order to achieve this goal, innovative approaches are needed in the transport, energy and other sectors of the economy to ensure the efficient use of resources and the transition to renewable sources of energy. Developing technologies and energy efficient solutions is important to support sustainable urban development.

It is necessary to introduce innovative technologies and approaches on a wider scale to address the problem of CO₂ emissions and other pollutants in the city. The transition to renewable energy sources, which will reduce dependence on coal and other emissions, is one of the key strategies. The development of solar, wind and hydroelectric power plants can be an effective means of emission reduction and sustainable urban development [9, p. 11]. In order to reduce CO₂ emissions and improve the environmental situation in cities, energy-efficient solutions play an important role. Energy consumption and emissions can be significantly reduced through the introduction of technologies such as energy efficient appliances, building insulation and energy recovery systems. Not only do such measures reduce the negative impact on the environment, but they also allow city residents to save money on their utility bills.

In general, it is an important task for modern society to support the reduction of CO₂ emissions in cities. A safer, healthier and more comfortable environment can be created by integrating environmental friendliness and sustainability into the construction and development of cities.

Developing green building concepts is the fourth area. This means reducing the environmental impact of the city and improving the comfort of its inhabitants by using energy-efficient technologies, renewable materials, green roofs and drainage systems in construction.

In today's world, where environmental and sustainable development issues are becoming increasingly important, the development of green building concepts is extremely relevant. Green building is a concept

that aims to reduce energy consumption through the use of energy efficient technologies in construction. Renewable materials, which reduce the negative impact on nature and contribute to a healthier environment, play an important role in green building.

The use of green technologies, such as rainwater harvesting and treatment systems, solar panels for energy generation and the use of natural light and ventilation, is one of the key aspects of green building. Not only does this reduce the energy consumption of the building, but it also reduces the cost of energy and has a positive impact on the environment.

Green roofs and drainage systems are another important part of green building, as they reduce the amount of run-off into the sewer system and provide a natural water purification process. In addition, green roofs contribute to the retention of heat in the building and the improvement of the microclimate of the surrounding area. An important aspect of green building is also the improvement of the comfort of the inhabitants of the city. The quality of life and health of residents is improved by the use of natural materials, the creation of recreational and sports areas in the urban environment and green spaces [8, p. 74].

In general, the concept of “green” construction contributes to the reduction of the environmental impact of the city, to the preservation of natural resources and to the creation of a friendly environment for people and nature. The implementation of these approaches can be a contribution to the creation of a more sustainable and secure future for our society.

The fifth area is the development of innovative approaches to urban planning and development. These include smart city planning, the use of Big Data to optimise the management of urban resources, and the introduction of the Internet of Things to improve the efficiency of urban infrastructure. These approaches allow us to create smarter cities that keep those who live there comfortable and safe.

An important component of sustainable urban development is the development of innovative approaches to urban planning and development. Smart city planning, based on the use of modern technology and data to optimise the management of urban resources, is one of the most promising areas. This can improve the quality of life for residents and ensure the sustainability of urban development through more efficient resource allocation and decision making based on objective data.

For example, for the renovation of buildings destroyed during the military conflict, it is proposed to use the methodological basis of BIM-analysis of damage and assessment of impacts, consequences, resources for the restoration of buildings and structures,

which can be the basis for carrying out construction and technical expertise is to determine the technical condition of the object of expertise and the causes of its damage and destruction [23, p. 314]. The methodology will help to make this process more organised and efficient, and its implementation in information modelling can provide a technical opportunity to move to the creation of expert models for optimising key project indicators based on reliable, consistent data. This will help to create the necessary conditions for further transition to the principles of managing the assessment of impacts, consequences, recovery resources and the subsequent life cycle of construction projects.

The use of Big Data to analyse and predict urban development is an important element of innovation in urban planning. Big Data analysis can help to avoid problems and ensure the optimal development of urban infrastructure, by identifying trends in urban development and making changes to development plans. The use of Big Data contributes to sustainable growth and increases the competitiveness of cities and is a powerful tool for planning and managing urban development.

Another innovative approach to urban development is the introduction of the Internet of Things. This will improve the efficiency of urban infrastructure. Internet-connected devices and sensors can be used to monitor and manage various city systems such as transport, lighting, water supply, etc. The result is an improvement in the quality of life for residents, a reduction in the waste of resources and an improvement in the management of city services.

