

**ECO-INNOVATION AS A MEANS OF ENSURING SUSTAINABLE DEVELOPMENT
OF THE STATE**

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Today, in the face of exacerbated global problems, ecological crisis as a result of increasing irreversible destructive influence of anthropogenic factor on the planet, Ukraine together with the leading world community has chosen a course on sustainable development [1], which provides for meeting the needs of the present generation without compromising the ability of future generations to satisfy their needs, satisfy their needs declared in the National Sustainable Development 2020 Strategy. To achieve this goal, it is necessary to use effective environmental and innovation policies to reduce the negative impact of human activity on the environment and increase the efficiency of scarce natural resources using.

Not just innovations that are able to reform the socio-economic processes in the country in the direction of quality development are becoming relevant today, but innovations with a decapling factor, aimed at reducing the use of non-renewable resources by the economic system and its emissions into the environment while maintaining the sustainable development of the economic system itself. We are talking about eco-innovations, which, according to the definition of the European Commission in the Eco-innovation Thematic Report 2010 [2], represent any form of targeted innovation that have resulted in significant and demonstrable progress in the direction of achieving the goal of sustainable development

by reducing environmental impact, increasing environmental sustainability, or achieving more efficient and responsible use of natural resources.

The experience of developed countries shows that eco-innovations are introduced in all spheres, which causes systemic changes in the processes of realizing the resource-efficient and environmentally friendly green economy. Thus, according to research from the Eco-Innovation Observatory, funded by EU and financed by the European Commission, distinguishes the following types of eco-innovations [3]:

Eco-innovations as product are products and services. Eco-innovative products are manufactured in such a way that the overall environmental impact is minimized, and ecodesign is also important here. In the production of the product of the future, more attention will be given to ways of limiting the resources involved. Recycling, restoration and repair will become trending business strategies. Eco-innovation services include so-called green financial services (such as eco-leasing), environmental services (waste management) and other resource-intensive services (such as car exchanges, etc.).

Eco-innovation as process of production reduces the use of materials, reduces risk and leads to cost savings. These include: replacement of harmful substances in the production process (replacement of toxic substances), optimization of the production process (energy efficiency) and reduction of the negative impact of exits from the economic system, such as emissions into the atmosphere. Eco-innovations, as a process, are intended to clean up production, to increase its resource efficiency, to ensure zero waste and zero emissions into the environment.

Organizational eco-innovation is the implementation of organizational methods and management systems to address environmental issues in production and products. These include pollution prevention schemes, environmental management and audit systems, chain management (collaboration between companies to close industrial chains to minimize environmental damage), and business networking clusters and other forms of industrial integration.

Marketing eco-innovation involves changes in product design or packaging, product placement, product promotion, and pricing. The formation of eco-brand is becoming the most effective marketing strategy today, which ensures the growth of demand for enterprise products. In addition, it is important to have an appropriate and reliable eco-label on the environmental aspects of the goods.

Social eco-innovations are based on the undeniable role of human beings in the processes of resource consumption. These include market-based measurement of behavioral change and demand for eco-products and eco-services. There is a practice of introducing so-called user-friendly eco-innovations by firms, which require joint development of product characteristics by all stakeholders to avoid the cost of excess product quality. The social dimension also includes the creativity of society, such as the innovative concept of green living, which aims to deeply integrate eco-innovation into the everyday life of the population, develop a sense of empathy, foster a gentle attitude to the environment, economical and responsible consumption.

System eco-innovation is a set of interconnected innovations that enhance or create completely new systems for performing specific functions with reduced overall environmental impact. A key feature of the innovation system is that it is a set of changes that are provided by the design. For example, home-based eco-innovation is not just about insulating windows, or using a better heating system, it's about innovating overall design to improve its functionality. Green Cities is another example of systemic innovation when eco-innovation and effective planning lead to a set of changes that make the city's life more green.

In our opinion, it is appropriate to separate *infrastructure* eco-innovations in Ukrainian realities that would ensure the introduction of environmentally-friendly inventions into the everyday life of the population. First of all, we are talking about transport, TV and radio communications, road surface, water and gas pipelines, Internet networks, recreational facilities, trade and financial infrastructure, garbage sorting points and more. Because of today's accelerating pace of technological generations change, it is important for the state not only to produce eco-innovations, but also to be able to integrate them into socio-economic processes, which implies the availability of appropriate infrastructure and moral preparedness of the population for such changes.

Such differentiation of eco-innovation, in our opinion, should underlie the targeted approach to stimulating eco-innovation activity in the country. The distribution of eco-innovations among their stakeholders, that is, the entities that produce them and have a greater impact on the efficiency of their implementation and development, will help to make an individual selection of incentive and sanction stimuluses in each case, which will maximize the efficiency of eco-innovation processes.

Effective innovation policies to promote the development and integration of eco-innovations into the socio-economic life of the country in order to ensure sustainable development will help Ukraine join the

leading global community, increase its competitiveness, occupy a profitable place in the international division of labor, and gain political weight in the world stage.

References:

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