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# РАЗШИРЕНИ РЕЗЮМЕТА

УСТОЙЧИВО РАЗВИТИЕ -  
КРЪГОВА ИКОНОМИКА,  
КРИТИЧНИ  
ИНФРАСТРУКТУРИ,  
ЗЕЛЕН ПРЕХОД

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# EXTENDED ABSTRACTS

SUSTAINABLE DEVELOPMENT -  
CIRCULAR ECONOMY,  
CRITICAL INFRASTRUCTURES,  
GREEN TRANSITION

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XVIII INTERNATIONAL SCIENTIFIC CONFERENCE

**SUSTAINABLE DEVELOPMENT –  
CIRCULAR ECONOMY, CRITICAL INFRASTRUCTURES, GREEN TRANSITION**

**EXTENDED ABSTRACTS**

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XVIII МЕЖДУНАРОДНА НАУЧНА КОНФЕРЕНЦИЯ

**УСТОЙЧИВО РАЗВИТИЕ – КРЪГОВА ИКОНОМИКА, КРИТИЧНИ ИНФРАСТРУКТУРИ, ЗЕЛЕН ПРЕХОД**

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### **Thematic field I.**

#### **LONG-TERM SUSTAINABILITY FOR THE CIRCULAR ECONOMY**

The panel focuses on topics related to the emergence and challenges of the transition to the circular economy, analysis and delivering of good practices for transforming the economic relations from linear to circular models in various sectors and strategic industries, analysis of value added chains through the prism of the circular economy.

National and global policies and business strategies to implement the circular economy model (incl. sustainable consumption and production patterns), the benefits for the human health and public wellbeing, and the future challenges are also in the panel discussions. Sustainability thinking and eco design implementation in products and operations are also among the topics.

### **Тематично направление I.**

#### **ДЪЛГОСРОЧНА УСТОЙЧИВОСТ ЗА КРЪГОВАТА ИКОНОМИКА**

Във фокуса на панела са теми, свързани с възникването и предизвикателствата на прехода към кръговата икономика, анализ и представяне на добри практики за трансформиране на икономическите отношения от линейни към кръгови модели в различни отрасли и стратегически производства, анализ на веригите за добавена стойност през призмата на кръговата икономика. Национални и световни политики и бизнес стратегии за утвърждаване на модела за кръгова икономика (вкл. устойчиви модели на потребление и производство), ползите за човешкото здраве и общественото благосъстояние, и бъдещите предизвикателства са също обект на дискусии в панела. Устойчивост на мисленето и еко дизайнът в продукти, операции са също аспекти в тази област.

# LINKING CIRCULAR ECONOMY TO THE SHARING BUSINESS MODEL: CONCEPTS AND POLICIES

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## ABSTRACT

**Research background:** Digital platforms have become important and necessary tools for many people and businesses around the world. Citizens of a large part of the settlements today can use many shared services provided by the municipality, by private companies that use circular business models. Recent studies highlight the great potential of digitization and sharing practices to realize a circular economy. The aim of the circular economy is to radically increase resource efficiency at the system level by optimizing the value of products, components and materials, while minimizing resource inputs, minimizing waste, emissions and energy loss (Konietzko et al., 2019) New circular economy policies are being developed without, however, sufficient empirical evidence on the objectives and business models of providers of shared practices. Additionally, in many countries the governments adopted actions to stimulate the circular and sharing economies.

**Purpose:** The paper aims to study the policies in Bulgaria in the field of the sharing economy and the circular economy with view to identify and promote effective policies and sharing business models to benefit the circular economy on national, regional and municipality level

**Methods:** The research is based on content analysis of political documents and regulations and relevant publications combined with secondary data on national and EU level

**Findings and novelty:** The study reveals the lack of policies and regulations in the sharing economy and circular economy in Bulgaria enough appropriate that mutual benefit can be derived. The results of the research contribute first of all to fill up the gap in the literature regarding the general picture of policies in the field of sharing economy and circular business models in Bulgaria, and on the other hand, they bring out the importance not only of specific policies, but of their proper communication in order to benefit from the nexus between resource-sharing platform business models and the circular economy.

**Keywords:** sustainable development; sharing business models; platforms; circular economy; policies

**JEL codes:** M21, M38, O33, Q01

# SUSTAINABLE DIGITAL TRANSFORMATION OF THE TRADITIONAL BUSINESS

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## ABSTRACT

Digital business transformation is an organizational change that allows using the advantages of digital technologies to change all aspects of business: business operations, customer relationships and the business model of organizations. Research shows that digital transformation is a long process that requires a clear strategy and prioritization. Digital transformation is a factor in increasing the competitiveness of traditional business by solving problems related to the lack of personnel, limited digital skills of the staff, reaching a larger number of customers, and maintaining sustainable relationships with them, changing the business model, etc.

Sustainable digital transformation aims to achieve implementation of new technologies with the least possible destructive effect on the environment. The traditional businesses must assess the sustainability of their strategies; implement digital technologies to reduce the energy and resources inefficiencies; design products and services that are recyclable and reusable and thus sustain their presence in the established markets and meet the demand for green products. Company employees must be involved in the transitional process by training. Customers must become co-creators and ambassadors of sustainable products and services.

There are already good practices in sustainable digital transformation of the Bulgarian traditional sectors like precision agriculture, GPS mapping, 3D printing in manufacturing to reduce waste, implementation of digital technologies in forestry to monitor and plan activities, etc. Barriers to sustainable digital transformation of the traditional businesses are the high cost of technologies, lack of sustainable internet infrastructure, and the psychological barriers of innovations implementation. A major problem for the country in general and in the traditional is the lack of a workforce with digital skills and competences.

Combined efforts of the business, policymakers and other stakeholders are needed to overcome gradually the barriers in digital transformation of the sustainable traditional businesses.

**Research background:** Research results on the digital transformation processes in the traditional sectors and their green transition

**Purpose:** The paper objective is to discuss the interaction between the digital transformation and the “greening” of the traditional business sectors in Bulgaria

**Methods:** Review of secondary data sources and publications on the sustainable digital transformation of the Bulgarian traditional businesses

**Findings and novelty:** Good practices of sustainable digital transformation of traditional Bulgarian businesses exist. However, there are still barriers that must be overcome with the joint efforts of the major stakeholders.

**Keywords:** Sustainable digital transformation; traditional business; competitiveness

**JEL codes:** M110

# CIRCULAR ECONOMY IMPACT OVER THE BLUE GROWTH AND THE BLUE CAREERS

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## ABSTRACT

The circular economy business models demonstrate how a firm creates and captures value. They are used to help entrepreneurs and decision makers define and communicate their business ideas, or for established firms to experiment with potential changes to business practices. In with the circular economy issues is the concept of the sustainability in blue economy, and its outreach into its sectors for the blue growth – bridging to innovation and sustainability in the maritime sectors.

The focus of the current paper is to bridge the trends and drives in the circular aspects of the blue growth to the human resources needs and their up scaling. It became popular to name the vocations and skills in the blue economy as “blue careers”. Which are the specific blue careers skill and how to meet the entrepreneurs and managers in the blue growth sectors is one of the matters in the NRF supported research project of the Burgas Free University “Expectations of the Bulgarian Entrepreneurs and Managers towards the Continuing Vocational Education of the Human Resources in the Organisation”, and the paper is supported in its frames.

The system for career development is essential for the development of any circular economy sector, incl. the blue economy, because it offers well-developed human resource that can provide long-term economic growth and development. The paper deals with career development system in the blue economy, it covers all elements of a career development's system including vocational guidance for the professions in the blue economy and the creation of "blue career platform", training and qualification courses in the fields of blue economy and creation of university training programs for specialists with master's educational level. The areas where the project will intervene are the marine tourism, marine contractors, and marine ecology. In these areas of the blue economy our research showed a deficit - in some cases of skills in other of knowledge. The main problem is a mismatch between supply and demand.

In line the entrepreneurs and managers involved in circular economy practices are trying to achieve environmental and/or social goals. Towards the sectors of the blue growth the circular economy opportunities might be focused on growing numbers of green or eco-conscious consumers together with developing products from alternative or underutilized sources such as algae or waste. On the other side, more on the blue careers is to channel in platforms to rent goods or services, or managing environmental threats such as climate change or ocean pollution.

**Keywords:** circular economy; blue careers; restorative economy; blue growth; maritime sectors

**JEL codes:** O31, O33, O35, Q01, R11

# CONTINUING EDUCATION AND TRAINING FOR SUSTAINABLE EUROPEAN LABOR MARKET

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## ABSTRACT

Recent data shows that in Europe the overqualification rate is 22% in 2022, on average. In some countries, such as Spain and Greece, it hits more than 30%. The high extent of education-job mismatch creates long-run problems for labor market sustainability and economic growth in view of its negative impact on individuals, wages and public finances. Lifelong learning is one of the potential measures to tackle this problem. In this vein, the current study tries to find a relationship between the participation in continuing training and the rate of overeducation in the European countries. Correlation analysis and non-parametric testing are used. Both methods lead to similar outcomes showing that the countries with more active participation in formal and non-formal training have registered a lower degree of mismatch of the labor force having completed at least upper secondary education.

**Keywords:** continuing education and training; qualification mismatch; overeducation

## SCIENTIFIC RESEARCH APPROACH IN THE STUDY OF TOURIST DESTINATIONS - METHODS AND STAGES

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### ABSTRACT

The research is based on studies of the tourist potential in several municipalities in Bulgaria. The aim is to present the individual stages in the scientific research process in the planning and development of a tourist destination and their practical aspect. The object of research are unpopular developing destinations and the possibilities for sustainable utilization of their tourist potential. The study of the tourist potential, conditions and opportunities for sustainable development of each tourist destination requires the use of a wide palette of general scientific and private methods: quantitative, including questionnaire surveys, workshops with representatives of the local community and a wide range of interested parties, and qualitative, including polling and working with focus groups; use of empirical research methods: method of field observations; camera methods: collecting primary information, processing and analysis of facts and documents. Statistical methods include obtaining statistical data from institutional systems and registers, information from previous repeated manifestations of the studied events and processes, observations of studied objects to create initial data for statistics. Geographical research methods include spatial analysis of resource potential, localization of researched objects, as well as mapping to create source data for objects subject to research. Of the sociological research methods, work with focus groups, surveys, structured, semi-structured and in-depth interviews occupy an important place. For this purpose, a unified methodology for sustainable tourism development at the local level has been developed, including a methodological research framework, analysis and assessment of tourist resources and attractions, human resources and administrative capacity, infrastructure and material base available to the destination. The individual components are presented as subsystems of the territorial system for recreation and tourism and the study of the interrelationships between them, definition of strategic goals and priorities and proposals for sustainable tourism development. The research thesis declares that the achievement of sustainable development of a tourist destination at the local level is possible only by using a clear methodology and following successive scientific research stages in studying and planning, and to prove this specific examples and good practices approved in several municipalities are shown.

**Keywords:** destination management, tourist destination, sustainable development, planning and development

**JEL codes:** M38, R11, O2

# APPLICATION OF THE PRINCIPLES OF THE CIRCULAR ECONOMY FOR THE DEVELOPMENT OF SUSTAINABLE HEALTH TOURISM IN BULGARIA

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## ABSTRACT

The concept of the circular economy offers a path to sustainable growth, preserves the environment and its natural resources, on the basis of which health tourism develops, and maintains jobs. EU policies stipulate that the implementation of the circular economy principles will ensure sustainability in this specialised form of tourism based on the use of natural resources which must be preserved and developed without exceeding the permissible environmental capacity of the land. Researchers' expectations are that the implementation of the circular economy principles will ensure that health tourism remains a safe and fair space for all stakeholders.

This report aims to frame the transition to circular models in tourism in the context of health tourism, which Bulgaria needs to go through to create a basis for further policy development, assessment of research needs and involvement of stakeholders in key implications for health tourism development. The transition to a circular economy provides a major opportunity to achieve significant benefits for the country, such as direct benefits for the health and education systems and indirect benefits from reducing negative environmental impacts.

The targeted improvement of the infrastructure directly related to the development of this specialized, sustainable form of tourism (renovation of historic mineral baths, renovation of pipelines, improvement of park areas, establishment of spaces without car traffic), upgrading of the existing facilities and improving the professional qualification and language skills of the employees in the sector, would contribute to positioning Bulgaria on the international market as a competitive European destination for year-round health tourism, offering excellent quality at a competitive price.

**Research background:** Sustainability of Bulgaria's tourism, through the development of health tourism and application of circular economy principles

**Purpose:** The purpose of this report is to analyze the possibilities of Bulgaria for the development of sustainable, year-round health tourism, by applying the principles of the circular economy

**Methods:** The methodological basis of this report is a combined approach between quantitative and qualitative methods: content analysis was used.

**Keywords:** health tourism; sustainability; circle economy; natural resources

## THE COVID-19 CRISIS AND TOURISM IN BULGARIA

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### ABSTRACT

The tourism industry in Bulgaria is in crisis, caused by a global factor external to the industry - the COVID-19 pandemic. The pandemic has affected the overall socio-economic development, incl. tourism, globally, regionally and nationally. This circumstance demonstrates the important role of four key factors: the geopolitics of EU structures, the policies formulated by the World Health Organization (WHO) and the World Tourism Organization (UNWTO); and the national tourism policy, which is harmonized with them. The object of this study is the national tourist space of Bulgaria, and the subject of the study is an analysis of the relationships between the main groups of factors: geopolitical, economic and state-legal, and the tourism industry in the country, strongly influenced by the crisis COVID-19, as well as major trends in the development of tourism in the years of the pandemic.

