

## **REVIEW**

**by Prof. Dr. Nelly Andreeva Bencheva**

on dissertation labor for awarding the educational and scientific degree "**doctor**"

in: field of higher education 3. Social, economic and legal sciences  
professional field 3.7 *Administration and management, Doctoral program "Organization and Management Beyond the Material Sphere"*

**Author** : MAXIMUS KAIMOV

**Topic** : "**MANAGEMENT OF WASTE GENERATION AND TREATMENT PROCESSES**" IN THE BALTIC SEA REGION COUNTRIES "

**Scientific supervisor** : Prof. Dr. Mihail Mihaylov

### **1. Relevance of the topic and appropriateness of the set goals and objectives**

The dissertation examines the issues of management of waste treatment and generation processes in the countries of the Baltic Sea region. Within the EU, there is an adopted Directive /2008/98/, which is a legal framework for waste management and treatment. Its goal is to protect the environment, human health and the well-being of society through effective waste management, methods for their recovery and recycling. In this way, it helps to solve a major economic problem related to the shortage of resources and all environmental problems related to their extraction and utilization. Along with the increase in the volume of waste, their diversity,

complexity, toxicity and the associated costs for treatment, disposal and harmful effects are also increasing. With the development of technologies, the problem of waste generation and treatment is becoming more and more critical, which is why the need for in-depth scientific research is increasing, with a view to their proper management. In this context, I accept the relevance and significance of the researched dissertation topic as an integral part of the issue of developing the circular economy and achieving sustainable economic and environmental development.

I believe that the doctoral student has reasonably justified the relevance of the topic, and has correctly set the goal and specific tasks of the research.

## **2. Knowing the problem**

The dissertation is developed in a volume of 206 pages. The work is structured as follows: introduction, three chapters, conclusions after each chapter, conclusion, research results, recommendations, literature used and appendices. 268 bibliographical sources were used, only in English. The results of the empirical research are illustrated in the main text of the dissertation as follows; first chapter - 16 figures; second chapter 16 figures and 11 tables; third chapter 13 figures and 9 tables.

The goal on the research is to determine the degree of influence on macroeconomic indicators on generation and the treatment of the different types of waste in the region on the Baltic sea, within the concepts for sustainable development and circular economy.

For the achievement of this one goal, the following tasks are decided: analysis of concepts for sustainable development, and the pillars of sustainable development from the perspective of the region and regional development; model analysis of sustainable development as a complicated evolutionary system and sustainable regional development; determination of macroeconomic factors that influence generation and

waste and treatment them as essential component on sustainable development and circular economy economy ; analysis on the processes on generation and treatment on waste in countries from the region on Baltic sea and determination on the base on the internal division on the countries on two different groups ; use on statistical ( correlation ) analysis , to determine the significant ones macroeconomic factors capable of yes influence on the processes on generation and treatment on waste within on the specified groups countries from the region on Baltic sea ; h res statistical ( regression ) analysis yes is evaluate impact on the specified factors on generation on waste and treatment them in groups countries from the region on Baltic sea ; development on recommendations for improvement on the processes on treatment on waste as one from the most significant factors for the circular economy and sustainability development on the countries from the region on Baltic sea .

The dissertation contains specific results and empirical evidence that objectively reflect the real achievements of the conducted scientific research on the significance of managing waste generation and treatment processes in the countries of the Baltic Sea region.

The achieved results show that the doctoral student has good theoretical preparation, practical knowledge and skills to conduct scientific research,

### **3. Research methodology**

The conducted research is based on a developed methodology in accordance with the goal, tasks and hypotheses. The organization of the research process and the selected methodological tools are the result of using a wide information base. Data and analytical methods were used materials provided from statistically bureaus and departments ; reports prepared from bodies and international organizations participating in the described processes , as well as results obtained from multitude

researchers working in related fields scientific The limitations of the scientific research and the group of countries being studied are also very well argued .

The analysis of the obtained The results were obtained using quantitative and qualitative methods : comparative analysis , analysis and synthesis, system approach, factor analysis. Statistical methods for comparison and data processing ( correlation and regression analysis ) were used , based on time series data. The study period is 15 years (2009-2023), which allows to clearly outline the development trends of the studied waste management processes.

We can summarize that research technology is based on a developed methodology, including the use of modern quantitative and qualitative methods, which allow the analysis process to provide more reliable results and assessments regarding the effectiveness of waste management processes in the Baltic Sea region countries.

#### **4. Characteristics and evaluation of the dissertation work**

The **first chapter** of the dissertation provides a comprehensive overview of the theoretical frameworks that relate to the concepts of sustainability and sustainable development. The concept of sustainable regionality is introduced as one of the subsystems of sustainability. The circular economy is spatially considered as a factor for sustainable development.

The in-depth theoretical analysis has allowed the doctoral student to formulate clear conclusions. In summary, the in-depth theoretical analysis of waste management in the Baltic Sea region is a guarantee for the successful development of the second and third chapters of the dissertation.

In the second chapter in detail are described the processes for treatment on waste they , their advantages and disadvantages . The application has been analyzed on

different ways for treatment on waste in countries from the region on Baltic sea . This one analysis allows the separation on the countries from the region on different groups for the goals on regression analysis .

The third chapter justifies and argues for separation on the countries from the region on groups. Done analysis on macroeconomic factors influencing management on waste and treatment them in groups countries . This allows yes is do conclusions and yes is develop recommendations aimed at to improvement on the processes for treatment on waste , applied in the countries from the region .

As a summary, we can point out that the dissertation contains specific results and empirical evidence that objectively reflect the reliability of the results of the conducted scientific research.

## **5. Evaluation of dissertation publications**

Three articles in English have been published in connection with the dissertation. All three articles are independent. The general number of points is **30 points** , which meets the minimum national Requirements for obtaining the ONS “ Doctor ”

## **6. Personal participation of the doctoral student**

The doctoral student independently develops the goal, tasks, and methodology of the research. An analytical review of foreign scientific publications has been carried out. The collection and analysis of research materials, their statistical processing, and the formulation of conclusions and proposals are entirely the independent work of the doctoral student.

## **7. Abstract**

The abstract reflects the structure and content of the dissertation work. It includes the main chapters, results of the research, conclusions, and a conclusion.

## 9. Critical remarks and recommendations

I recommend that the doctoral student publish scientific articles in global databases and prestigious scientific impact journals factor in English .

### CONCLUSION

I believe that the presented dissertation, abstract and publications meet the requirements for acquiring the educational and scientific degree "doctor".

The presented dissertation is a completed scientific study, which is why I give it a **POSITIVE** grade.

I would like to propose to the Honorable Scientific Jury to award **MAXIMS KAIMOV** the educational and scientific degree "Doctor" in the Field of Higher Education 3. Social, Economic and Legal Sciences; professional field: 3.7 Administration and Management.

9.01. 2026

**Reviewer:** .....

( signature )

**Prof. Dr. Nelly Bencheva**