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ENVIRONMENTAL SUSTAINABILITY THROUGH SOCIAL ECONOMY AND ECO-INNOVATION

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Abstract
The aim of this paper is to examine how social economy and eco-innovations jointly contribute to sustainable development by implementing in practice the balance between economic growth, social inclusion, and environmental protection. Building upon the classical and neoclassical economic roots of sustainability and the “triple bottom line” framework, it conceptualizes sustainable development as dependent on the integrated viability of the three pillars – environmental, social, and economic. It also recognizes the growing relevance of strong sustainability, which rejects the substitution of natural capital by other forms of capital. The study situates this discussion within the evolution of the global sustainability agenda from the Brundtland Report and *The Limits to Growth* to the Millennium Development Goals and the 2030 Agenda for Sustainable Development. It also puts and emphasis on the universal, interdependent character of the Sustainable Development Goals (SDGs) and the European Union’s leading role in their implementation.
The methodology used combines a theoretical overview with a review of regulatory and strategic frameworks, as well as illustrative case studies of international and Bulgarian social enterprises. The approach is mixed but primarily is qualitative and is used to explore how eco-innovative and socially oriented business models translate normative sustainability principles into practice. Particular attention is paid to the definitions, types, and mechanisms of eco-innovation, highlighting their role in reducing environmental impacts, enhancing resource efficiency, and reshaping innovation systems toward long-term resilience.
The findings demonstrate that innovation, and especially eco-innovation is a critical catalyst of sustainable transitions through renewable energy, circular economy solutions, sustainable agriculture, and smart technologies that lower transition costs while preserving competitiveness and generate green jobs. Simultaneously, organizations in the social economy demonstrate how enterprises can prioritize collective well-being, empowerment of vulnerable groups, and reduction of power imbalances, while remaining financially viable. The synergy between social economy and eco-innovations emerges as a powerful driver for localized, inclusive pathways to achieving the SDGs.
The study identifies persistent structural barriers that include limited access to finance and technology, capacity gaps, fragmented policy support, and global socio-economic inequalities that limit the spread and upscaling of such models. The paper concludes that realizing the transformative potential of eco-innovation and the social economy requires coherent public policies, strategic partnerships among state, market, and civil society, and the mainstreaming of environmental and

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social criteria into business models. Their convergence offers a concrete, practicable route toward a more equitable, competitive, and ecologically responsible development paradigm.

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The Importance of Innovation for Sustainable Growth

In 2000, world leaders adopted the Millennium Development Goals, which "express the livelihoods and well-being of the poor… through the concept of access to opportunities and absence of insecurity and vulnerability" (Adger, 2007), balancing economic, social, and environmental dimensions. In 2015, the 2030 Agenda built on this experience with 17 universal goals, addressing all countries according to their context.Innovation and technology are key drivers for achieving the SDGs, especially along the environmental dimension and within the framework of People, Planet, Prosperity, Partnership, and Peace. By the midpoint toward 2030, progress on some goals is lagging, particularly in low-income countries, which requires transformative solutions that integrate science, technology, and innovation (Walsh, 2020). Their importance is further reinforced by disruptive technologies like artificial intelligence and rapid technological advancement (Managi, 2021). Innovation lowers the expenses of a sustainable transition: the circular economy develops via biodegradable goods and more effective recycling; sustainable agriculture maximizes resources and preserves biodiversity; and renewable energy lessens reliance on fossil fuels. Beyond the environment, "green" business models boost competitiveness, create employment in ecotourism, sustainable building, and clean energy, and promote resource efficiency while retaining profitability. Smart technologies increase productivity and better optimize resources.

The Role of the Social Economy and Eco-Innovations

The European Union plays a leading role in shaping the 2030 Agenda, which is fully aligned with the European vision. It commits to eradicating poverty and achieving sustainable development "leaving no one behind." The 17 SDGs and 169 targets are universal and interconnected, and their implementation is a shared responsibility of all countries. The Agenda integrates the economic, social, and environmental dimensions and recognizes that peace, security, justice, and inclusion reinforce one another.