**Research background:** The drastic decline in active mass international arrivals to Bulgaria in 2020 - 2022 period was larger than the number of Bulgarians traveling abroad. This was caused by the outflow of large international tour operators supplying tourists to seaside, and winter resorts in Bulgaria. Among the reasons for this are, besides the mass character of tourism, the policies of international, but not least and at the national level.

**Purpose:** Study of the main groups of factors: geopolitical, economic and state-legal, affecting tourism in the period 2020-2022 influenced by the crisis COVID-19, as well as major trends in the development of tourism in the years of the pandemic.

**Methods:** Content analysis, statistical analysis

**Findings and novelty** The development of tourism in Bulgaria, in the context of the COVID-19 pandemic, is undergoing a process of transformation under the influence of international, and national policies. A proactive national policy is needed, taking into account the changes that have taken place in the development of tourism, both in terms of supply and demand.

**Keywords:** COVID-19 pandemic; tourism policies; tourism trends

# THE ROLE OF DIGITAL MEDIA IN COLLECTING INFORMATION ON THE PRODUCTS OF WOOD INDUSTRY COMPANIES AS IMPORTANT TOOL TOWARDS CIRCULAR ECONOMY PRINCIPLES

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## ABSTRACT

The success of the company, among other things, depends on proper access to the market, the ability to collect information about customers, competitors and markets. In order to increase sales and reputation, companies need to know how to attract customers, and digital media today play a significant role in this. Furthermore, digital media have a significant, broad and complex impact on society and culture, therefore the application of digital media is important in improving the company's operations. Producers should provide as much information as possible about their company and its products in order to make it easier to get a new customer. This is the reason that encourages every company to use a digital media in its promotional activities. Today, companies using digital media approach their advertising strategies in a different, simpler and better way.

Scientists post that from the perspective of the circular economy principles the application of digital media and digital-platform usage is positively linked to circular economy principles implementation and competitive performance of the company. In that context, the aim of this paper is to investigate the role of digital media in gathering information about the products of companies in the field of wood processing and furniture production as important tool towards circular economy principles. A research frame were wood furniture companies operating in Croatia employing more than 30 people. Thirty companies were analyzed following Edkent Media (2018.) and Straight North (2014) principles.

Although the power of digital media is great, it has not yet fulfilled its potential in the wood furniture production sector. In examples of the use of social networks, it can be seen how companies favor Facebook and neglect other networks such as Twitter and YouTube. It is desirable to be more active on several social networks, so that as many people as possible are familiar with the product and service. Social networks are a great tool to engage target consumers. Analyzing the websites of wood industry companies in the Republic of Croatia in general, we can conclude that they have adapted their websites. Most of them have a website, which in the eyes of visitors has a modern look, pleasant content and user experience. The proposal for improvement, considering the conducted analysis, would go in the direction of SEO optimization. Due to the fact that they are visible in their circle of specialized queries on search engines, but they are not outside, it is unlikely that a random customer who does not even know they exist will come across them by accident. The biggest drawback of the researched companies was weak interaction with potential customers. Customers like to get feedback from previous customers, only two companies used this option. Here one can conclude that most companies provide enough information about the product and services, but neglect the relationship with consumers. Through good interaction with customers, it will be easier to recognize consumer needs. In order for companies to be successful, it is necessary to offer customers digital services and activities, such as E-commerce, reviews, registration, because this gains the trust of customers. Wood industry companies must still work on this, if they want to keep up with the times.

**Keywords:** wood industry; digital media; information; circular economy

# **DIGITIZATION OF THE INSURANCE MARKET IN THE REPUBLIC OF BULGARIA- PROBLEMS AND SOLUTIONS**

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## **ABSTRACT**

Digital solutions are the basis of the future development of the insurance industry. The implementation of electronic tools for insurance also causes serious controversy, because as insurance is very sensitive and conservative about any change. In practice, there are still significant obstacles to the entire insurance process happening entirely online.

The restrictions are of a different nature, as most are concentrated in the regulatory framework, and the rest are purely technological - both on the part of the insurers and on the part of the insured. Despite the difficulties, insurers on the Bulgarian market offer various forms of digital platforms for insurance. There is no insurance company that has not digitized individual processes or its entire activity to varying degrees.

The present report examines the digital capabilities of 34 non-life insurance companies and 14 life insurance companies operating on the territory of the Republic of Bulgaria. The purpose of the research is to outline the main problems in the digitalization of insurance services and to propose possible solutions. To achieve this, the customer satisfaction of the users of digital insurance services was studied through short surveys. Expert opinions of company employees who test and approve new digital solutions in insurance companies are presented.

The most common problems that arise when using and servicing a digital insurance service are outlined - technological, regulatory and time-related.

Statistically, the share of insurance services that the Bulgarian market has digitized is still not taken into account. Very few companies offer a completely on-line insurance product, and mainly in the field of "Accident" insurance, in the category of those occupying the largest market share - Automobile insurance, it is not yet possible to fully digitize them.

**Research background:** The report examines the digital capabilities of 34 non-life insurance companies and 14 life insurance companies operating on the territory of the Republic of Bulgaria.

**Purpose:** The purpose of the research is to outline the main problems in the digitalization of insurance services and to propose possible solutions.

**Methods:** To achieve this, the customer satisfaction of the users of digital insurance services was studied through short surveys. Expert opinions of company employees who test and approve new digital solutions in insurance companies are presented.

**Findings and novelty :** The most common problems that arise when using and servicing a digital insurance service are outlined - technological, regulatory and time-related.

**Keywords:** digitalization; insurance; market

**JEL codes:** M1

# ENTREPRENEURIAL VISION FOR SUSTAINABLE BUSINESS DEVELOPMENT THROUGH DIGITALIZATION

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## ABSTRACT

**Research background.** One of the main problems of modern society is the excessive, inefficient and insufficient use of resources, a significant part of which are non-renewable and/or slowly recovering, which leads to the disturbance and pollution of the ecological environment. The use of the linear consumption model still predominates, where products that have used certain resources to be produced instead of being recycled after use are thrown away. This requires a transition to a new model that optimizes the process of using resources and leads to a sustainable state of nature and society, which is the basis of the circular economy. The understanding of the problem by the entrepreneurs and the implementation of specific measures to solve it is particularly important. A significant factor for the adoption of the new model may be the digitization of entrepreneurial activity using digital tools and solutions to accelerate and scale the circular economy. This Digitalization Process, as a prerequisite for sustainable development and the realization of the principles of the circular economy, can be considered in this case from two sides - from the point of view of business, and from the point of view of the culture and behaviour of society and specifically of consumers.

**Purpose.** This publication aims to examine the entrepreneurial's vision towards adopting the principles of the circular economy and sustainable development through the digitization of business and the opportunities that digitization provides for solving this problem.

**Methods.** In order to investigate the degree of entrepreneurial attitude regarding business digitization and the possibilities for sustainable development through digitization, a quantitative research approach has been applied. The sources that were used include a questionnaire survey and the analysis and evaluation are based on statistical methods.

**Findings and novelty.** The findings presented in this paper include entrepreneurs' understanding of the benefits of the circular economy and business sustainability when using digital technologies

**Keywords:** digitization; entrepreneurial activity; circular economy; sustainability

**JEL codes:** L26, Q55, Q56

## AN APPLICATION OF THE THEORY OF PLANNED BEHAVIOR IN TOURIST CONSUMPTION OF LOCAL FOODS

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### ABSTRACT

Based on the theory of planned behavior and analysis of destinations in Bulgaria like Central and Western Balkan Mountain, Sofia district, Radomir, Smolyan, Ardino etc., this paper has proposed suggestions on designing tourist products in the provinces of Bulgaria in a sustainable manner. The ambition is to encourage rural areas to make full use of local superior resources and promote the prosperity of local rural economy. The research is based on field research of the specific places with the cooperation of local authorities and different organizations. The paper begins with a literature review of the theory of planned behavior concerning the role of tourism in sustainable destination development, considering the specificities of rural tourism, and the contribution of this tourism to sustainable development of rural areas. The literature review is followed by a case study for several regions in Bulgaria. Via qualitative and quantitative approach, the case studies identify the views of diverse stake holders (visitors, public, private agents of supply, residents and consultants). The methodology and observations under the analysis are presented and open for discussion. The paper ends with some prescriptions and offers for marketing strategy creation.

**Keywords:** rural tourism, marketing strategies, sustainable development, theory of planned behavior

**JEL codes:** M3

# **CIRCULAR ECONOMY FOR ONE HEALTH - common conceptual roots and effective empiric interactions for a green future**

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## **ABSTRACT**

**Background:** The fourth industrial revolution (4IR) era is marked by the advent of artificial intelligence and the breakdown of traditional boundaries between different spheres of life. This creates a demand for the unification of different ideas and fields, such as “One Health” (OH) and “Circular Economy” (CE). Although these may seem divergent, they share common philosophical roots and can work together to create a healthy green future, supporting sustainable development and well-being.

**The aim** of the present report is twofold: 1) to introduce the OH paradigm and the possibilities provided by the interaction with the ideas of moving from a linear to a CE; 2) to present successful policies, pathways, and practices uniting the pursuit of a healthy life and the principles of the CE. The interrelationships between the concepts of OH and CE are analyzed from the positions of a medical doctor, a public health researcher, and a participant in several initiatives related to the integration of health impact assessment as a strategic goal of the CE.

**The distinct concepts:** Every academic field has its theories and terms. In public health, OH is a planetary movement that recognizes the fundamental connection between the environment, human and animal health. In this sense, OH finds support in the holistic approaches of the CE, which are a practical opportunity to study the integrated influence of all environmental factors on health.

**Resilient collaborations:** The World Health Organization has been supporting research in the scientific field of "circular economy and health" for years. There is empirical evidence to support the success of European models that link health and ecology.

**Conclusions:** The potential of intersectoral collaborations to promote health and build a green future is undeniable. This need is recognized in the field of public health and at the national level. In the 4IR era, swift action is necessary to ensure that overall societal development does not lag behind EU member states.

**Keywords:** one health; circular economy; health promotion; quality of life; public health

**JEL code:** I1

# INCORPORATING "CIRCULARITY" IN ECONOMIC EDUCATION AND TEACHING OF ECONOMICS<sup>1</sup>

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## ABSTRACT

**Research background:** The circular model provides a way to solve significant challenges: from the recovery of resources to the use of waste. The importance of "circularity" requires that it be included in education and teaching - from the concept, through technology, to the way we live and the choices we make every day. Economic education and teaching in economics is called to change the traditional model, so that it is consumed meaningfully and sustainably, to develop a circular society. The dissemination of the circularity concept in education and teaching, as well as research on the use of 'circularity' to enhance economic learning, is in its infancy in the scientific literature. The phenomenological advantages of the circular economy are the subject of many studies, but only a limited number of them address educational problems and the reasons that give rise to them. Understanding the benefits of incorporating 'circularity' into economic education and improving learning facilitates the transition to a circular economy, and provides grounds for future research.

**Purpose:** The purpose is to respond to the indicated gap in scientific publications by identifying the place of the circular model in economic education and teaching, and its impact on the transition to a circular economy. The research also aims to reveal potential barriers to the incorporation of 'circularity', ways to overcome them, and finally, to consider possible approaches to incorporation.

**Methods:** It is based on an author's framework, including observations, review and analysis of information sources related to the topic, interviews conducted with university professors and with senior teachers of economic disciplines. The circular model concept is about change in the economy, thus the research uses methods to create real change in the economy based on economic education. Based on the conclusions drawn, three methodological issues are identified that should be taken into account when using circularity data in the process of learning improvement. Furthermore, by integrating the questions with relevant scientific publications, theoretical directions for future research are suggested.

**Findings and novelty:** The research topic concerning the incorporation of "circularity" is valuable in its understanding of the importance and beneficial influence of economic education and teaching on the transition to a circular economy. The study uses the observation method and thus finds some difficulties in education and teaching and also makes the study relevant to real-world challenges. The author believes that the findings will serve the use of "circularity" in economic education and teaching by helping to improve it and at the same time stimulating future research.

**Keywords:** education; teaching; circular economy; sustainability

**JEL codes:** A11; A20; I25; Q01

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# THE IMPACT OF THE CIRCULAR ECONOMY ON SUSTAINABLE DEVELOPMENT IN GERMANY

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## ABSTRACT

This paper presents a comprehensive analysis of the effect of the circular economy on the three dimensions of sustainable development in Germany: economic, environmental, and social. We examined the impact of various sources of circular economy i.e., renewable energy, reuse, repair and recycling and how these sources influence economic, environmental and social dimensions of sustainable development. For this purpose, we collected time series data from 2000 to 2022 and applied both linear and non-linear ARDL methods. We find a major impact of circular economy on sustainable development for all three dimensions. We found that the impact of each source of circular economy has different impacts on all three dimensions of sustainable development. While renewable energies and reuse source reduces the impact on the environment, recycling source has no effect, and repair source increases greenhouse gases emissions. However, repair is the only source of the circular economy that has a positive impact on all three dimensions of sustainable development. Finally, we find renewable energy, repair and recycling has inverse impact on unemployment. It is suggested that policy makers should design suitable, efficient and targeted measures to increase the role of each source of circular economy for sustainable development.

