

**Opinion**  
**of a member of the Scientific Jury**  
**for obtaining the educational and scientific degree „Doctor“**  
**under the program „Finance, money circulation, credit and insurance“ (Finance)**  
**in D. A. Tsenov Academy of economics - Svishtov**

**Prepared the opinion:** Assoc. Prof. Dr. Ivaylo Mihaylov Mihaylov, Burgas State University „Prof. Dr. Assen Zlatarov“, habilitated in the scientific specialty 05.02.05 „Finance, money circulation, credit and insurance“.

**Grounds for presenting the opinion:** participation in the composition of the scientific jury for the defense of the dissertation according to Order № 214/10 March 2026 of the Rector of D. A. Tsenov Academy of Economics - Svishtov.

**Author of the dissertation:** PhD student Nikolay Vasilev Todorov (d010222264), part-time form of study in the doctoral program „Finance, money circulation, credit and insurance“ (Finance) at the Department of Finance and Credit at the D. A. Tsenov Academy of Economics - Svishtov.

**Topic of the dissertation:** „Financial aspects of the transition to a circular economy“.

**Scientific advisor:** Assoc. Prof. Dr. Angel Angelov (2021-2022), Finance and credit department, D. A. Tsenov Academy of Economics – Svishtov; Prof. Dr. Andrey Zahariev (2022-2024), Finance and credit department, D. A. Tsenov Academy of Economics – Svishtov; Prof. Dr. Stefan Simeonov (2025-2026), Finance and credit department, D. A. Tsenov Academy of Economics – Svishtov;

### **I. General presentation of the dissertation**

The dissertation „*Financial Aspects of the Transition to a Circular Economy*“ has a clearly formulated object, subject, goals and objectives. It advocates the thesis that "the application of the principles of the circular economy at the municipal level is not only feasible, but also an expedient approach to achieving a balanced, resource-efficient and low-carbon economy, with distinct environmental and social benefits".

The doctoral dissertation follows the established academic structure, consisting of an introduction, three chapters, conclusion, bibliography and appendices. The main presentation covers 383 pages, supported by 31 figures and 40 tables, which illustrate key aspects of the work. The literature used includes 169 sources with a predominant share of foreign-language literature. It can be confidently stated that in his work, doctoral student Nikolay Todorov demonstrates an analytical approach in synthesizing fundamental scientific theories and theses of leading authors. The text demonstrates a high degree of academic integrity in analyzing the specific aspects of the circular economy in the context of finance, law, and ecology.

### **II. Assessment of the form and content of the dissertation**

The relevance of the topic under consideration is determined by the intersectoral global, European and national challenges arising from the scarcity of natural resources, climate fluctuations and the escalating volume of waste generated. These factors impose the imperative need

to restructure conventional linear models of production and consumption. In the context of worsening environmental limits and socio-economic disparities, the circular economy is being established as a fundamental paradigm for sustainable development, incorporated into the strategic framework and policies of the EU.

A critical aspect of the study is the focus on the practical applicability of circular principles, the effective implementation of which requires synergy between technological innovations and a comprehensive transformation of management, regulatory and financial mechanisms. In this institutional architecture, local government (municipalities) plays the role of a key mediator between macroeconomic objectives and their real impact on the quality of life.

For Bulgarian municipalities, the deficit of institutional capacity and limited financial resources, combined with the problems of municipal waste management and the green system, actualize the need for innovative, economically expedient approaches. This determines the study of the circular economy as a model for sustainable development of the modern Bulgarian city not only as timely, but also as a strategically significant scientific and scientific-applied undertaking.

The chosen topic is in full accordance with the conceptual and applied imperatives of modern economic science. The study has a pronounced interdisciplinary character, as it requires a detailed analysis of the intersections between economics, politics, finance and ecology, considered in the context of their complex interaction within the framework of European policies.

The first chapter is entitled „Theoretical statements, regulatory framework and current state of the circular economy“. An analysis is made of the emergence, evolution and substantive development of the concept of a circular economy, considered in the context of the economy of efficiency, sustainable development and greening of economic systems. A place is devoted to the legislative framework related to the imposition and promotion of the implementation of the principles of the circular economy. An analysis is made of the degree of introduction and applicability of the circular economy in the legal framework at the local level.

The second chapter is dedicated to new models based on the principles of the circular economy. The Japanese model is brought to the fore, including the regulatory decisions for imposing the circular economy model, with the emphasis placed on Japan's fiscal policy regarding the treatment of industrial waste and actions to reduce it. This part of the dissertation examines the social and information aspects of the circular economy within Society 5.0, including the influence of circular models and blockchain technologies, as well as guidelines for the development of social impacts. Circular urban agriculture is also analyzed through its principles, strategies, practical application in Bulgaria and the opportunities for joint transformation with cities.