An important component of a smart city is the integration of different systems and services. This allows the creation of a unified information architecture and ensures fast and efficient information exchange between different city subsystems. This ensures that resources are used in the best possible way and improves the lives of citizens, from transport and logistics to healthcare and education. The integration of systems brings together the different aspects of urban life and enables them to work together to achieve common goals and objectives.

To sum up, innovative approaches to urban development and planning play an important role in shaping smart cities that are sustainable and efficient. The use of modern technologies, data analysis and the integration of different systems allow the optimisation of city management, the improvement of the quality of life of residents and the guarantee of sustainable city growth in the context of rapid technological progress [22].

It should be emphasised that modern conceptual approaches to urban development do have a number of drawbacks that should be taken into account in the

planning and implementation of urban regeneration projects. One of the main drawbacks is that many modern approaches are based on a 'one size fits all' approach to cities, which can result in losing the uniqueness and identity of the cities being regenerated. In addition, for smaller cities or countries with limited budgets, urban regeneration to modern standards can be expensive and resource-intensive. Another drawback is that urban renewal tends not to address social equity and the needs of local residents. Often, projects focus on attracting foreign investors or the development of tourism infrastructure without improving the quality of life of the local population, which can lead to high land prices and housing that is unaffordable for most residents. The potential loss of historical and cultural heritage is another drawback of modern urban regeneration approaches. Important historic buildings and areas that are important to the local culture and identity of the city can be destroyed in the pursuit of modern standards.

In general, it is important to pay more attention to the uniqueness and identity of cities, to improve the quality of life of local residents, to preserve cultural heritage and to ensure social justice in order to improve modern urban planning concepts. At the same time, it is necessary to strike a balance between the standards of the modern world and the unique characteristics of each individual city.

CONCLUSIONS

Reconstructing post-conflict cities is a complex and multifaceted process that requires a comprehensive approach that includes geographical, architectural, economic, sociological and environmental aspects. Geographical approaches are based on an analysis of the terrain. Architectural approaches are based on creating a comfortable environment for residents, and economic approaches are based on securing financial resources for reconstruction. In identifying social problems and ensuring environmental safety, sociological and environmental approaches play an important role. Combining these in the right way helps to reconcile the interests of all concerned and contributes to the sustainable and harmonious development of regenerated cities.

The conceptual directions in the development of urban planning policies reflect important current trends in the field. They aim at sustainable urban development and ensuring its economic, social and environmental sustainability. Key areas that contribute to improving the quality of life of residents and preserving the environment are innovative technologies, energy efficiency, sustainable development, green building and smart city planning. To create harmonious and innovative cities that can meet the needs of the present and the future, it is important to combine these areas.

The article examines five models of Ecological Cities from around the world, which serve as a benchmark for Ukraine to emulate. Ecological cities represent an important stage in the development and ensuring of sustainable development in the modern conditions of the world. Different approaches to the creation of environmentally friendly and sustainable urban environments are shown by the different models of ecological cities presented in the analysis. It is important to note that ecological cities not only contribute to the preservation of the environment, but also have an impact on the quality of life of the inhabitants and the economic development of the regions. Each of these models has its own characteristics and aspects. These can be used to develop effective development strategies for different cities around the world. The creation of eco-friendly cities is a key area in the modern development of urbanised areas. It contributes to balanced development, environmental protection and sustainability of the urban environment. The implementation of such projects is important for the creation of modern and comfortable living conditions for the inhabitants of the city and for the assurance of sustainable development at the national and global level.

In summary, urban reconstruction after conflict and war requires a comprehensive approach based on sustainable development, including geographical, architectural, economic, sociological and environmental aspects. Important trends towards sustainable urban development and ensuring its sustainability in economic, social and environmental terms are reflected in modern conceptual directions in the development of urban planning. The implementation of innovative approaches and the combination of different directions make it possible to create sustainable and harmonious cities that meet the demands of modernity and provide a high quality of life for their inhabitants.

A number of recommendations can be made on the basis of the above conceptual approaches to urban regeneration and development based on sustainable development:

1. Developing and implementing energy-efficient and eco-friendly urbanism. This will contribute to the creation of environmentally friendly and energy efficient cities.
2. Giving priority to sustainable development in the planning of urban regeneration, in particular through the use of green building, renewable energy sources and the conservation of natural resources. This will contribute to the sustainable development of towns and cities and to the preservation of the environment for future generations.