**Keywords:** circular economy; sustainable development; renewable energy; recycling

**JEL codes:** Q01; Q22; Q54

**Thematic field II.**  
**RESOURCE EFFICIENCY AND ENVIRONMENTAL BENEFITS**

Обект на дискусии в панела ще са предизвикателствата, възникващи от климатичните промени, техните последици и негативни ефекти върху околната среда, както и иновативни решения за преодоляването им. Сред основните теми в панела ще са и развитие на моделите на зелена и синя икономика в индустрията, услугите, туризма, екодизайна, законодателни промени и ефективни управленски решения за намаляване на потреблението на ресурси, създаване на материали, продукти, услуги и бизнес модели за по-дълга употреба и запазване на стойността им. Ще се дискутират целите за устойчиво развитие чрез нарастването на сигурността на доставките на ключови суровини, поправката и повторното използване, генерирането и управлението на отпадъци, търговията с вторични суровини в и извън ЕС.

**Тематично направление II.**  
**ЕФЕКТИВНО ИЗПОЛЗВАНЕ НА РЕСУРСИТЕ И ПОЛЗИ ЗА ОКОЛНАТА СРЕДА**

The panel will discuss the challenges arising from climate change, its consequences and negative impacts on the environment, as well as innovative solutions to overcome them. Among the main topics in the panel will be the development of the models of green and blue economy in industry, services, tourism, eco-design, legislative changes and effective management solutions to reduce resource consumption, create materials, products, services and business models for longer use and preserve their value. Sustainable development goals through increasing security of supply will be discussed key raw materials, repair and reuse, waste generation and management, trade in secondary raw materials within and outside the EU.

# WATER IN THE CIRCULAR ECONOMY: STATE OF PLAY IN BULGARIA, HUNGARY, ROMANIA AND SLOVENIA

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## ABSTRACT

**Research background:** The EC adopted the new circular economy action plan in March 2020 as one of the main building blocks of the European Green Deal. The expectations are that the EU's transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs in EU countries. Water is at the core of sustainable development and is critical for socio-economic development, energy and food production, as well as healthy ecosystems and the benefits they deliver to people. Water recycling and reuse as central to a circular economy approach is in a focus of this paper.

**Purpose:** The paper deals with current situation of implementation of circular economy concept in the water sectors of the four countries. It aims not only to describe the state of play but the most important objective is to reveal what are the major gaps and how they can be filled by future research projects and programmes.

**Methods:** The papers summarised results collected from four questionnaires filled by experts of investigated countries as well information and data from other studies and datasets of OECD, Eurostat and national sources.

**Findings and novelty:** The study reveals only a few cases in the countries studied, relevant to the concept of circular economy and as well as niche markets in the four countries. The implementation of energy efficiency and non-revenue water reduction programs that have recovered the investments in a short period while saving water and energy and increasing the amount of people with access to services; the recovery of resources from wastewater and the creation of new revenue streams by using for own needs or selling energy, water, and fertilizers to cover operating costs; the application of circular economy and resiliency principles in long-term strategies to become carbon neutral, recover resources from water and preserve the environment while providing water services; the assessment of the full potential of the existing infrastructure, resulting in huge savings in capital investments.

**Keywords:** water; circular economy; natural resources

**JEL codes:** Q25; Q28; Q53; Q56

## ON A REVITALIZED AND PROSPECTIVE PHENOMENON OF ECONOMIC MAINSTREAM

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### ABSTRACT

In the report, we follow a descriptive research strategy, historical-chronological approach, Case Study method, matrix method, etc. This study is divided into three parts.

Part one: It uses a historical-chronological approach. It covers the period from BC - 100 years before Christ to the 60s of the XX century. The ancient experience of China, the Medieval of an Italian province is presented. For Bulgaria, the application of mathematical methods, implementation of product diversification for the use of waste is emphasized. In more recent times, the clustering for the full utilization of raw materials, solving problems related to the restoration of the natural environment.

Part two: The systemic legislative and organizational aspect of the circular economy from the beginning of the 1970s to today is presented - China, Japan, etc. The high-tech approach of the USA is included. In this part of the research, a case study of Italian women entrepreneurs is developed. They develop fabric production technology, reaching haute couture.

Part three: In this part of the research, a matrix of the asymmetric interaction in the circular economy is constructed. It includes two main vectors: circular economy orchestration level and circular economy scope. They are multiplexed with specific dimensions.

In conclusion, it has been established that we have not yet witnessed the joining of the beginning and the end of the line, which would give grounds for forming a closed circle.

**Keywords:** Italian experience; product diversification; conducting the circular economy; circular economy 2.0.

**JEL codes:** A11; A14; B16

## SOIL MANAGEMENT WITH THE APPLICATION OF COVER CROPS

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### ABSTRACT

Worldwide, farmers are striving to maintain and increase the amount of humus in the soil, which is directly related to proper soil fertility management and, above all, the root management of plants grown in the soil. One way to achieve this is with the use of intercrops (also called cover crops). These crops stimulate humus formation, they build the condition for the active life of beneficial microbial organisms by feeding them and leave valuable nutrients in the soil for the next crop, providing it with the opportunity to increase its yield. The presence of living roots for most of the growing season increases soil energy, the amount of microorganisms and nutrient cycling.

The purpose of this study is to track the use of good agricultural practices such as the application of microbial fertilizers, "smart" insecticides and fungicides, mycorrhizal treatments, and biological ones to degrade crop residues under minimum tillage technologies coupled with cover crops application.

The observations were made in two production areas in northern and southern Bulgaria. For the implementation of the experiment, two neighboring fields were used, if possible, with the same soil and climatic conditions characteristic of the region. The first field was applied standard crop cultivation technology, while the second field was applied an innovative approach by switching from minimal tillage to no-tillage technology of the same crops with the application of suitable cover crops. During the two years of observation, different cover crops were used such as cabbage, legumes, crops with a short growing season such as buckwheat and calendula, rye - suitable for late autumn or early spring, as well as sorghum with its extremely powerful root system. The main crops for observations are wheat and corn, and during the growing season some of the growth and productive characteristics of the plants were observed. Biostimulants, natural microbial fertilizers and biological insecticides of a Bulgarian company were used in the process of growing the crops ([amiti.org](http://amiti.org)).

A major task in soil fertility management is to maintain humus, and this process is mostly related to the management of roots in the soil. The right combination of a large number of factors, such as good investment in agricultural machinery, knowledge of the vegetative characteristics of the main and cover crops, providing constant soil cover, proper crop rotation, judicious use of the soil-climatic characteristics of the area, can ensure good plant-microorganism symbiosis and conserve soil energy.

**Keywords:** soil management; cover crops; biodivesification; biostimulators/insecticides; microbial fertilizers

**JEL codes:** A11; A14

# **PUBLIC ASSESSMENT ANALYSIS OF SUSTAINABLE TOURISM DEVELOPMENT IN ALBENA NATIONAL RESORT**

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## **ABSTRACT**

Despite the wide acceptance of the sustainable development concept, its implementation is still limited due to the difficulty of its practical application. The challenges are related to the comprehensive assessment of tourism impacts on the environment.

Research on the problem in Bulgaria is still scarce. The known publications are at national level and do not give a clear picture of tourism sustainable development and its problems at regional and local levels.

An appropriate local level for monitoring sustainable tourism development is the national resort - it is possible to achieve purposeful use of local resources, combined with its effective control, while taking into account the interests of all parties concerned.

The extent to which activities in the tourism sector affect the local environment is the aim of the current analysis of public assessment. Tourism undoubtedly has its positive impact on employment opportunities and local communities' development, but it also leads to negative effects on the natural features of the respective territories.

The research includes a field survey of the opinion of the general public (residents of the municipality of Balchik) and users of tourist services in Albena national resort. The survey was conducted in the period June - July 2021.

The results of the conducted research and their analysis allow two main conclusions to be drawn:

The first conclusion is that through a survey including visitors and local population of a given tourism destination it is quite possible to determine the degree of tourism positive and negative impacts on it.

The second conclusion is that a) tourists and local population have relatively similar in their intensity and direction perceptions of tourism impacts and b) both tourists and local population in the destination believe that negative environmental impacts do not yet threaten tourism sustainability in Albena national resort.

**Keywords:** tourism; sustainable development; assessment, environment; impacts

**JEL code:** Z32

## INCREASING RESOURCE EFFICIENCY BY PREDICTIVE MAINTENANCE OF METALLURGICAL AGGREGATES

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### ABSTRACT

The continuous nature of metallurgical technologies and the intensification of production increase the risk of damage to high-temperature equipment during the technological process. The destruction of the structural integrity of the refractory insulation of this equipment leads to the forced interruption of production and significant costs of emergency response and require measures to be taken to reduce the risk of such situations. An opportunity to solve these problems in the metallurgical industry is the introduction into the production process of sustainable systems for making informed decisions and predictive maintenance of equipment, based on continuous or periodic monitoring of the condition of refractory insulation of high-temperature furnaces and auxiliary equipment.

Predictive maintenance of technological equipment and aggregates, based on an assessment of their current condition, extends their life, reduces downtime, maintains the optimal level of production, guarantees compliance with the exact delivery time of production (raw materials, materials, energy). This type of maintenance allows effective management of equipment maintenance, reduced costs of materials for current and major repairs according to the actual conditions of machines and units. The application of all this is directly related to the increase of the resource, environmental, operational and economic efficiency of technological facilities. A procedure is presented for assessing the real condition of steel ladles based on periodic monitoring results as part of a decision-making system for predictive and safe use of their maximum resource.

**Research background:** development of procedures for infrared diagnosis.

**Purpose:** monitoring of the refractory insulation condition in high-temperature metallurgical furnaces.

**Methods:** Industrial experiments and Mathematical modelling.

**Findings and novelty:** development of procedures for a decision-making system in the predictive and safe use of the maximum resource of steel ladles.

**Keywords:** infrared diagnosis metallurgical furnaces; decision-making system; predictive maintenance.

**JEL codes:** L6, L60, L61

# DIGITALIZATION AS A FACTOR FOR THE SUSTAINABLE DEVELOPMENT OF HOTELS, SPECIALIZING IN OFFERING FAMILY HOLIDAYS

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## ABSTRACT

The modern tourism market, dominated by globalization, is increasingly criticized in relation to climate change and the carbon footprint of travel. At the same time, tourists' ecological awareness is growing and they are seeking pure and unspoiled nature in addition to comfort and convenience during their vacations. This is particularly relevant for families with children, who progressively take into account the hotels' green balance and digital presence when choosing and booking their trips. Intense competition in the industry also requires finding new competitive advantages and digital solutions to meet the progressing demands and challenges faced by businesses. Therefore, to guarantee their competitive position, hotels specialized in offering family vacations must focus on sustainable development, new technologies, and smart management systems.

In this context, digitalization is an essential factor for their sustainable development. It supplies them with the opportunity to provide personalized services to guests, i.e., specialized products and care tailored to their individual needs, requirements, and preferences. This builds lasting relationships with visitors, optimizes communication with them, and gives an attractive experience. Thus, focusing tourism offerings on green technologies affords significant competitive advantages. The sustainable development of hotels for family vacations is of great importance for their successful positioning in the market, the preservation of tourism resources, and the satisfaction of tourists. Balancing the social, economic, and ecological aspects of family-oriented hotels contributes to building an incomparable profile and differentiation from competitors.

In conclusion, in the saturated tourism market, digitalization is an important factor for the sustainable development of hotels offering family vacations and creating a positive image. The use of innovative technologies and digital tools improves management efficiency, enhances communication with guests, increases the number of reservations and tourist satisfaction. Furthermore, it reduces harmful impacts on the environment while ensuring long-term economic sustainability.

**Keywords:** digitalization; sustainable development; family hotels; new technologies; smart control systems

**JEL codes:** L83, Q26, Q56, Z32, Z33

# FOOD WASTE AND OUT-OF-HOME DINING: THE CASE OF UNIVERSITY CANTEENS IN BULGARIA

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## ABSTRACT

Food waste is a global problem that has an impact on the entire food chain and affects each and every one of us. The problem is multifaceted and has a number of negative consequences. Food waste has a negative impact on the environment, resources, the climate and leads to an increase in economic and social costs. Food safety, feeding the planet's growing population and achieving sustainable development depend on the ability of current generations to tackle food waste and loss of food at every stage of the food chain. The current study assesses the state of food waste in out-of-home dining (based on the case of university canteens) by identifying the categories of foods in which the waste is greatest. The study used the method of direct observation in three university canteens.

The results can be used by stakeholders in developing appropriate tools and policies to solve the problem and meet the UN's global development goals. Meeting target 12.3 requires globally to halve food waste per capita at retail and household level and reduce food losses along the food production and supply chain, including post-harvest losses by 2030.

**Research background:** In public catering facilities, which include places for dining of children, pupils and students, military personnel, as well as persons placed for treatment in hospitals and in prisons, mass food consumption takes place and is considered a source of large amounts of food waste. Reducing food waste in public sector establishments is essential for public costs as well as the environment.