The social economy is an "economy of the people" that places collective well-being ahead of profit maximization. It produces goods and services according to needs, carries out revenue-generating activities (it is not charity), and addresses problems by "facilitating access to finance, market information, raw materials, technologies, supporting services, and markets." At the same time, it reduces "power imbalances" and stabilizes incomes.

Linking the social economy with eco-innovations empowers communities, promotes inclusion, and leverages technologies for a greener and fairer transition, turning sustainability from a distant goal into tangible solutions.

Metodoligal aspects

The analysis shows how creative and socially conscious business models support economic growth, social inclusion, and environmental sustainability by combining a theoretical overview, real-world examples, and a review of current rules. The theoretical section looks at the key components of sustainable development and how innovation is crucial to its realization. There are presentations of successful social companies utilizing eco-innovation as well as best practices from other industries. The study examines national and international programs that promote sustainable development as well as examples of businesses that balance environmental responsibility with economic success. These illustrations demonstrate how innovative business practices combine environmental and social goals with practicality. Highlighted were best practices, common challenges, and opportunities for further integration of social economy and eco-innovation processes into plans for sustainable development.

Sustainable Development and the Role of the Social Economy and Eco-Innovations

Basic human needs must be met, environmental preservation and development must be integrated, equality must be attained, social self-determination and cultural variety must be guaranteed, and ecological balance must be preserved. Despite the concept's evolution, its fundamental ideas and goals have helped people behave more thoughtfully and adapt to environmental limitations. This explains its adoption in various areas of human activity. Numerous international organizations are involved in applying the concept until it reaches positive implementation at the local level, though global results remain limited. This is demonstrated by ongoing environmental problems that remain pressing. The UN Millennium Development Goals, which addressed a complex global context including population increase, hunger and poverty, conflicts and political instability, and additional environmental deterioration, represent a modern notion of sustainable development. The gap between developed and less developed nations keeps growing, and many governments are still far from attaining sustainable development.

The main barriers to implementing sustainable development are the level of socio-economic progress that many states have not yet reached, the lack of financial resources and technologies, as well as the diversity of political and economic objectives worldwide. In 2015, world leaders adopted the 2030 Agenda for Sustainable Development (UN General Assembly, 2015), which contains 17 Sustainable Development Goals (SDGs). Universal in nature, the Agenda addresses all states regardless of their level of development, while recognizing country-specific contexts and capacities. The Millennium Development Goals, which were successful in mobilizing substantial potential to battle poverty worldwide, are the foundation for the Sustainable Development Goals (SDGs). The Agenda tackles the full elimination of poverty as well as the economic, social, and environmental facets of

sustainable development. The EU played a major role in shaping the 2030 Agenda, which is entirely consistent with the European vision and has won international acceptance for sustainable development (UN General Assembly, 2015).

By 2030, the 2030 Agenda aims to abolish poverty and promote sustainable development worldwide, guaranteeing that no one is left behind. Global, universally applicable, and interrelated are the 17 Sustainable Development Goals (SDGs) and their 169 related goals.All states, developed and developing alike, share responsibility for achieving the SDGs. The 2030 Agenda integrates the three dimensions of sustainable development – economic, social, and environmental – in a balanced way and reflects, for the first time, international consensus that peace, security, justice, and social inclusion should not be seen as separate goals but rather as mutually reinforcing.

The social economy refers to the "economy of people", in which the primary purpose of economic activity is to meet human needs and direct progress toward improving social welfare rather than maximizing profits. Unlike traditional business models focused on individual profit, the social economy provides mechanisms that prioritize collective well-being and growth. It produces goods and services that meet people's needs and ensure their social well-being. Importantly, organizations in the social economy differ from charitable activities because they also engage in revenue-generating operations. Thus, the social economy aims to address social and economic problems by "facilitating access to finance, market information, raw materials, technologies, supporting services, and markets," while reducing "power imbalances in labor and product markets and improving the level and stability of incomes".

Innovations and advancements in technology are a key component and force behind sustainable development, providing answers to problems in all three areas. Sustainability in the environment is one of the most affected sectors. The UN Millennium Development Goals, which offer the foundation for concentrating on the five dimensions – People, Planet, Prosperity, Partnership, and Peace – recognize innovations as a key motivator. As we move closer to the SDGs by the middle of 2030, it will be more crucial than ever to comprehend the vital role that innovations play. Particularly in low-income nations, progress on several objectives is lagging considerably. Because of their complexity, they call for innovative, technological, and scientific solutions that are transformational.