3. Taking social aspects into account when developing urban planning policies. This includes creating a comfortable environment for residents, ensuring access to social infrastructure and promoting social trust in the city.
4. Involving local communities and stakeholders in the process of urban planning and development in order to achieve a harmonious balance between the interests of different parties. This will promote mutual understanding and cooperation in addressing issues of importance to the city.
5. Ensuring financial stability for urban regeneration through the development of effective models for financing urban projects and attracting investors. This will help to ensure the continuity of development and the implementation of new initiatives to improve the living conditions of urban residents.

These recommendations will help to improve the quality of life of residents and preserve the environment for future generations by ensuring the sustainable and harmonious development of regenerated cities. ■

BIBLIOGRAPHY

1. Осиченко Г. О. Реконструкція історичних міст: композиційний аспект : монографія. Харків : Харків. нац. ун-т міськ. госп-ва ім. О. М. Бекетова, 2021. 252 с.
2. Ковальчук К. К. Трансформації архітектурних об'єктів. *Містобудування та територіальне планування*. 2010. Вип. 37. С. 216–226. URL: <https://repository.knuba.edu.ua/server/api/core/bitstreams/be754221-f339-4f8b-abcc-b62f76836b62/content>
3. Луців Р. С. «Розумне місто» як вектор урбаністичної трансформації у глобальному економічному середовищі : дис. ... д-ра філософії за спеціальністю 292 «Міжнародні економічні відносини». Тернопіль, 2023. 283 с.
4. Пилипенко Н. А. Імплементация світового досвіду побудови екоміст як модель післявоєнного відновлення українських міст. *Сталий розвиток авіаційної інфраструктури України* : колективна монографія. Львів ; Торунь : Liha-Pres, 2023. С. 268–284.
5. Кононенко О. Екологоорієнтований розвиток міст: теоретичні підходи та досвід формування. *Вісник Київського національного університету імені Тараса Шевченка. Серія «Географія»*. 2014. № 1. С. 22–25. URL: http://nbuv.gov.ua/UJRN/VKNU_geograf_2014_1_7
6. Дуда Л. А. Особливості способу життя людей в екопоселеннях. *Актуальні проблеми психології*. 2013. Вип. 33. Т. 7: Екологічна психологія. С. 153–162. URL: <http://appsychology.org.ua/data/jrn/v7/i33/19.pdf>
7. Козюк В. В., Длугопольський О. В., Гайда Ю. І. та ін. Екологічний вимір держави добробуту : монографія. Київ : Ліра-К, 2019. 224 с.
8. Ляхович О. О., Процюк А. А. Світовий досвід впровадження природоохоронних заходів у будівельному секторі. *Вісник НУВГП. Серія «Економічні науки»*. 2017. № 3. С. 72–77. URL: <https://ep3.nuwm.edu.ua/11773/1/Ve798%20зах.pdf>
9. Відновлювані джерела енергії/за заг. ред. С. О. Кудрі. Київ : Інститут відновлюваної енергетики НАНУ, 2020. 392 с.
10. Рудич О. О. Природно-кліматичні умови як фактор ризику виробництва сільськогосподарської продукції в Україні. *Сталий розвиток економіки*. 2018. № 2. С. 14–21. URL: <https://economdevelopment.in.ua/index.php/journal/article/view/157/147>
11. Білик А. С. Екологічний та економічний аналіз життєвого циклу каркасів будівель : монографія. Київ, 2022. 263 с.
12. Дугінець Г., Колодко Н. Економічне відновлення та розвиток країн після збройних конфліктів: досвід для України. *Зовнішня торгівля: економіка, фінанси, право*. 2023. № 5. С. 46–65. DOI: [https://doi.org/10.31617/3.2023\(130\)04](https://doi.org/10.31617/3.2023(130)04)
13. Ступницький О. І., Швець І. Ю. Відновлення України: фінансові ресурси і інструменти відбудови та розвитку територіальних громад. Київ, 2023. 111 с. URL: <http://surl.li/reuyqd>
14. Інноваційні основи відновлення та розвитку країн після збройних конфліктів: інноваційний вимір: колективна монографія / за ред. В. А. Омеляненка. Суми : Інститут стратегій інноваційного розвитку і трансферу знань, 2022. 280 с.
15. Іванов С. В. Економічне відновлення і розвиток країн після збройних конфліктів та воєн: невтрачені можливості для України. *Економіка України*. 2019. № 1. С. 75–89. DOI: <https://doi.org/10.15407/economyukr.2019.01.075>
16. Касич А. О. Аналіз соціально-економічних наслідків війни та потенціалу відновлення регіонів України. *Вісник Національного технічного університету «Харківський політехнічний інститут»*. Серія «Економічні науки». 2023. № 5. С. 55–59. DOI: <https://doi.org/10.20998/2519-4461.2023.5.55>
17. Плаксун А. О. Механізми управління розвитком де окупованих територій: проблеми та перспективи. *Вчені записки ТНУ імені В. І. Вернадського. Серія «Публічне управління та адміністрування»*. 2024. Т. 35. № 2. С. 91–98. DOI: <https://doi.org/10.32782/TNU-2663-6468/2024.2/16>
18. Слозанська Г. І. Соціальна робота в територіальній громаді: теорії, моделі та методи : монографія. Тернопіль : ТНПУ імені В. Гнатюка, 2018. 382 с.
19. Лівандовська О. Сучасна модель зеленого повоєнного відновлення громад. *Актуальні питання у сучасній науці*. 2024. № 5. С. 105–116. DOI: [https://doi.org/10.52058/2786-6300-2024-5\(23\)-105-116](https://doi.org/10.52058/2786-6300-2024-5(23)-105-116)