In Bulgaria, there is a lack of data and research on the problem of food waste in public establishments.

**Purpose:** As a first-of-its-kind study in Bulgaria, the research team tries to determine the scale of the problem related to the generation of waste while eating in public establishments. The aim of this study is to make a qualitative assessment of the generation of food waste in out-of-home dining. University canteens, which are under the management of University Canteens and Dormitory Department of the UNWE, were selected for the subject of the study.

**Methods:** The study was conducted by performing observation in 3 university canteens, at different meal times (breakfast, lunch and dinner) within three days of the week. The method of digital photography is also applied to identify the categories of foods that are most often wasted.

**Findings and novelty:** For the first time, food waste generated by consumers in public catering establishments (university canteens) in Bulgaria has been tracked. The categories of foods that are most often wasted and for which mandatory measures need to be taken have been identified. Work on raising awareness of the problem by both consumers and businesses that provide the food service out-of-home is recommended as a first step to tackle the problem.

**Keywords:** food waste; out-of-home dining; university canteens; Bulgaria

**JEL codes:** Q18, Q53

## USE OF WOOD IN SUSTAINABLE ARCHITECTURE

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### ABSTRACT

**Research background:** Importance of wood as a sustainable and renewable material presumed its large scale use in architectural structures for centuries. In order to analyze the potential of prospective application of wood in build environment in Bulgaria it is instrumental to investigate the regional specifics in historical development of wooden structures in traditional building practices of the Mediterranean region and in particular on Balkan region.

**Purpose:** Understanding the evolution of building practices and identification of sustainable approaches. Many traditional building practices that involve the use of wood are inherently sustainable, incorporating low-impact and resource-efficient techniques. A historical review of the use of wood in architecture can identify these sustainable practices and help us learn from them. A historical review of the use of wood in architecture can provide insight into the stages of development of wooden structures over time and reveals specifics of use of wood according to different cultures and how the technology for working with wood has evolved over time.

**Methods:** Historical overview of traditional building practices and their potential prospective applicability .

**Findings and novelty:** The use of Life Cycle Analysis (LCA) and Life Cycle Cost Analysis (LCCA) methods to assess the performance of timber structures in the development of the built environment reveal the great potential of wooden structures for prospective use.

**Keywords:** timber structures; sustainable architecture; LCA, LCCA

**JEL codes:** Q01, R11, R31

# **SUSTAINABILITY FOOD SYSTEMS BASED ON ORGANIC PRODUCTION DURING UKRAINE'S RECOVERY**

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## **ABSTRACT**

Research overview: the post-war Ukraine's recovery requires the implementation of balanced organizational and economic measures aimed at developing food systems. Such sustainable solutions can be implemented through the implementation of the European Green Deal and by increasing the efficiency of organic production, its environmental friendliness and optimal use of agricultural land. The global organic market is growing steadily, and Ukraine has significant potential to develop production and exports of such products abroad. The global marketplace is strengthening the position of organic food products, with most consumers concerned about their own health and countries concerned about the environment. During martial law, organic producers in Ukraine faced ensuring security challenges, including the destruction of agricultural land, rising prices, logistical difficulties in domestic and foreign markets, etc. The application of a balanced state policy in the field of organic production, balanced and economical use of natural resources and solving environmental problems will contribute to the development of food systems during post-war Ukraine's recovery.

The aim of the study is to implement the European Green Deal and circular economy during post-war Ukraine's recovery in the sustainability food systems based on organic production.

Methodology: statistical and economic methods; monographic method; SWOT analysis.

Discoveries and novelties for the scientific field: a circular approach to food production and distribution is proposed; mechanisms to support the sustainability of food systems based on organic production during Ukraine's recovery have been developed; solutions for sustainable food systems and organic production during Ukraine's recovery are substantiated; directions for improving institutional state support for producers of organic products and infrastructure development during Ukraine's recovery are proposed.

**Keywords:** European Green Deal; organic production; circular economy; food systems; sustainability.

**JEL codes:** O13; Q16; Q32

### **Thematic field III.**

#### **FINANCIAL ASPECTS, INVESTMENT STRATEGIES AND ACCOUNTABILITY IN THE CIRCULAR ECONOMY**

The panel will discuss and seek solutions for topics related to problems of financing the circular economy, innovative trends in environmental accounting, applications of environmental reporting standards. Major economic, legal and political challenges arising from the lack of standardization, as well as micro- and macro-level efforts to overcome their negative impacts will be the focus of the panel.

### **Тематично направление III.**

#### **ФИНАНСОВИ АСПЕКТИ, ИНВЕСТИЦИОННИ СТРАТЕГИИ И ОТЧЕТНОСТ НА КРЪГОВАТА ИКОНОМИКА**

В рамките на панела ще се дискутират и търсят решения на теми, свързани с проблеми на финансирането на кръговата икономика, съвременни тенденции на екологичното счетоводство, приложения на стандартите за екологична отчетност. Основни икономически, правни и политически предизвикателства, възникващи от липсата на стандартизация, както и усилията на микро- и макроравнище за преодоляване на негативните ефекти от това ще са във фокуса на представените разработки в панела.

# PRINCIPLES AND APPROACHES FOR DISCLOSURE OF NON-FINANCIAL INFORMATION BY ENTERPRISES IN COMPLIANCE WITH ENVIRONMENTAL POLICY

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## ABSTRACT

Modern challenges related to the implementation and observance of environmental requirements and norms in the implementation of economic activity determine the need for the creation, presentation, and disclosure of accounting information by enterprises for the interaction between business and the environment. The policy of the European regulatory bodies for the protection of natural resources is aimed at adapting the accounting systems of economic entities in the process of monitoring and managing environmental risks.

**The purpose** of the scientific development is the study of the current projections of accounting as an information system through the prism of the sustainable use of natural resources and the effective management of the circular economy. The focus is on delineating the possibilities for practical testing of the requirements of the applicable accounting standards for the disclosure of non-financial information by enterprises, with a view to identifying and measuring the impact of economic and anthropogenic activity on the environment.

**The methodology** of the study includes a critical-constructive analysis of a portfolio of various author's productions and a literature review of the requirements of the environmental standards, regarding the presentation of information in the financial statements of the enterprises about the activities with a direct impact on the ecological environment. On this basis, proposals for improving the model for disclosing non-financial information related to the observance and implementation of ecologically sustainable policies for nature protection are argued. Through this approach, investors and all interested parties are provided with the necessary awareness of the financial stability and sustainability of the reporting enterprise, and the results of the implemented policy in relation to climate issues.

**Keywords:** accounting; non-financial information; environmental policy; accounting standards.

**JEL codes:** M41; Q56

# IMPACT ON CYBERCRIMES AND PERSONAL DATA PROTECTION CRIMES ON MACROECONOMIC SUSTAINABILITY

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## ABSTRACT

**Research background:** With the social, economic, and technological development worldwide, digitalization is a factor changing international business, as it creates global markets and is driving small businesses to become micro-multinational companies (Brennen, Scott and Daniel Kreiss. (2014). Digitalization and Digitization). Still, digitization hides many new challenges for society, such as - hacker attacks related to the leakage of personal data, financial crimes, and violation of intellectual property rights. Even digital currencies (electronic money, which is fully regulated) are already being used for payment and execution of internal and external trade transactions. In this respect, cybercrime is becoming a global problem. Necessary security measures to protect the public interest from cybercrimes and other relevant dangers must be taken by the responsible institutions (including EU), the regulators, and society, in general. However, it is difficult to identify the perpetrator, due to its anonymous nature. Hence, it is necessary to look for different mechanisms against the problem related to personal data protection.

**Purpose:** The purpose of the research is to outline some contemporary problems caused by digitalization and the relevant solutions to be proposed.

**Methods:** The adopted research methods are logical, deductive, and comparative methods, as well as the desk research method and analysis of the relevant literature. Comparison from data provided by the National statistical institute of Bulgaria, Eurostat, and the Digital Economy and Society Index is used as well.

**Findings and novelty:** Modern society needs to adapt to the risks and dangers that arise from innovation and digitization. This new era calls for different and updated legislative reforms related to cybercrime prevention and the sociology of law. Our privacy can be violated at any time. However, there is a tangible legislative gap hence it is necessary to look for different mechanisms for protection. The paper outlines good European practices that could be used as a basis for improving national regulations as well.

**Keywords:** digitalization; crimes; human rights; prevention; reforms

**JEL codes:** K0, O3, O0

## GREEN FINANCE, FINANCIAL REPORTING AND EVALUATION

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### ABSTRACT

**Research background:** Greening the financial system goes beyond lending and investment standards by considering both the impact of environmental and social risk on the financial system, and the impact of the financial system on environmental and social risks. The greening of the financial system will require going beyond current measures. The accounting and audit standard-setters already require climate-related risks to be considered in the financial statements. As with any other risk, investors need the corresponding information from financial statements and audit reports to make effective investment, voting and other engagement decisions, as well as to fulfil their own net zero commitments.

**Purpose:** The aim of this paper is to analyse and systematize the key challenges to understand the role of green financing in economic growth, their valuation and financial reporting.

**Methods:** Research is based on the review of relevant and available professional and academic literature. The methodology used is based on general scientific methods of scientific knowledge - analysis, synthesis, induction and deduction.

**Findings and novelty:** The author put forward the provision on the valuation and measurement of green finance in contexts of financial reporting. The article also examines the provision on the existence of causal relationships between the "green" financial and "green" economy and analyzed the challenges of management of green finance in Bulgaria. Further research is needed to mobilise the necessary resources, bridge obvious knowledge gaps and make progress in addressing questions on how to close the green finance gap.

**Keywords:** green finance; financial reporting; evaluation; measurement

**JEL codes:** M41, O13, O16

## SOFT COMPUTING MODELS FOR FINANCIAL MANAGEMENT OF THE COMPANY

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### ABSTRACT

Soft computing models for financial management of the company represent intelligent platforms for decision-making support under uncertainty conditions. These are systems of accounting and/or financial metrics and expertise that are built and function based on genetic algorithms, neural networks, and fuzzy logic. In their architecture and work, they integrate the accuracy and unambiguity of economic information with the subjectivity and individuality of human thinking. At the same time, they provide fast, efficient and sustainable reproduction of human thinking even with significant volatility of the assessments of the financial status, effectiveness, cash position, and market representation of the company. They contribute to the increasing rationality of capital raising and investment, regardless of the rapid change of the surrounding environment, the development of technologies, and the improvement of the business organization. In particular, soft computing models for financial management based on fuzzy logic, depending on their logical rule structure, are implemented as fuzzy linguistic model, fuzzy relational model, or Takagi-Sugeno fuzzy model. They generate an accurate result after fuzzification of the input information, rules processing, and defuzzification. In this way, the promising trends for the introduction of controlled approximation in microeconomic research are realized in practice. They provide great opportunities for use in the context of the rapidly digitization, fast changing, and high-risk modern business environment.

**Keywords:** soft computing; fuzzy logic; business economy; financial management; company

**JEL codes:** C58, D61, M21, M41

**Thematic field IV.**  
**CRITICAL INFRASTRUCTURE PROTECTION - FROM SECURITY TO RESILIENCE**

Critical infrastructure and the operations impact all aspects of sustainability. Infrastructure and especially critical infrastructure is crucial for the development of economies. Studying these impacts on the surrounding environment in the course of building the infrastructure is of utmost importance in the current dynamic and turbulent political and economic space and time. Predicting the processes and implementing adequate measures to overcome the negative impacts of the facilities on sustainability would allow to integrate preventive, corrective and ongoing maintenance to ensure the critical infrastructures within desired limits will be among the aspects discussed in the panel.

**Тематично направление IV.**  
**ЗАЩИТА НА КРИТИЧНИТЕ ИНФРАСТРУКТУРИ – ОТ СИГУРНОСТ КЪМ УСТОЙЧИВОСТ**

Критичната инфраструктура и операциите, които се извършват в нея оказват влияние върху всички аспекти на устойчивостта. Инфраструктурата и особено критичната инфраструктура е от решаващо значение за развитието на икономиките. Изследването на тези въздействия върху заобикалящата я среда при изграждането на инфраструктурата е от изключителна важност в настоящото динамично и турбулентно политическо и икономическо пространство и време. Прогнозирането на процесите и прилагането на адекватни мерки за преодоляване на негативните ефекти на съоръженията върху устойчивостта биха позволили да бъдат интегрирани превантивни, коригиращи и текущи поддръжки, които да осигурят поддържането на критичните инфраструктури в желани граници ще бъдат сред аспектите на обсъждане в панела.

## TAXES, TAX SECURITY AND ECONOMIC SUSTAINABILITY

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### ABSTRACT

For the first time in the literature, the concept of "tax security" is introduced as a part of financial/fiscal security and the possibilities for modeling tax policy and tax control are explored, in the context of national security and protection of the strategic interests of the state, for sustainable development of the economy and society as a whole. The research problem is extremely topical and in view of the fact that there is a lack of development and research in this direction. In the long term, the security of the state represents a set of security of the individual elements of its financial system, including and the fiscal (financial/tax) security of both the state and the debtors. Taxes and tax policy of both the state and the European Union are important for the social and financial security of citizens and businesses in general.