In the third chapter, doctoral student Nikolay Todorov conducts an empirical study and applied verification of circular models at the municipal level (mainly in the region of Troyan Municipality). For the purposes of the study, a survey was conducted on the attitudes, opinions and views of the local public on environmental problems in Troyan Municipality.

Each chapter ends with conclusions, and the conclusion of the dissertation summarizes the main points of the research. Three appendices are presented to the dissertation work in a total volume of five pages.

In methodological terms, the work is based on several basic scientific research methods, which are: systematic and comparative analysis, induction and deduction, cost-benefit analysis, scenario analysis, sensitivity analysis and the use of empirical and statistical methods.

The presented abstract objectively and systematically reflects the main parameters of the dissertation work and fully complies with the established academic standards for the formation of such types of scientific works. The structure of the work is developed in seven logically consecutive segments: general characteristics of the research, a synthesized presentation of the content by chapter, guidelines for subsequent scientific research, a reference to scientific and applied contributions, a list of publications on the topic, evidence of compliance with the minimum national requirements according to the of the Regulations for the implementation of the law on the development of the academic staff of the Republic of Bulgaria, a declaration of originality and reliability of the presented results.

### **III. Scientific and scientific-applied contributions of the dissertation**

In the course of his research, the author has formulated several contributions, systematized into two main groups: scientific and scientific-applied contributions.

*First*, the dissertation substantiates the author's concept of the circular economy as an integrated socio-economic model for sustainable urban development in Bulgaria, the effectiveness of which is determined by the systemic coordination and contextual adaptation of its regulatory, economic, institutional and social mechanisms.

*Second*, the concept of circular urban agriculture is theorized as an innovative integrative model for closing resource cycles, which synergistically connects biowaste management, the development of the green system, social inclusion and local production.

*Third*, an innovative methodology for calculating the „household waste“ fee has been developed, which integrates the principles of the circular economy and the "polluter pays" principle, defining it as a management and financial tool for stimulating resource efficiency and preventing waste generation.

*Fourth*, an empirical verification of the developed methodology was carried out in a specific municipal context by applying cost-benefit analysis, scenario analysis and sensitivity analysis to different discount rates.

*Fifth*, the analytical theses and practical models developed in the dissertation are institutionally and normatively validated through their use as an expert basis in the preparation, discussion and adoption of amendments and supplements to by-laws of the Municipality of Troyan in the field of: waste management; the protection and development of the green system, as well as in the management of municipal forest areas.

### **IV. Critical notes and questions on the dissertation**

Some gaps and weaknesses are noticeable in the doctoral student's work.

1. The volume of the dissertation significantly exceeds the generally accepted standards for a doctoral thesis, which makes it difficult to follow the main scientific line. The presence of excessively detailed descriptions and extended theoretical deviations blurs the focus. I categorically believe that this could be reduced without losing scientific value.

2. The work uses abbreviations and acronyms, and although some of them are quite popular, it would be appropriate to list the abbreviations at the beginning of the dissertation.

When reading the dissertation, the following question arose:

1. Which financial instruments (subsidies, tax incentives and "green" lending instruments) are most effective in promoting the transition to a circular economy and how do they minimize investment and technological risk for the private sector?

#### **V. Summary assessment of the dissertation and conclusion**

The presented dissertation on the topic „*Financial aspects of the transition to a circular economy*“ is the result of a thorough and systematic study of current economic processes. The author demonstrates excellent theoretical preparation and ability to apply modern tools for quantitative and qualitative analysis. The contribution to the development of an author's methodological approach for assessing financial mechanisms supporting sustainable development is particularly valuable. The scenario analysis used allows for the derivation of reliable forecasts that have a high degree of reliability and practical value for economic science.

The dissertation meets the requirements of the Act on the Development of Academic Staff in the Republic of Bulgaria and the Regulations for its Implementation. Given the scientific, theoretical and applied contributions of the work, I give my positive assessment. I propose to the esteemed scientific jury to award Nikolay Vassilev Todorov the educational and scientific degree "Doctor" in the field of higher education 3. Social, economic and legal sciences, professional field 3.8. Economics, scientific specialty "Finance, monetary circulation, credit and insurance".

Date: March 30, 2026

Prepared the opinion: .....

Assoc. Prof. Dr. Ivaylo Mihaylov