20. Yashchenko O. F., Makatora D. A., Kubanov R. A. et al. Theoretical and Methodological Bases for Implementing BIM Technologies in Construction Companies: Essence. Characteristics. Economic Efficiency. *Бізнес Інформ*. 2024. № 1. С. 167–117. DOI: <https://doi.org/10.32983/2222-4459-2024-1-167-177>
21. Yashchenko O., Makatora D., Kubanov R. Ensuring the economic and environmental development of the architecture and construction industry: theoretical concepts and applied development paths. *Вісник Кременчуцького національного університету імені Михайла Остроградського*. 2023. Вип. 6. С. 32–40. DOI: <https://doi.org/10.32782/1995-0519.2023.6.4>
22. Yashchenko O., Makatora D., Kubanov P., Prusov D. Concept in the context of sustainable territorial development: innovation, economy, management, construction and applied characteristics. *Ефективна економіка*. 2024. № 2. DOI: <http://doi.org/10.32702/2307-2105.2024.2.22>
23. Prusov D., Makatora D., Kubanov R. Methodological basis of bim-analysis of damage and assessment of impacts, consequences, resources for restoration of buildings and structures. *Опір матеріалів і теорія споруд*. 2024. № 112. С. 302–315. DOI: <https://doi.org/10.32347/2410-2547.2024.112.302-315>