Tax certainty should be considered from two perspectives:

- First, as state security, directly affecting the receipts in the state budget (implementing its priorities in this area), respectively ensuring the rights and obligations of the revenue authorities in the National Revenue Agency;
- Second, as security for the obliged persons, in relation to their rights to be informed about their public obligations; that their rights in the proceedings be explained to them, including the right to defense in administrative, executive and judicial proceedings; to be warned of the consequences of non-compliance and to be provided with the possibility of electronic data exchange with the revenue authorities and public contractors to avoid legal sanctions.

**Research overview:** based on the use of a literature review and the different tax mechanisms to present the role of taxes in protecting financial security and the economic sustainability

**Purpose:** achieving effective functioning of tax mechanisms to protect financial security and sustainability of the economy

**Method:** system approach, modeling and comparative analysis

**Findings and novelty:** for the first time in the literature, derives the concept of "tax security" as part of financial/fiscal security

**Keywords:** taxes; politics; security; sustainability; economy

**JEL codes:** G10, F52, H56

# ALLOCATION OF RISK BETWEEN THE COMMERCIAL BANKS AND THE ENTERPRISES IN THE LENDING IN THE CONTEXT OF CRITICAL INFRASTRUCTURE

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## ABSTRACT

The critical infrastructure arose as a result of the economic crisis and this necessitates the use of bank loans under more favorable conditions, the purpose of which is to finance the activities of the enterprises with a limited amount of equity capital and a deteriorated financial condition. When granting short-term and long-term loans to finance the needs of the enterprises, the commercial banks require the provision of solid guarantees designed to reduce the risk of non-payment to a minimum. This limits the implementation of the plan for the investments of the enterprises and gives priority to financing with own funds, which are insufficient in the conditions of the crisis, to solve the following problems:

- regular payment of the installments on pre-contracted loans;
- ensuring the remuneration of capital owners - distribution of the dividends between the shareholders;
- maintaining the economic potential of the enterprise at a competitive level.

The purpose of the research in the report is to reveal the possibilities for improving the activity of the "Finance" sector of the critical infrastructure, for strengthening the activity of the enterprises and for conducting a correct state financial policy, which is a guarantee for overcoming the negative consequences of the crisis, scilicet to create good conditions for the use of loans for the realization of new investments by enterprises, regardless of whether they are in long-term or short-term assets.

The research methodology is based on theoretical, dialectical, sociological, comparative-legal and formal-logical analysis.

The report draws conclusions regarding the impact of the changes in the inflation and the interest rates on loans on the economic behavior of enterprises to reduce financial risk and improve bank lending in the conditions of an economic crisis.

**Keywords:** critical infrastructure; risk; enterprise; commercial bank; credit

**JEL codes:** G21; G23; M21; D21; E43

## WOODEN BUILDINGS IN BULGARIA

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### ABSTRACT

Historically, the use of wooden structures in residential, public or industrial buildings in Bulgaria is most often associated with low stores - up to two or three floors, as well as the construction of the entire supporting structure of the building or partial application in certain narrowly specialized parts such as floors, walls, roofs.

Many historic residential buildings, built from the end of the 18th to the end of the 19th century, have been preserved with all-wooden or mixed - wood-massive constructions, stone in the ground floors (partially in the upper ones as well) in combination with wooden elements in the upper one's floors when the height of the buildings is two or three floors, even four, with a large unevenness of the terrain in mountainous areas.

In public buildings, wooden structures are mainly used for the intermediate supporting elements – the floors and ceilings of the buildings to lighten the structure and overcome larger support distances and achieve the monumentality of the different types of spaces. In rarer cases, there are examples of three-story, all-wood constructions or those combined with stone and wooden supporting elements.

In industrial buildings, the use of different types of wooden structures is also widespread in cases of low total load on the structure, for example, in tobacco warehouses in Plovdiv, but most often for roofs and intermediate floor elements.

Historically, the use of wooden bearing structures in our country has been limited, due to the large annual temperature amplitude and the not very high density of local wood species, which would hardly provide the required longevity and general durability of the buildings.

Today, many of these challenges are more easily solved with the use of high technologies in the preparation of wooden structures, for example in glued timber or with additional treatment for preservation against pests and moisture.

**Research background:** Reconstruction of buildings and public spaces.

**Purpose:** Historical review of wooden structures and buildings after the beginning of the 19th century in Bulgaria and the possibilities for reconstruction and construction of new buildings.

**Methods:** Historical overview and modern construction models.

**Findings and novelty:** The construction of completely wooden buildings with a height of more than three stories is connected with the introduction of new technologies for wood processing in Bulgaria.

Evacuation regulations and fire protection requirements in Bulgaria are also a challenge.

Law and regulations of the European Union provide new opportunities and sharing of proven experience about the possibilities given by wooden load-bearing structure for multi-storey buildings.

**Keywords:** wooden buildings; wooden residential buildings; wooden industrial buildings; wooden public buildings

**JEL codes:** A11

# PROTECTION OF CRITICAL INFRASTRUCTURE IN EASTERN BULGARIA FROM AIR STRIKES

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## ABSTRACT

In the geographical area under consideration from the territory of Republic Bulgaria, stand out several objects, that are of particular importance. The opponent always conducts reconnaissance and knows what defense and countermeasures we have at our disposal. In the northern part of Black sea area there is Varna. There are in it: the management of Bulgarian Navy force, agency of Sea administration, High Naval school, port structures and office, Port Varna- East and Varna -West, Airport near Aksakovo, industrial plants near Devnia and others. In terms of the road network, one important object is easily seen bridge Asparuhov. It connects the biggest part of Varna city with some squares and village zones in the south and also it is the most direct connection by the Black sea between north and south Bulgaria. Unfortunately for us it is only one and elimination will lead to major complications in transport and subsequently in other areas. Trade turnover tourism will be affected, some branches of industry, as well as the normal course of life in Varna. In the southern part the object of importance are the following: Port Burgas, Airport near the neighbourhood Sarafovo, Neftohimicheski plant, management of Coastguard. Near Burgas are based the ships by Navy force and Border police service. In the two places the purpose of enemy will be communications. If the main connection is broken there are always backup methods, but in this case there will be difficulty. Trade, tourism, hospitality and transport will be affected. In the south many people rely on basically resort and fishing and will decrease finance. The infrastructure along the Black sea is comparatively good. There is no highway, which is connect two large Black sea cities. There are lakes along Varna and Burgas, which limit the possibilities for growth in all directions and emigration, if necessary.

**Purpose:** To show whether we have the strength and means to cope in a complicated situation and in the absence of time.

**Methods:** I cover in principle the capabilities of protecting the critical structure and dealing with an air strike in principle, abstracting from the current military-political situation. I am mainly looking at a few sites: the chemical plants in Devnia, the Petrochemical Combine in Burgas, the two ports and airports, buildings of primary importance, the road network.

**Findings and novelty:** I have graded the consequences of striking, everything is systematized and updated with the current state of technology and forces. There is no classified information in my report.

**Keywords:** critical infrastructure; strike; weapon; damage.

**JEL codes:** H56

**Thematic field V.**  
**RESOURCE EFFICIENCY AND ENVIRONMENTAL BENEFITS**

The objectives of the EU set out in the Treaty of Lisbon are related to defending and promoting its values and interests. They are achieved through actions leading to peace contribution, security and sustainable development. The Glasgow Declaration for a smooth and sustainable green transition highlights the need for solidarity, shared interests and approaches to fair management of resources and profits. The contribution to democratic governance, mutual respect between peoples, the path to more complete liberalization of trade, the protection of human rights, fair social market economy will be the focus of the discussions in this panel.

**Тематично направление V.**  
**ЕФЕКТИВНО ИЗПОЛЗВАНЕ НА РЕСУРСИТЕ И ПОЛЗИ ЗА ОКОЛНАТА СРЕДА**

Целите на ЕС, заложи в Договора от Лисабон са свързани с отстояване и популяризиране на неговите ценности и интереси. Те се постигат чрез действия, водещи до принос към мира, сигурността и устойчивото развитие. Декларацията от Глазгоу за плавно и устойчив зелен преход извежда необходимостта от солидарност, споделени интереси и подходи за справедливо управление на ресурсите и печалбите. Приносът към демократичното управление, взаимното уважение между народите, пътят към по-пълната либерализация на търговията, защитата на правата на човека, справедливата социална пазарна икономика ще са във фокуса на дискусиите в този панел.

## ACADEMIC INSTITUTION'S ROLE IN SUSTAINABLE DEVELOPMENT PROCESSES

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### ABSTRACT

Academic Institutions (AIs) are, by definition, all Higher Education Institutions (HEIs) and Research Performing Organizations (RPs) where knowledge is created to be spread over society to serve innumerable needs and purposes. It is obvious today that the sustainable development and welfare are based and highly dependent on knowledge. However, the fragmentation and divergence of sciences runs very deep. Research fields has been developing disproportionally, and overall lack of sufficient collaboration between the Science, Technologies, Engineering and Mathematics (STEM) and Social Sciences and Humanities SSH disciplines is clearly noticeable. In fact, development in SSH lag considerably behind the rapid advancement of STEM. It seems that SSH are yet incapable of providing comprehensive and in-depth explanations of the complex phenomena humans are involved in today. For, we, humans, live not only in a material but also in immaterial world – a true domain of ideas, ideals and ideologies, concepts and meanings, values and virtues, beliefs and biases, customs, traditions and entirely new patterns of behavior, as well as, many other unperceivable but immensely impactful immaterial forces. All these call for a holistic approach and stronger integration between wide range of actors in our present inconceivably complicated world. Furthermore, this integration needs to be multi-dimensional and involve much stronger interaction between knowledge (education and research), technology and society actors. Today's AIs are no longer laboratories for discoveries driven by curiosity and castles of wisdom but hubs of fundamental and applied knowledge. What distinguishes them from all other institutions is the unbreakable entirety of all sciences – STEM and SSH – are their three core functions – education, research and service to society. This means that they and the global intellectual system they belong to have essential and powerful functions in the current Sustainable Development Processes. These functions and their outcomes strongly affect society as a whole. Thus, it means that the AIs need to gradually become key players and should take on their intellectual leadership role in these processes.

**Research background:** The paper deals with critical questions raised by current policies and processes as a result of the rapid advance of STEM and the unequal development of SSH that call for active intervention and intellectual leadership by the academic institutions.

**Purpose:** To examine the overall development of science and identify misbalances and deficiencies that negatively impact the sustainable development processes, as well as, to propose conceptual models for integrating STEM and SSH disciplines for raising effectiveness and efficiency.

**Methods:** Conceptual research: critical observation and analysis of existing challenges related to implementing current sustainable development policies from the perspective of the integrating role played by the academic institutions and the education and science, as a whole.

**Findings and novelty:** Identification of critical deficiencies in developing, integrating and application of different kinds of research in sustainable development processes and proposing a holistic approach in which academic institutions could play crucial role for achieving better outcomes and impacts.

**Keywords:** STEM and SSH integration; higher education and research; knowledge and sustainable development; academic institution's role

**JEL codes:** A11; A14; B16

## THE GREEN ECONOMY – UPGRADING THE CONCEPT OF SUSTAINABLE DEVELOPMENT

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### ABSTRACT

The article examines the problems posed by changes in the components of the natural factor to social and economic development. They are the focus of researchers from different countries, governments and international organizations, especially after the middle of the 20<sup>th</sup> century. This is evidenced by the analyses and program documents developed by various organisations, which highlight the main aspects of intervention and regulations in the field of environmental protection with all its components. In this sense, the purpose of the development is to review the concept of sustainable development and the changes that have occurred in it in the direction of focusing attention on the environmentally friendly aspects of economic behavior on a global scale. The object of the research is the concept of sustainable development and the subject – its transformation towards establishing a “green” economy with a view to preventing the loss of biodiversity and ecosystem services.

**Keywords:** sustainable development; natural capital; ecosystem services; green economy

**JEL codes:** Q01, Q56, Q57

# SEEKING FOR THE RESILIENT GOVERNANCE: INTEGRATION OF THE ANTI-CORRUPTION ENVIRONMENT IN THE MUNICIPALITY'S HUMAN RESOURCES MANAGEMENT SYSTEM

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## ABSTRACT

**Research background:** Public sector institutions including municipalities must meet challenges and find ways, how to ensure the sustained performance in the context of many threats. Corruption as a complex destructive practice remains one of main problems for institutional growth and effectiveness in local self-government.

Resilient governance requires not only surviving of organizations and keeping performing, but identifying their potential risks and taking proactive steps to ensure that organizations thrive in the face of adversity. Creating anti-corruption environment (hereinafter – ACE) is taken as one of priorities of municipalities, which could lead to the better level of local democracy and society trust. Integration of the ACE in the municipality's human resources management (hereinafter – HRM) system is based on the set of measures, structures and processes, leading to the resilient governance.

**Purpose:** The aim of the research is to distinguish links between the elements of anti-corruption environment and human resources management in municipalities, providing an integrated model leading to the resilient governance.

**Methods:** Based on the case study strategy, the empirical research was conducted in Lithuanian municipality, using such research methods as a secondary data analysis of survey results and semi-structured interview.

**Findings and novelty:** The research provides not only theoretical implications, but some practical insights from Lithuanian local self-government, which may create preconditions for resilient governance practice.