The importance of science, technology, and innovation in accomplishing the SDGs is growing (Walsh, 2020), especially in light of the quick speed at which technology is developing (Managi, 2021) and the emergence of disruptive technologies like artificial intelligence. By creating new methods, strategies, and initiatives that directly support sustainable development, innovations can significantly lower the expenses related to sustainable advancement. Renewable energy developments lessen reliance on fossil fuels. Sustainable farming methods conserve biodiversity while optimizing resources. Biodegradable goods and better recycling systems are furthering the idea of the circular economy, which attempts to decrease waste by reusing resources for various purposes.

Innovations are important for sustainability in addition to their beneficial benefits on the environment. "Green" business practices increase competitiveness, promote resource

efficiency, reduce costs without compromising profitability, and create jobs in emerging sectors such as renewable energy, ecotourism, and environmentally friendly construction. Smart technologies improve resource optimization and increase production. A sustainable future is the goal of both eco-innovations and the social economy, thus they are not separate concepts. Using the potential of technological innovation, empowering communities, and promoting diversity may all lead to significant change. Connecting the social economy with eco-innovations enables a more sustainable, fairer, and greener society, elevating sustainability above a mere concept.

Types and Characteristics of Eco-Innovations

An important idea in the fast-paced, ever-evolving world of today is environmental innovation. Development is happening quickly on both a European and global scale, with new ways to safeguard the environment and climate being developed every day. Despite the topic's breadth, the primary areas of focus for substantial scientific and entrepreneurial resources influence the main eco-innovations that companies undertake to meet sustainable development goals (European Commission, 2011).

The development of eco-innovations at European and global scale is directed toward achieving the objectives of the Eco-Innovation Action Plan, which is part of the Europe 2020 strategy (European Commission, 2011). This document defines eco-innovation as "any form of innovation aimed at achieving significant and demonstrable progress towards sustainable growth by reducing environmental impacts, enhancing resilience to environmental pressures, or achieving more efficient and responsible use of natural resources" (European Commission, 2011).

In the scientific literature, eco-innovation is defined in a variety of ways. According to some writers, the various terms – clean innovation, green innovation, eco-innovation, and environmental innovation – reflect various viewpoints and implementation focuses (Nikolova-Minkov, 2022). It's crucial to remember that eco-innovations don't necessarily result in less of an impact on the environment. The fact that an invention causes less environmental damage than alternatives is a crucial factor in determining whether it qualifies as "eco".

In the European Commission's Competitiveness and Innovation Framework Programme (2007–2013), eco-innovation is defined as: "any innovation leading to significant and demonstrable progress toward sustainable development, through reducing environmental impacts or achieving more efficient and responsible use of natural resources, including energy" (European Commission, 2013).

Kemp and Pearson provide one of the most comprehensive definitions: "Eco-innovation is the production, assimilation, or exploitation of a product, production process, service, or management or business method that is new to the organization (development or adoption) and which results, throughout its life cycle, in a reduction of environmental risk, pollution, and other negative impacts from the use of resources (including energy) compared to relevant alternatives" (Kemp & Pearson, 2007).

As a result of the many diverse definitions of eco-innovation, they should be distinguished into several types of eco-innovations which are presented in figure 1:

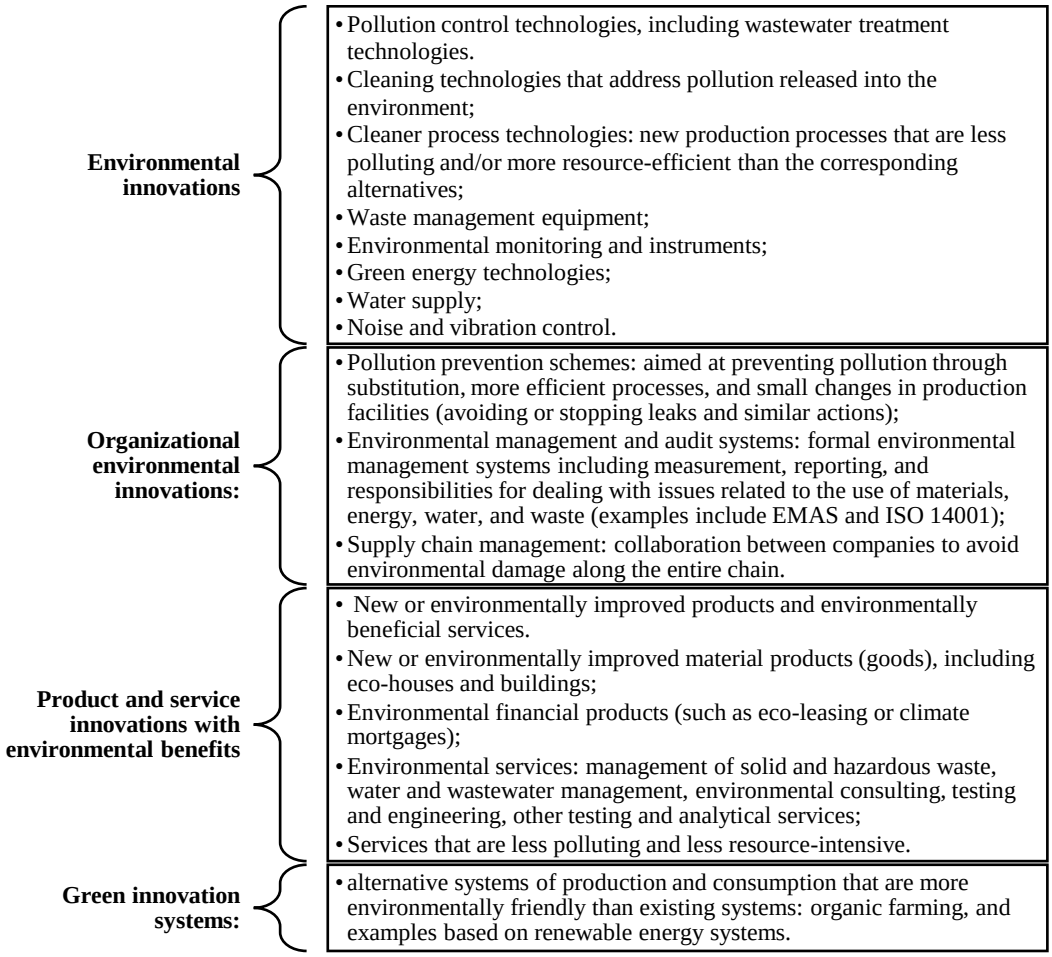

Figure 1. Types of eco-innovations

According to the Organisation for Economic Co-operation and Development (OECD), environmental innovations can be classified on the basis of the main **goals** of innovation, the **mechanisms** for achieving them, and the **impacts** they create. Goals refer to products (goods and services), processes, marketing methods, and organizations or institutions. The mechanism refers to the specific method by which eco-innovation is carried out and its goal is achieved. The strategies used in this regard are: modification; redesign; use of alternatives; creation. The impact of eco-innovation depends on the set goal and the mechanism used, and is expressed through the effect created and the degree of environmental influence (OECD, 2009).

Researchers view innovations as the way in which technologies shape the dominant technical and economic paradigm at any given time. Changes in general-purpose technologies are so significant that they have a huge effect on eco-innovations, which is why particular attention should be paid to developments in them. Special attention should be given to technologies that may have negative and positive effects (more often indirect than direct) on eco-innovations, such as ICT, biotechnologies, and more recently nanotechnologies.

Eco-innovations can be an appropriate instrument for linking the innovation system. They can contribute to the renewal of the entire innovation system, taking into account social, environmental, and economic aspects. The long-term survival of the economic system depends on its ability to create and maintain sustainable economic processes that do not involve short-term value creation at the expense of long-term wealth. By identifying the different dimensions of eco-innovation, showing their diversity, and addressing their process- and outcome-oriented impacts, ways can be identified through which eco-innovation processes can generate economic and environmental improvements in their various dimensions (Carrillo-Hermosilla, J., Del Río, P., & Könnölä, T., 2010).