REFERENCES

- Bilyk, A. S. *Ekolohichniy ta ekonomichniy analiz zhyttievoho tsykladu karkasiv budivel* [Ecological and Economic Analysis of the Life Cycle of Building Frames]. Kyiv, 2022.
- Duda, L. A. "Osoblyvosti sposobu zhyttia liudei v ekoposelenniakh" [Peculiarities of the Way of Life of People in Eco-settlements]. *Aktualni problemy psykholohii*, iss. 33, vol. 7 (2013): 153-162. <http://apsychology.org.ua/data/jrn/v7/i33/19.pdf>
- Duhinets, H., and Kolodko, N. "Ekonomichne vidnovlennia ta rozvytok krain pislia zbroinykh konfliktiv: dosvid dlia Ukrainy" [Economic Recovery and Development of Countries after Armed Conflicts: Experience for Ukraine]. *Zovnishnia torhivlia: ekonomika, finansy, pravo*, no. 5 (2023): 46-65. DOI: [https://doi.org/10.31617/3.2023\(130\)04](https://doi.org/10.31617/3.2023(130)04)
- Innovatsiini osnovy vidnovlennia ta rozvytku krain pislia zbroinykh konfliktiv: innovatsiinyi vymir* [Innovative Foundations of Recovery and Development of Countries after Armed Conflicts: Innovative Dimension]. Sumy: Instytut stratehii innovatsiinoho rozvytku i transferu znan, 2022.
- Ivanov, S. V. "Ekonomichne vidnovlennia i rozvytok krain pislia zbroinykh konfliktiv ta voien: nevtrache ni mozhlyvosti dlia Ukrainy" [Economic Recovery and Development of Countries after Armed Conflicts and Wars: Ukraine's Opportunities that Have Not Lost Yet]. *Ekonomika Ukrainy*, no. 1 (2019): 75-89. DOI: <https://doi.org/10.15407/economyukr.2019.01.075>
- Kasych, A. O. "Analiz sotsialno-ekonomichnykh naslidkiv viiny ta potentsialu vidnovlennia rehioniv Ukrainy" [Analysis of the Social and Economic Consequences of the War and the Potential for Recovery of the Regions of Ukraine]. *Visnyk Natsionalnoho tekhnichnoho universytetu «Kharkivskiy politekhnichnyi instytut»*. Seriya «Ekonomichni nauky», no. 5 (2023): 55-59. DOI: <https://doi.org/10.20998/2519-4461.2023.5.55>
- Kononenko, O. "Ekolohoorientovanyi rozvytok mist: teoretychni pidkhody ta dosvid formuvannia" [Environmental Development of Cities: Theoretical Approaches and Experience of Forming]. *Visnyk Kyivskoho natsionalnoho universytetu imeni Tarasa Shevchenka*. Seriya «Heohrafiia», no. 1 (2014): 22-25. http://nbuv.gov.ua/UJRN/VKNU_geograf_2014_1_7
- Kovalchuk, K. K. "Transformatsii arkhitekturnykh ob'ektiv" [Transformations of Architectural Objects]. *Mistobuduvannia ta terytorialne planuvannia* iss. 37 (2010): 216-226. <https://repository.knuba.edu.ua/server/api/core/bitstreams/be754221-f339-4f8b-abcc-b62f76836b62/content>
- Koziuk, V. V. et al. *Ekolohichniy vymir derzhavy dobrobutu* [Ecological Dimension of the Welfare State]. Kyiv: Lira-K, 2019.
- Liakhovych, O. O., and Protsiuk, A. A. "Svitovyi dosvid vprovadzhennia pryrodookhoronnykh zakhodiv u budivelnomu sektori" [World Experience of Environmental Protection in Building Sector]. *Visnyk NUVHP*. Seriya «Ekonomichni nauky», no. 3 (2017): 72-77. <https://ep3.nuwm.edu.ua/11773/1/Ve798%20zak.pdf>
- Livandovska, O. "Suchasna model zelenoho povoiennoho vidnovlennia hromad" [A Modern Model of Green Post-War Restoration of Territorial Communities]. *Aktualni pytannia u suchasni nauki*, no. 5 (2024): 105-116. DOI: [https://doi.org/10.52058/2786-6300-2024-5\(23\)-105-116](https://doi.org/10.52058/2786-6300-2024-5(23)-105-116)
- Lutsiv, R. S. "«Rozumne misto» yak vektor urbanistychnoi transformatsii u hlobalnomu ekonomichnomu seredovyshchi" ["Smart City" as a Vector of Urban Transformation in the Global Economic Environment]: *dys. ... d-ra filosofii za spetsialnistiu 292 «Mizhnarodni ekonomichni vidnosyny»*, 2023.
- Osychenko, H. O. *Rekonstruktsiia istorychnykh mist: kompozytsiinyi aspekt* [Reconstruction of Historical Cities: Compositional Aspect]. Kharkiv: Kharkiv. nats. un-t misk. hosp-va im. O. M. Beketova, 2021.
- Plaksun, A. O. "Mekhanizmy upravlinnia rozvytkom deokupovanykh terytorii: problemy ta perspektyvy" [Development Management Mechanisms of Deoccupied Territories: Problems and Prospects]. *Vcheni zapysky TNU imeni V. I. Vernadskoho*. Seriya «Publichne upravlinnia ta administruvannia», vol. 35, no. 2 (2024): 91-98. DOI: <https://doi.org/10.32782/TNU-2663-6468/2024.2/16>
- Prusov, D., Makatora, D., and Kubanov, R. "Methodological basis of bim-analysis of damage and assessment of

- impacts, consequences, resources for restoration of buildings and structures". *Opir materialiv i teoriia sporud*, no. 112 (2024): 302-315.
DOI: <https://doi.org/10.32347/2410-2547.2024.112.302-315>
- Plypenko, N. A. "Implementatsiia svitovoho dosvidu pobudovy ekomist yak model pislivoiennoho vidnovlennia ukrainskykh mist" [Implementation of the World Experience of Building Eco-cities as a Model of Post-war Reconstruction of Ukrainian Cities]. In *Stalyi rozvytok aviatsiinoi infrastruktury Ukrainy*, 268-284. Lviv; Torun: Liha-Pres, 2023.
- Rudych, O. O. "Pryrodno-klimatychni umovy yak faktor ryzyku vyrobnytstva silskohospodarskoi produktsii v Ukraini" [Natural and Climatic Conditions as a Risk Factor for Agricultural Production in Ukraine]. *Stalyi rozvytok ekonomiky*, no. 2 (2018): 14-21. <https://economdevelopment.in.ua/index.php/journal/article/view/157/147>
- Slozanska, H. I. *Sotsialna robota v terytorialnii hromadi: teorii, modeli ta metody* [Social Work in the Territorial Community: Theories, Models and Methods]. Ternopil: TNPU imeni V. Hnatiuka, 2018.
- Stupnytskyi, O. I., and Shvets, I. Yu. "Vidnovlennia Ukrainy: finansovi resursy i instrumenty vidbudovy ta rozvytku terytorialnykh hromad" [Restoration of