The analysis of the ACE measures and HRM processes in Lithuanian municipal administration confirmed that ACE measures (ensuring the reliability of personnel, collecting information about the person, declaring interests, establishing anti-corruption standards of the behavior, setting the zero tolerance for corruption and creating organizational transparency) can be integrated into the following organizational processes of HRM - search, selection, hiring, adaptation and motivation. The integration of such processes would make the creation of ACE smoother and faster, while the municipal human resources would be used more rationally. When regulating the municipal administration's activity processes (rules, descriptions, regulations, etc.), where ACE measures are planned to be integrated, it is necessary to foresee such aspects as performance of specific activities, functions, division of responsibilities. The ACE, integrated to municipal HRM system, significantly contributes to some benefits: "shadowing" activities are not tolerated anymore, work becomes more transparent and timely publicized, systematic anti-corruption education of employees is carried out, thus avoiding practices of corruption.

**Keywords:** resilient governance; anti-corruption environment; human resources management system; municipal administration; Lithuania

**JEL codes:** D73; H11; O15

## NEUROMANAGEMENT - THE NEW APPROACH IN ORGANIZATION MANAGEMENT

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### ABSTRACT

Neuromanagement is a new field of management that has developed as a result of the application to human resource management of knowledge generated in the fields of cognitive neuroscience and psychology. The goal of neuromanagement is, through the study of brain activity during the course of mental processes at the moment when people are faced with an economic or managerial problem, to acquire knowledge that will help to develop and use the intellectual potential of all workers in the organization in order to achieve higher production efficiency of each worker and more effective management of the organization.

There are a number of differences between classical management and neuromanagement concerning: the orientation of management functions; the principles on which the management process is based; the means of influencing the personnel; the system of motivating the personnel.

According to forecasts, the automation of the work process as a result of the development of technology and neuroscience will lead to the elimination of more than half of today's jobs in just 1-2 decades, with the demand for workers with low levels of education and qualification falling sharply and intellectual capital becoming the most important production factor.

Given these new realities, a cluster of professional competencies was defined at the 2015 World Economic Forum in Davos that will be sought in organizations using the principles of neuromanagement: complex problem solving, critical thinking, creativity, people management, coordinating with others, judgment and decision-making, service orientation, negotiation, cognitive flexibility, and emotional intelligence.

All these irreversible processes of change are also placing new demands on schools and universities, both in terms of learning technologies and in terms of the formation of new skills and competences in future professionals that are vital for the business of the future.

**Keywords:** neuromanagement; neuroscience; neuroeconomics

**JEL codes:** D87

## AN OVERVIEW OF THE ACADEMIC PUBLISHERS AND EDITORS' ROLE IN PROMOTING THE SDGS

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### ABSTRACT

In recent years, more publishing-focused organizations and association worldwide have stated their support for the United Nations Sustainable Development Goals. One of the first systematic steps was introducing SDG Publishers Compact, which was launched by IPA (International Publishers Association) and UN Publications Team in 2020. In a 2022 report by HESI, a top ten action list was presented, including tips for authors, publishers, and editors to assist in promoting SDGs in their work (WHEC2022, 2022). The initiative was also endorsed by EASE (European Association of Science Editors), and further efforts and research were produced, highlighting the necessity to expand the reach of the SAGER guidelines.

Here the topic of sustainable development highlights the role of academic publishers and editors in an endeavor to frame some of the best practices and policies in publishing processes and how they could contribute adequately by committing to the SDGs. The idea to accelerate access to knowledge and information is further expanded through the initiative of open science and the promotion of global knowledge. The latter requires to “reform academic publishing and strengthen the science-policy-society interface” (Sawahel 2023); however, it is somehow difficult in our overall context as the academic publishers are decentralized, and the flow of information regarding new policies and good practices is left to the singular publishing house and their editorial bodies.

**Research background:** The research tendencies in this field aim at a cohesive approach in order to provide an informed and ultimately systematical structure of actions related to SDGs and publishers.

**Purpose:** to make a theoretical overview of the actions' development level and how they are applied in different contexts, as well as their possible implementation in the academic editions of IBS. Another goal is to present a draft of updated versions of publication policies and documents that refer to the research output and the SDGs.

**Methods:** for this study, theoretical and empirical methods (both operations and actions) are used, such as analysis of relevant publications and research, synthesis of cultural patterns inherent to academic publishing in Bulgaria, and analysis of IBS editions and research topics that target the SDGs.

**Findings and novelty:** the paper's aims to highlight the possible implementation of SDG Publishers Compact Fellow's top ten action tips for academic publishers, editors and reviewers into the publishing documents of IBS by generating draft versions of policy and forms that recognize the specific SDGs in which a certain scientific edition accelerates.

**Keywords:** sustainable development; SDGs; publishing; open science; peer review

**JEL codes:** D80; O30; Q1

## AN EVALUATION FRAMEWORK FOR THE IMPACT OF DIGITALIZATION ON THE QUALITY OF GOVERNANCE: EVIDENCE FROM INDONESIA

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### ABSTRACT

Digitalization can have a positive or negative impact on governance. This study purpose is twofold.

The first purpose is to develop an evaluation framework for the Quality of Governance (QoG), whereas the second purpose is to evaluate the impact of government digitalization on the QoG for Indonesia.

This study develops an evaluation framework to determine the impact of digitalization on the QoG based on the literature. Data was collected to test the framework in practice by interviewing ten state apparatus and organizing small-group discussions. The manual process of the state government officers' selection in Indonesia is considered very poor and is vulnerable to corruption, collusion, and nepotism. The interviewees agreed that digitalization resulted in improved transparency and QoG.

Overall, information digitalization has a dual impact as it led to improving service quality, transparency, and government accountability, however, it did not result in less corruption, collusion, and nepotism. The practical contribution is aimed at helping the government to enhance QoG using digital technologies. Our findings suggest that digitalizing needs to be complemented by introducing checks and controls to reduce corruption, collusion, and nepotism. An evaluation framework offers important insights for the digitalization and helps to identify opportunities to improve the QoG further.

**Keywords:** information digitalization; quality of governance; control of corruption; Indonesia

# REGULATION OF SHORT-TIME RENTAL (STR) AS A DETERMINANT OF SUSTAINABLE MANAGEMENT BY BOOKING PLATFORMS - CASUS POLAND

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## ABSTRACT

**Research background:** Short Term Rental (STR) is becoming an increasingly important part of the tourism sector<sup>1</sup>, as confirmed e.g. by the interest in the area on the part of EU bodies. At present, STR accounts for nearly a quarter of the overall supply of tourist accommodation services in the European Union (EU)<sup>2</sup>. The increase in the share has been caused, in particular, by the emergence of online platforms, so-called Online Travel Agencies (OTA). One in four EU citizens uses STR via such a platform. The article will discuss the European Union's plans to change the regulation of short-term rental and a comparison to Polish regulations. The advantages and disadvantages of the currently functioning solutions and proposals for the future will be presented. It is also important that the relationship between the sharing economy<sup>3</sup> and short-term rental will be shown. Examples of the sharing economy and the changes that have taken place in this area will also be presented.

**Purpose:** This article starts with a description of the organisational and legal challenges, and moves on to present the challenges that impact the tourism market most strongly. The conclusions from these considerations are clear: the government administration sector of tourism is facing challenges which, after the COVID-19 pandemic, should be tackled in the continuation of the legislative changes in the sector due to its high social importance. The short term rental sector regulated in Poland can serve as an example for other countries in introducing target legislative solutions.

**Methods:** Dogmatic-exegetical method, empirical method with qualitative and quantitative research. The article presents my personal views and cannot be interpreted as the position of any body, entity or institution. The article presents the legal status as of 3 March, 2023.

**Findings and novelty:** The phenomenon is presented from a broader perspective than that of the tourist accommodation market, in order for the readers to understand the complexity of the matter. The description of the facts will then provide a basis for making recommendations as to whether the area should be covered by generally applicable laws. In particular, the concept of short term rental, and the possible inclusion within it of tourist accommodation that is made available/exchanged, will be presented.

**Keywords:** tourism; short term rental; regulation; management

**JEL codes:** K12, K22, H12

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<sup>1</sup> [https://data.europa.eu/euodp/pl/data/dataset/S2279\\_495\\_ENG](https://data.europa.eu/euodp/pl/data/dataset/S2279_495_ENG)

<sup>2</sup> <https://europa.eu/eurobarometer/surveys/detail/2279>

<sup>3</sup> [https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Short-stay\\_accommodation\\_offered\\_via\\_online\\_collaborative\\_economy\\_platforms](https://ec.europa.eu/eurostat/statistics-explained/index.php?title=Short-stay_accommodation_offered_via_online_collaborative_economy_platforms)

## STAFF TRAINING FOR EFFECTIVE IMPLEMENTATION OF THE LEAN CONCEPT IN THE ORGANIZATION

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### ABSTRACT

The effective implementation of business models to optimize costs and reduce losses and waste, to increase the competitiveness of the enterprise are the key to long-term success and sustainability in times of economic crisis.

One of the well-known concepts that has proven its capabilities in production, and now also in the service sector, is Lean. Applying it as a system for overall management of the organization allows eliminating losses, increasing the speed of processes, increasing the added value for customers and, on this basis, achieving market superiority.

In order to achieve the goals of such a large-scale and innovative project for the company, the team that will implement it is particularly important. It is necessary to mobilize efforts and involve people from all hierarchical levels of the organization. For each participant, their role, functions and responsibilities should be clearly defined to minimize problems due to uncertainty and lack of knowledge. In this line of thought, the continuing training and improvement of human resources for competent and effective incorporation of Lean principles in the organization is the guarantee of success.

The purpose of the study is to clarify and analyze the tasks, responsibilities and roles that personnel must perform for the effective implementation of the Lean concept in the organization.

On this basis, conclusions are formulated regarding the needs of continuing training and development of the human potential of the organization to build the necessary competencies. The forms and programs of personnel training are discussed, depending on the tasks performed by the employees in the Lean organization.

The study is financed by the project titled Attitude of Bulgarian Entrepreneurs and Managers towards Continuing Vocational Education and Training of Organization's Human Resources (ABECVET), contract KII-06-H65/12, Bulgarian National Science Fund (BNSF)

**Keywords:** lean concept; continuing training

**JEL codes:** M1; M53

## LIKING AND LIKING AS A COMPONENT OF MANIPULATION IN COMMUNICATION

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### ABSTRACT

*“Standing in the middle of the road is very dangerous;  
you're getting hit by traffic from both sides.”  
Margaret Thatcher*

New technologies bring with them new rules of communication. The essence of social networks is in mutual connection and exchange of information. Since Facebook implemented the "like" button on February 2, 2009, it has been used more than 1.3 trillion times and the number is increasing every day. Liking is an interactive communication that takes place with message, intention and action. By actively communicating with another person, by liking them, they are notified that their photo, status or post has been noticed. Liking shows the attitude of the liker towards the owner of the post. Facebook likes can be explained as the result of individuals' identification, empathy, and practicality with the content. People like other people's posts to confirm that they like something; to say something about themselves; to express virtual empathy or get something in return when the content liking audience is associated with a specific brand. It is important that liking the shared content is compelling and convinces the audience that there is a benefit (personal, intimate or business) from the author of the post.

Despite the fact that liking provides information about self-disclosure and people can recognize each other, liking can also be used as a component of manipulation. In business, for example, when a partner's page is liked, while at the same time behind-the-scenes activities take place, or when likes are generated to represent the "greatness" of the product.

The purpose of the author's research is to find out why other people's posts are liked in online platforms and why likes are also used for manipulation. The results of this research will certainly help to better understand human nature.

**Keywords:** social networks, liking, manipulation, backstage, etiquette.

**Thematic field VI.**  
**FLOOR OF YOUNG SCIENTISTS**

Doctoral students and young scientists will have the opportunity to present results of their research, exchange ideas and experience in the fields of sustainable development, circular economy, sustainable management of strategic infrastructures and others.

**Тематично направление VI.**  
**ТРИБУНА НА МЛАДИТЕ УЧЕНИ**

Докторанти и млади учени ще имат възможност да представят резултати от свои изследвания, да обменят идеи и опит в областите на устойчивото развитие, кръговата икономика, устойчивото управление на стратегически инфраструктури и други.

# THE HUMAN DEVELOPMENT INDEX AND THE ROLE OF EDUCATION IN ACHIEVING SUSTAINABILITY

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## ABSTRACT

The relevance of the topic of the report is indisputable. We live in difficult times - the ongoing Covid-19 pandemic, the war in Ukraine, natural disasters that have led to reversals in human development. In overcoming the consequences of these cataclysms, countries do differently in their development. Since 1989, the United Nations Development Program (UNDP) has been developed. With the help of this program, the level of this development is examined through a scale of very high (the category was added in the 2007 report), high, medium and low human development, according to which the Human Development Index (HDI, developed by the Pakistani economist Mahbub ul Haq in 1990) on three indicators: life expectancy, education and income level and ranks countries according to the results obtained in the three categories. It has been the main indicator used in international and regional comparisons since 1990. In the same year, the UNDP published the first report on the assessment of socio-economic progress worldwide, in which the concept of "human development" was defined as the process of expanding the possibilities of choice. The most important elements of the choice are health and longevity, the opportunity for education and a dignified way of life. This indicator emphasizes people's capabilities as criteria for a country's development, not just rankings of economic indicators. Its calculation allows to establish the place of the respective country according to the degree of development and education, to analyze changes in the economy and social sphere, as well as regional differences in living conditions. At that time, Bulgaria occupied the 24th place, and in the 2021 ranking - the "prestigious" 68th.