Because they both put long-term well-being ahead of immediate financial gain, social entrepreneurship and environmental responsibility go hand in hand. Social entrepreneurs encourage ethical supplier chains, circular economy models, and green innovation as ways to include sustainability into their company plans. Their endeavors set the standard for a more sustainable future by demonstrating that companies can be both lucrative and ecologically conscious. Innovation improves quality of life on a societal level by addressing pressing issues in infrastructure, healthcare, and education. The creation of smart cities enhances urban living conditions by combining digital connection, waste management, and sustainable transportation. Social disparities are closed by advancements in clean water purification, reasonably priced medical care, and online education, guaranteeing that even the most marginalized areas have access to possibilities for development and fundamental requirements. The condicted research pined out several national and worldwide examples fo social entrprenursip. The summury of tha finigs are presented in table 1.

Table 1. Global and Bulgarian Examples of Social Enterprises and Social Entrepreneurs

Example/ Organization	Founder(s)/ Year	Main Concept/ Innovation	Social Impact/ Characteristics	Sources
Ashoka (Global)	Bill Drayton, 1980 (principles from 1972)	Support for local social entrepreneurs; search for four qualities – creativity, entrepreneurial qualities, social impact, ethics	Created global network of social entrepreneurs; focus on systemic social change	Bornstein (2007)
Muhammad Yunus & Grameen Bank (Bangladesh)	Muhammad Yunus, pilot 1976, official bank 1983	Concept of microcredit / microfinance: small unsecured loans to poor people, mainly women	Reduced poverty in Bangladesh; empowered women; repayment based on trust and solidarity groups; Nobel Prize laureate	Martin & Osberg (2007); Yunus (2007)
Patagonia (USA)	Founded 1973, social initiatives since 1985	Sustainable apparel company; ethical business practices; 1% of annual sales donated to environmental initiatives	Contributed over $74 million to environmental causes; eco-conscious target market; profit combined with mission	Patagonia corporate reports (2023, 2024)
"Надежда" Social Enterprise (Bulgaria)	NGO-founded, early 2000s	Provides employment to people with disabilities in handicrafts and services	Supports labor market integration; reduces social exclusion	National Network for Social Enterprises (2021)
Social Café "Bread House" (Хлебни къщи) (Bulgaria)	Nadezhko NGO, since 2009	Community bakeries where people, incl. disadvantaged groups, bake together	Promotes cultural dialogue, social inclusion, and community development	Bread Houses Network (2018)
Social Café by Workshop for Civic Initiatives Foundation (Bulgaria)	Sofia, since 2015	Café employing disadvantaged youth and people with disabilities	Provides stable jobs, training, and public awareness	Bulgarian Center for Not-for-Profit Law (2019)
"Caritas Bulgaria" Social Enterprises	Caritas Bulgaria, since 1993	Workshops and community services for disadvantaged people	Creates sustainable employment, supports inclusion, combines business with care	Caritas Bulgaria Annual Reports (2022)
"Светове" Art Workshop (Bulgaria)	Parents' association, since 2008	Creative studio for young people with intellectual disabilities	Empowers parents, creates social products, improves inclusion of youth with disabilities	BCNL Case Studies (2020)

Conclution

The study affirms that the economic, social, and environmental aspects of sustainable development must be integrated in a balanced manner. In this process, innovation – especially eco-innovation – is essential because it offers solutions that maximize resource use, lessen negative environmental effects, and open doors for green growth. The social economy shows how entrepreneurship may prioritize social inclusion, equality, and community well-being without compromising financial success. The examples examined, both domestically and internationally, show how social entrepreneurs and eco-innovative company models may effectively blend financial success with social and environmental responsibility. They demonstrate the viability of alternative value-creation models that support competitiveness, community empowerment, and environmental sustainability.

However, the results also point to enduring issues such as a lack of funding, differences in skill sets, and systemic injustices that make it difficult to apply sustainable ideas globally. Governments, corporations, and civil society must work together to address these challenges with the help of laws that encourage eco-innovation and bolster the social economy. In conclusion, a practical route to accomplishing the Sustainable Development Goals is provided by the convergence of eco-innovation and social economics. Societies may get closer to a future that is more robust, equitable, and ecologically friendly by strengthening communities, developing technical solutions, and incorporating environmental responsibility into corporate planning.

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