- Ukraine: Financial Resources and Tools for Reconstruction and Development of Territorial Communities]. Kyiv, 2023. <http://surl.li/reyyqg>
- Vidnovliuvani dzherela enerhii [Renewable Energy Sources]. Kyiv: Instytut vidnovliuvanoi enerhetyky NANU, 2020.
- Yashchenko, O. et al. "Concept in the context of sustainable territorial development: innovation, economy, management, construction and applied characteristics". *Efektivna ekonomika*, no. 2 (2024).
DOI: <http://doi.org/10.32702/2307-2105.2024.2.22>
- Yashchenko, O. F. et al. "Theoretical and Methodological Bases for Implementing BIM Technologies in Construction Companies: Essence. Characteristics. Economic Efficiency". *Biznes Inform*, no. 1 (2024): 167-117.
DOI: <https://doi.org/10.32983/2222-4459-2024-1-167-177>
- Yashchenko, O., Makatora, D., and Kubanov, R. "Ensuring the economic and environmental development of the architecture and construction industry: theoretical concepts and applied development paths". *Visnyk Kremenchutskoho natsionalnoho universytetu imeni Mykhaila Ostrohradskoho*, no. 6 (2023): 32-40.
DOI: <https://doi.org/10.32782/1995-0519.2023.6.4>

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ОСОБЛИВОСТІ ФОРМУВАННЯ ІНФОРМАЦІЙНО-КОМУНІКАЦІЙНОГО ЗАБЕЗПЕЧЕННЯ БІЗНЕС-ПРОЦЕСІВ СУБ'ЄКТІВ МАЛОГО ПІДПРИЄМНИЦТВА

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Чигир А. М. Особливості формування інформаційно-комунікаційного забезпечення бізнес-процесів суб'єктів малого підприємництва

У статті визначено особливості формування інформаційно-комунікаційного забезпечення бізнес-процесів суб'єктів малого підприємництва (СМП). Зазначено, що як самостійне соціально-економічне явище мале підприємництво в Україні розвивається в складних умовах становлення ринкової економіки та стикається з багатьма проблемами. Малі підприємства отримують певну підтримку, але ще не створено конкурентоспроможного підприємницького типу ведення бізнесу. Як і раніше, головними цілями економічної політики України залишаються досягнення повної зайнятості, економічного зростання, підтримки курсу національної валюти, збереження зовнішньоекономічної рівноваги та підвищення життєвого рівня більшості громадян. Побудовано організаційно-економічну модель застосування інформаційно-комунікаційних технологій у бізнес-процесах СМП. Відзначено, що до основних елементів інформаційно-комунікаційного забезпечення бізнес-процесів суб'єктів малого підприємництва слід віднести: цілі та завдання; об'єкти та суб'єкти; функції управління; показники результативності; принципи; методи; інструменти; механізм; умови забезпечення; культура використання; вимоги внутрішніх та зовнішніх стейкхолдерів суб'єктів господарювання. Зазначено, що в сучасній економіці існують всі можливості для експансивного розвитку суб'єктів господарювання. Сьогодні збільшення конкуренції зменшує рентабельність продукції (послуг), а нові мережні технології роблять ринок більш прозорим. Інтернет може бути дуже корисним для національних компаній, оскільки він спрощує прийняття стратегічних рішень щодо ведення бізнесу та вибору стратегій розвитку. Зазначено, що сьогодні суб'єкти малого підприємництва також можуть використовувати наявні в інтернеті електронні торгові платформи, онлайн-аукціони, вебсайти податкової та митної адміністрації. Загалом сучасні ІКТ дозволяють СМП знизити операційні та транзакційні витрати, а також підтримувати низькі ціни, щоб зробити їх злобальними. Зроблено висновок, що впровадження нових інформаційно-комунікаційних технологій у внутрішні та зовнішні комунікації суб'єктів малого підприємництва під час воєнного стану в нашій країні приведе до розвитку СМП, оптимізації бізнес-процесів, поліпшення якості та конкурентоспроможності продукції (послуг).