**Purpose of the post:** Apparently there are problems and they are the subject of study and purpose of our post. More fundamentally, we will dwell on the role of education, trying to answer an important question: why are we lagging behind in the age of technology?

**Methodology:** For the purposes of the research we will use a set of methods and approaches, such as analysis, synthesis, statistical data, literary sources.

**Findings and novelty:** We will focus on an analysis of the education system as a determinant of subsequent career development, which in turn has an impact on life expectancy and the opportunity to take care of health, to achieve sustainability.

**Keywords:** index; human development; education; incomes

**JEL код:** I15, I25, O15

# STUDY OF EMPLOYMENT IN THE HOTEL AND RESTAURANT SECTOR IN DEVIN MUNICIPALITY REGARDING THE IMPLEMENTATION OF POLICIES FOR ENVIRONMENT PROTECTION, CIRCULAR ECONOMY AND GREEN TRANSITION

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## ABSTRACT

**Research background:** Our modern times are full of challenges from every aspect. Environmental protection is one of them. The hotel and restaurant sector, in addition to a large number of employees, has the opportunity to influence a large number of visitors, thus multiplying the efforts of those employed in the sector. Environmental protection is a big challenge for everyone, but especially for managers. That is why knowing and analyzing the state of human resources, their needs and expectations are very important in our dynamic modern times, which makes this analysis extremely relevant.

**Purpose:** The report presents the results of a survey of the human resources employed in the hotel and restaurant sector in Devin Municipality, conducted in the period November-December 2022, regarding their knowledge, attitudes and motivation for implementing policies for environmental protection, circular economy and green transition. Human resources are the most important factor for the development of the modern organization and the implementation of sustainability policies depends on their motivational, moral and ethical value.

**Methods:** This report was prepared on the basis of an analysis of a survey carried out among the employees, occupied in the hotel-restaurant industry on the territory of the municipality of Devin. The purpose of this study is to investigate the knowledge, motivation and attitudes of human resources regarding the implementation of policies for environmental protection, circular economy and green transition. Almost all employed persons in the researched sector are local for the municipality. The survey, on the basis of which this report was prepared, was conducted in the period November-December 2022, and for greater reliability of the survey and removal of undesirable influences, the survey was anonymous, and employees were given the opportunity to fill in the survey cards independently. A weakness of this approach is that there are questions that may not be understood correctly. 115 completed questionnaires were received, and the data were processed using the software product SPSS, summarized and presented in graphic and tabular form. The survey contains 18 questions. They are divided into several groups: assessment of own knowledge; importance of factors; satisfaction with motivational factors; assessment of the specific situation regarding green policies; and sample identification questions. All questions are closed and simple (with one answer). Evaluation questions are based on a 5-point Likert scale. For the purposes of this analysis, data from the official statistics of the NSI (2008-2019) were also used.

**Findings and novelty:** The study sheds light on a topic that has been relatively under-researched to date – what is the attitude of the employees towards sustainability, environmental protection, circular economy and green transition policies. The analysis carried out confirms the general conclusion that the employees in our country have significant knowledge, but more efforts and application of training and explanatory campaigns are definitely needed. Visible from the survey, the organizations themselves are not sufficiently motivated to comply with these policies. It is also important for the state to play its role, because currently only sanctioning policies are applied, but the encouraging ones are still not at a very high level. The Recovery and Development Plan also identifies many areas through which to promote green policies. The people, employed in the hotel and restaurant sector, should be also seen as a tool through which the rest of the visitors, the majority of whom are Bulgarian citizens, can be re-educated in order to implement these measures and policies. Respondents highly value their own knowledge and attach great importance to environmental protection, the circular economy and the green transition, but the lack of sufficient control reinforces the opinion that efforts are not targeted, but rely on the goodwill of individual employees.

**Keywords:** human resources; motivation; green transition; circular economy; environmental protection

**JEL codes:** A11; A14; Z32; Q56

# APPLICATION OF THE SOR MODEL OF CONSUMER BEHAVIOR TO MODEL EXPERIENTIAL MARKETING COMMUNICATIONS

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## ABSTRACT

**Research background:** Customer experience includes all of a customer's interactions with a company and its product, app, or website over time. In the present study, the types of consumer experience are reviewed. Based on the existing SOR model of consumer behavior, parallel models are drawn up at each stage of the customer journey to emphasize communication strategies aimed at customer experiences with the brand. In order to ensure a positive experience, it is necessary to know the customers and their needs. Creating complete customer profiles will help understand and measure customer behavior at every touchpoint and across multiple communication channels, with aim to achieve long-lasting and effective relationships between the client and the business organization.

**Purpose of the study:** To determine the main points in communications that will facilitate companies in configuring their strategies. The tool that practitioners and academics can use to check the creation of user experiences and to be able to diagnose the points of interest if the overall result of the experience is considered unsatisfactory.

**Methodology:** Various scientific and applied methods and tools are used for review and analysis, which provides a broad view of the existing research on the discussed topic.

- Theoretical methods - literature review – a very detailed review of the secondary sources of information from Bulgarian and foreign studies, examples of good practices, theories and studies on the subject worldwide has been conducted. The literature sources related to the subject provide a clear account of the existing approaches and strategies.

- Empirical methods - observation - systematic and purposeful perception of individual research objects, fixing behavior, properties and characteristics.

**Discovery and novelty for the scientific field:** A pyramid of communication messages is proposed, based on E. Maslow's pyramid of the hierarchy of needs. A relationship between responsive marketing and consumer experiences is presented. Emphasis is placed on the conceptualization at the points of contact and interrelationship with the customer.

**Keywords:** marketing; experiences; communications; SOR model

**JEL codes:** M31; M37; M39

## SUSTAINABLE FINANCE - RISKS AND REPORTING IN BANKING SECTOR

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### ABSTRACT

In relation to the transition towards a sustainable, carbon-neutral, circular economy it is necessary to provide envisaged financial resources from the public funds as well as increase in private sector investments. Financial intermediation, in particular bank intermediation, plays a crucial role, while the transition leads to new risks which should be defined and appropriately managed in order to minimize threats to financial stability. Regarding sustainable financing the European Commission adopted a set of actions, summarised in a published plan and strategy. The action plan aims at reorienting capital flows towards a sustainable development, mainstreaming sustainability in risk management, fostering transparency and long-term orientation. In this context, the EC's efforts are focused on ten interrelated areas, with the building blocks of taxonomy, disclosure, investment instruments, incl. the benchmarks. The taxonomy regulation introduces a list of environmentally sustainable activities, which are the starting point for categorising activities of the banks' borrowers, and hence the reporting, assessment and management of the climate change transition risk, as a part of the broader concept for environmental, social and governance (ESG) risks. According to the EU Regulation the disclosure of environmental, social and governance risks and the CRR 3/CRD 6 draft package, the environmental risk includes physical and transition risk. Physical risk is described as a risk of losses arising from any negative financial impact on the institution stemming from the current or prospective physical effects of environmental factors on the institution's counterparties or invested assets. While the transition risk is steaming from the transition to an environmentally sustainable economy on the institution's counterparties or invested assets. The banks should have in place the proper governance and risk management structure and process in order to identify, measure, mitigate and report the risk. Furthermore they should also consider Pillar 2 capital add-ons in their internal capital assessment process. Banks and supervisory authorities are facing the challenges of measuring ESG risks and their mitigation tools across the three pillars of the prudential framework.

**Research background:** Risk management in banks.

**Purpose:** to analyse the incorporation of environmental risks into the banks risk management processes in the light of the EBA report, NGSF and ECB guides.

**Methods:** Descriptive analysis.

**Findings and novelty:** The state of play of measuring reporting of environmental risks.

**Keywords:** sustainable; environmental risk; transition risk; physical risk

**JEL codes:** G21; G32

## BASIC ELEMENTS OF COMMUNICATIONS IN PROJECT MANAGEMENT

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### ABSTRACT

Project communications management is a series of processes required to plan, generate, collect, distribute, store, retrieve, manage, control, monitor and ultimately dispose of project information in a timely and appropriate manner. Communication is considered one of the most important skills a project manager should possess. Project managers spend almost all the time during the project communicating. Communication management is the process of overseeing information transfer in all directions (up, down, horizontal or diagonal), which can be formal or informal. The implementation of the project depends directly on the project manager and his competence in communication management. Researchers claim that "effective communication creates a bridge between the different stakeholders involved in the project, bridging different cultural and organizational environments, different levels of expertise, and different perspectives and interests in the project's implementation or outcome". Effective project communications implies that the right information is transformed to the right addressee, appearing most cost-effectively at the right time. These prerequisites are imperative for the success of the project. Effective project communications mean the execution (transmission, reception, decoding, understanding) of the necessary information. On the other hand, project communication is understood as the exchange of information with the aim of building coherence between project stakeholders. The term "project communication" refers to all aspects of communication in a project: both external and internal communication, written, oral and interpersonal, planned and unregulated.

**Keywords:** management; project; communication

# IMPACT OF THE CIRCULAR ECONOMY ON THE BLACK SEA BASIN

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## ABSTRACT

In recent years, there has been an increasing push towards the introduction of circular economy models, which would work in opposition to the traditional linear model "extraction-production-consumption-disposal".

As part of the Black Sea Basin, Bulgaria has unique coastal and marine resources that offer opportunities for sustainable growth of the industries that depend on them. Although a large part of the economy along the Bulgarian coast continues to rely on traditional sectors such as beach tourism, fishing, maritime transport and mining, it should be borne in mind that the application of circular economy models has enormous potential. However, there is an increasingly fragmented management of coastal and marine natural resources, due to a lack of consistency in sectoral policies and market development at the regional and national level, which should be overcome through a comprehensive approach based on a comprehensive development vision.

The contribution of the Bulgarian blue economy to the national economy, including in terms of employment, is significant by EU standards. Several blue sectors, including coastal and maritime tourism, fisheries and aquaculture, shipping, ports, shipbuilding and ship repair, and oil and gas exploitation, generated around €995 million in gross value added (GVA) in 2018. This is around 2 % of the national GDP of all economic sectors and represents 3.4% of all jobs, which places Bulgaria above the average levels for the EU and above those of Italy or France. Given Bulgaria's relatively smaller coastal and maritime space, these results highlight the strategic importance of its maritime economy. Coastal tourism alone generates 80% of all jobs in the blue economy and contributes 69% to the GVA of the blue economy in 2018. Favorable conditions for wellness and spa tourism along the coast represent the potential to create additional jobs. The country's fisheries sector, which includes commercial fishing, aquaculture and fish processing, contributes 85 million euros to the economy, or 1.7% of the national GDP. The sector also employs almost 10,000 people and generates 9% of jobs in the blue economy. Given the increasing consumption of seafood worldwide, this sector has great economic potential (World Bank: 2020).

The economic potential of the Bulgarian coastal and marine ecosystem is at risk from human and climatic pressure. Urbanization, pollution, the impact of climate change, shoreline erosion and cliff retreat – all these natural and man-made impacts are putting serious pressure on the coast. Concentrated urbanisation, together with increased industrial development, including in terms of ports and maritime infrastructure, is straining the coastal environment, threatening habitats and the very values that attract the interest of visitors and investors.

Sustainability is possible with large-scale and effective implementation. The basis of sustainability is to take steps that take into account the economic, social and environmental consequences of decisions and actions. In this context, sustainable energy consumption is one of the main issues at the center of sustainability discussions. Water is also a vital resource, which we must learn to use sustainably.

When we look at limited resources and increasing consumption, we understand that sustainable consumption is a necessity rather than a choice. The current functioning of the global economy falls far short of the goal of sustainable living. This requires us to move from a linear economy, which is the system built on the use of fossil fuels and current consumption habits, to a circular economy.

**Keywords:** sustainable development; Black sea; circular economy; marine ecosystem

**JEL codes:** O31, O33, O35, Q01, R11

# **SUSTAINABILITY OF THE CIRCULAR ECONOMY THROUGH INNOVATION. CYCLICITY AS A DESIGN OF THE FUTURE IN TOURISM**

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## **ABSTRACT**

The concept of the circular economy goes beyond simple recycling, associating itself with the maxim that the circular economy is an economy of the reform, that waste is a resource through which we enable innovation to occur. Innovation, on the other hand, is a daily routine for business but with the thought of a future built on a reasonable economic development system. By valuing the circular tourism product, the plan for sustainable consumption can be further developed and we could design the product to the future requirements of the circular economy model. Cyclicity, on the other hand, does not close the innovative flow, but expands its sphere of action on more economic entities that strive for the longevity of their product - part of the current and future economic organism of the systemic sustainability plan. The purpose of this research is to outline mechanisms by which seemingly unnecessary waste is successfully transformed into a resource for innovation in tourism. The first part of the paper defines the understanding of a sustainable circular economic model in Bulgaria in its relation to innovative business practices in tourism. The best practices are derived through value creation in tourism business models. The second part sketches the need for the best practices through the introduction of the circular economic model in Bulgaria and analyzes the risks of introducing digitalization to Bulgarian tourism. Based on the research among representatives of the tourism sector in Bulgaria, it has come to a view that there is a shortage of good examples and studies in support of the promotion of the circular economic model among the tourism enterprises in Bulgaria. Any contribution in this area will lead to the improvement of knowledge and benefits from the introduction of the circular economy models in tourism.

**Keywords:** circular economy; cyclicity; circular economy concept; innovation; tourism

**JEL:** Q57, Z32, Z38

## THE CIRCULAR ECONOMY THROUGH THE EYES OF THE CRITICS

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### ABSTRACT

The current literature is dominated by reports and studies that mainly focus on the benefits and effectiveness of implementing the Circular economy (CE). Few authors and publications examine the topic from a critical perspective, stressing on disadvantages, and potential problems in the model. The presence of scientifically negative positions inevitably necessitates the need to collect, systematize and thoroughly explore them. The report aims to make a general analysis of some of the existing criticisms regarding the CE model by using secondary data sources. The initial review revealed that the main challenges and disagreements centered mainly on the comprehensiveness and complexity of the subject matter; the need for a correct and realistic risk assessment; the absence or ambiguity regarding the strategic directions of development; the incompleteness and still insufficient clear and specific legislation and standardization; as well as to and prioritizing global issues. Despite all the challenges facing the practical application of the model, the circular economy offers prospects, in the context of environmental and economic benefits, that make it the logical choice for transition. In order to identify and improve the weaknesses of the model, is extremely important for the critical analysis to be constructive and justified. This approach of analysis aims to contribute to the maximum extent to the overall improvement of the model during its implementation.

**Purpose:** The main purpose of the study is to make a general analysis of some of the existing criticisms regarding the CE model in order to strengthen the model's implication.

**Methods:** For the purpose of the study, secondary sources of information are used: study the literature of established authors, researchers, and analysts. The structure of the report follows a logical sequence, and a deductive approach is used to reflect the issues.

**Findings and novelty:** The critical approach analysis highlights the following issues: the model's comprehensiveness and complexity; the risk assessment; the lack of strategic guidance and standardization as a key shortcoming; prioritizing global issues.

Despite all the challenges facing the practical application of the model, the circular economy offers prospects, in the context of environmental and economic benefits, that make it the logical choice for transition. By analyzing the weaker links, we can understand how to effectively implement CE in modern business practices.

**Keywords:** circular economy; sustainable development; circular business models

**JEL codes:** Q56; Q01

# IMPLEMENTING THE CONCEPTS OF THE CIRCULAR ECONOMY IN THE AGRICULTURAL SECTOR

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## ABSTRACT

The agricultural sector is essential for feeding the world's population, but persistent hunger and malnutrition affect over 800 million people. Agriculture faces challenges such as negative impacts on natural resources and the environment, competition for resources due to urban expansion, climate change, and new threats from diseases and invasive species. Sustainable agriculture is economically viable, socially equitable, and environmentally sustainable, meeting the needs of current and future generations. It requires a global governance system that promotes food security, revises agricultural policies, and supports rural economic development. The three pillars of sustainability in agriculture are agri-environmental, socio-territorial, and economic, and actions taken in one area can positively impact the others. Sustainable agriculture practices aim to promote ecological balance, such as transitioning to nitrogen-fixing plants, natural pest control, crop rotation, and efficient irrigation. Additionally, promoting social equity is essential through empowering smallholder farmers and improving their access to markets, credit, and technology. Economic sustainability can be ensured through fair trade, reducing food waste, and improving supply chain management.

Sustainable agriculture practices can lead to numerous benefits, including improved soil health, reduced greenhouse gas emissions, increased biodiversity, and improved human health. It can also create employment opportunities, reduce poverty, and improve livelihoods for rural communities. To achieve sustainable agriculture, it is crucial to involve all stakeholders, including farmers, policymakers, scientists, civil society organizations, and consumers. It requires a shift from conventional agriculture practices to more environmentally friendly and socially equitable practices. Governments, international organizations, and private sector actors have a crucial role in supporting sustainable agriculture practices through policies, research, and investments.

In conclusion, sustainable agriculture is crucial for feeding the world's growing population while ensuring the long-term viability of natural resources and ecosystems. It requires a holistic approach that addresses environmental, social, and economic sustainability. By adopting sustainable agriculture practices, we can create a more resilient and equitable food system that benefits all stakeholders.

**Keywords:** sustainable agriculture; green revolution; European Green Deal; circular economy

**JEL codes:** Q01; Q13; Q56

## **BUSINESS MODELS AND CIRCULAR ECONOMY – OPPORTUNITIES AND CHALLENGES**

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### **ABSTRACT**

“Circular Economy” is focused on products and materials being used over and over, in a continuous loop, rather than discarded. In a circular economy, products are reused. Products that cannot be reused are recycled by chemical or mechanical processes, or through biological processes such as composting. Circular packaging solutions incorporate the principles of the circular economy and integrate seamlessly into sustainability efforts. The concept of a circular economy is built in opposition to the traditional linear model where raw materials are used, things are created from them, they are consumed and the leftovers are thrown away. This model relies on large quantities of cheap and accessible materials and energy sources.

The purpose of the research in the report is to reveal better understand the relationship between a circular economy (the bigger picture) and circular business models (the smaller picture), it's helpful to understand how businesses form a value chain. No singular business is the circular economy. That is to say, the circular economy is not one single vertically-integrated business.

The research methodology is based on theoretical, dialectical, sociological, comparative-legal and formal-logical analysis.

The report draws conclusions regarding the benefits of moving towards a circular economy: to protect the environment, reduce dependence on raw materials, create jobs, and save consumers money.

**Keywords:** circular economy; product; process; technology

**JEL codes:** L2; L23

## FINANCIAL STATEMENT OF CIRCLE ECONOMICS

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### ABSTRACT

Circle economics refers to an economic model that emphasizes the circular flow of goods, services, and resources in an economy. In this model, the focus is on reducing waste and promoting sustainability by keeping resources in use for as long as possible and then recovering and regenerating materials at the end of their life cycle.

Some examples:

1. Upcycling: Turning waste materials into new products with higher value.
2. Remanufacturing: Restoring used products to their original condition, extending their lifespan and reducing the need for new production.
3. Product as a Service: Selling a service instead of a product, where customers pay for the use of the product instead of owning it.
4. Closed-loop supply chains: Creating a closed-loop system where products are collected, repaired, and reused or recycled.
5. Zero-waste manufacturing: Designing products and production processes to minimize waste and optimize resource use.
6. Sharing economy: Sharing resources to reduce waste and increase resource efficiency.
7. Industrial symbiosis: Creating networks of companies that exchange waste, water, and energy to minimize waste and optimize resource use.

**Research background:** A comprehensive search of Google databases was performed to identify relevant articles published in English on Financial statement of circle economics.

**Purpose:** The main objectives of this study were: to review the scientific literature and to study the financial expression of circle economics.

**Methods:** Selection and sorting the information.

**Findings and novelty:** 1. According to the Ellen MacArthur Foundation, transitioning to a circular economy could add \$4.5 trillion to the global economy by 2030.

2. A report by the European Union estimated that the circular economy could create up to 580,000 new jobs in the EU by 2030.

3. The World Economic Forum estimates that a circular economy approach could reduce global greenhouse gas emissions by 39% by 2050.

4. In 2020, the global market for recycled plastics was valued at \$37.5 billion, and it is expected to reach \$54.7 billion by 2026, according to a report by MarketsandMarkets.

5. A study by McKinsey & Company found that transitioning to a circular economy could reduce the amount of waste sent to landfills by up to 80%.

6. The World Business Council for Sustainable Development estimates that circular economy initiatives could save businesses up to \$4.5 trillion by 2030.

**Keywords:** circle economics; sharing resources; financial statement

## EFFECTIVE USE OF NATURAL RESOURCES IN THE INTEGRATED MANAGEMENT OF THE SPA AND MEDICAL HOTEL'S PRODUCT

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### ABSTRACT

The main aim in tourism management is to provide opportunities for achieving optimal results of the development of the hotel organizations and good results from business activities. The emerging climate changes and their consequences provoke the development of effective management solutions and prevention against negative environmental effects in the tourism sector. The object of the study is the SPA and Medical hotel's product. The aim of the study is to prove the necessary introduction of quality standards for offered SPA and Medical products in tourism in the context of Blue Growth and Green Economy. The general tasks that follow from the goal of the study are directly aimed at clarifying the nature of the integrated management in the hotel industry, estimating the environmental parameters in the bigger resorts of the Bulgarian Black Sea coast and the application of eco-friendly technologies in the tourism sector and the SPA and Medical hotel's product. The study includes conducting laboratory tests of salty mineral water and the natural resource "Healing mud" from the source Pomorie salt lake, as well as the natural resource "Black Sea lye" from the Salt factory – Bourgas. In the last part of the study, the need and the information for introducing an environmental audit system in the tourism sector will be assessed by performing two types of questionnaire survey among business representatives and customers. Managers describe the strengths and weaknesses of this type of centres in hotel complexes and the importance of introducing eco standards. In the second type of questionnaire, consumers evaluate the quality of the SPA and Medical hotel's product and the efficient use of natural resources. There is a growing interest and importance of SPA tourism for the population, in the quality of Wellness and Medical hotel's products provided. The motivation of the tourists looking for destinations for their holidays or convalescent stays to places with a direct connection between man and nature, is increased. People are gradually realizing the benefits of natural resources on their healthy and satisfied lifestyles. As a result of the imbalance between available natural resources and their consumption, businesses appreciate the need for effective management solutions to address climate changes and prevention against environmental risk. A specialised approach and the implementation of integrated management are therefore required to ensure continued engagement and sustainable development of the tourism sector.

**Research background:** Effective use of natural resources in tourism

**Purpose:** to prove the necessary introduction of quality standards for offered SPA and Medical products in tourism in the context of Blue Growth and Green Economy

**Methods:** Laboratory tests, questionnaire survey, descriptive analysis

**Findings and novelty:** The state of play of eco-friendly SPA and Medical hotel's products and environmental risk

**Keywords:** SPA and Medical hotel's product; integrated management; natural resources; sustainable

**JEL codes:** A11

## PROSPECTS FOR MODERNIZATION AND INNOVATION IN THE ERA OF THE CIRCULAR ECONOMY

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### ABSTRACT

The challenges facing society on a global scale are part of a process embedded in the circular economy. The main focus on the life cycle of products and its multiplication is related to innovation not only in business but also in institutional development. The transition to a sustainable model is inextricably linked to the innovation and capabilities that EU countries can develop to move to the next stage in the global economic scale. The effective functioning of any national economy and state government is related to the updating of practices, and the development of industrialization to the level expected by society. The successful economic spectrum works to develop a circular economy..

Economic development and modernization of products and services are rapidly depleting the available resources of our planet, and this is not the result of futuristic predictions, but a simple logical process consisting of and based on the so-called linear model. Unfortunately, there are no inexhaustible raw materials on earth known to science to date, sufficient to continue feeding this straight and one-way mode of production. In a positive aspect, the circular economy interrupts and directs the world and business, together with the institutional power in an innovative cycle, giving the opportunity to upgrade through a system of creativity the quality industrial concept and reduce the harm on the world in which we live.

It depends on the training, personal and professional qualities of the management to what extent this scientific mission will give an entrepreneurial result, for the benefit of society, consumers in particular. Institutional support for the transition to this phase is a fact, and the desire among customers to be part of the whole "green industry" process is growing. Driven by the mission for a better industrial world, we should not forget that the cycle of recycling minimizes to a great extent the volume of discarded waste, and the materials that make up the final product that we have purchased today can be used after processing for a new life - on another product, tomorrow.

**Research background:** The future development of the processes related to the circular economy has already been established with the first steps of industrialization. Historically, it starts with a linear model and leads to the depletion of the limited natural resources needed for the production cycle. The modernization and innovation discussed in the report is a natural phase that conditions the entry of the new model, along with the management challenges to preserve and develop our society.

**Purpose:** The purpose of this report is to examine the effects of the processes that have already started years ago, related to the implementation of the basics of the circular economy. The nature of the topic necessitates the use of various analyzes and historical examples related to industrialization and management challenges. The example of the institutional support from the European Union provides evidence that the processing of used products and their recycling, the correct organization of the production process in a model with non-linear development is an essential factor that is important for our society and our future. The next horizons of action are in front of large corporations and small and medium-sized enterprises that can implement innovations in their work processes.

**Methods:** Data from scientific analyzes were used and studies were made in specialized literature, regarding the topic of the report. Information was collected from persons occupying management positions in Bulgarian enterprises in order to form the author's position regarding the positive role of the circular economy on the European industrial process.

**Findings and novelty:** The circular economy is a process that is irreversibly entering the modern industrial world. Despite the series of crises, the formation of an alternative to the linear model is the right way not only to preserve the natural resources of our planet, but also for the technological development of companies, as their motivator. The management will continue to play a leading position as a human factor determining the visionary policy for the implementation of this process, which, as the report on the topic under consideration shows, will be accompanied by a number of innovative practices.

**Keywords:** industrialization; circular economy; business horizons; innovations; management models

**JEL codes:** O31; L23; Q53