



## REVIEW

prepared by: **Prof. Dr. Stefan Ivanov**

on PhD thesis: **"Intelligent specialization of the regional economy (the case of Yambol district)"**

Author of the PhD thesis: **Petya Dobrinova Atanasova**

PhD thesis for acquiring the educational and scientific degree "Doctor" in scientific specialty "National economy (incl. regional economy and history of the national economy)", professional field 3.8. Economics, field of higher education 3. Social, economic and law sciences

### I. PROCEDURE

Petya Atanasova is a part-time doctoral student at the Department of Regional Development, Faculty of Economics, Trakia University. She is enrolled in part-time doctoral studies at the Department of Regional Development with Order № 479 of 01.03.2018 on the basis of Article 9 (1) in connection with Article 11 of PRASTRU and decision of the FS of SF (Protocol № 5 / 27.02. 2018). The scientific supervisor of the dissertation is Prof. Dr. Yuliana Ivanova Blagoeva-Yarkova.

The dissertation was dismissed, with the right to defense, by Order № 948 of 29.04.2021 on the basis of Art.

The decision to form a jury and move the thesis to defense was taken after its discussion at an extended meeting of the Department of Regional Development at the Faculty of Economics of the Thracian University on 13.05.2021.

The members of the Scientific Jury were appointed by order № 1123 of 20.05.2021 of the Rector of the Thracian University Assoc. Prof. Dr. Dobri Yarkov. The reviewers were selected at the first meeting of the scientific jury on May 26, 2014.

After getting acquainted with the course of the defense and with the documents and materials presented by the dissertation and the Trakia University, my conclusion is that there are no procedural violations.

### II. BRIEF BIOGRAPHICAL DATA

PhD student Petya Dobrinova Atanasova was born in 1977. In 2001 she graduated from the University of Economics, Varna, with a bachelor's degree in Banking, and in 2017 with a

Master's degree in Economic Analysis and Regional Projects development" at Trakia University. After a competition, she was enrolled for part-time doctoral studies at the Department of Regional Development in 2018.

The sphere of research interests of Petya Atanasova is formed around the scope of the dissertation: regional development and regional policy, analysis and assessment of the level of development, dynamics and structure of the regional economy, regional specialization and concentration and others.

Petya Atanasova has three publications, all in English. One of them is independent, and the other two - in co-authorship with his supervisor. Two of them are published in the Trakia Journal of Sciences, and the third in a collection of materials from an international scientific conference organized by the Institute for Economic Research at the Bulgarian Academy of Sciences. All publications deal with problems that are the subject of the dissertation.

Petya Atanasova has taken part in three scientific conferences, two of which are international, held in: Yambol (2018) and in Sofia, (III at BAS, 2019), the third is with international participation)

She speaks English and has computer skills and uses the main programs - Word, Excel, PowerPoint, as well as accounting products (Ajur, Omeks).

*In conclusion to section II of the review:* Petya Atanasova graduated with honors from higher education. As a doctoral student she has participated in three scientific conferences, has three publications, one of which is independent, all on the topic of the dissertation (all three are in English).

### III. DISSERTATION THESIS

The presented dissertation analyzes the level, dynamics and structure of the economy of Yambol district, determines the potential of the regional economy and the opportunities for future economic development of key thematic areas of intelligent specialization. This is a study that shows the way to restructure the regional economy from industries with low value added to specialization in innovative areas dominated by high-tech industries.

The structure of the dissertation is standard - introduction, three chapters and conclusion. Contains 222 pages. It includes 14 appendices, 27 tables, 45 figures and a list of 179 literature and information sources.

The introduction substantiates the significance of the topic, defines the object, subject, purpose, tasks, thesis and research methods. In my opinion, the author has managed to formulate well these basic postulates of each study.

In the first chapter: "Theoretical foundations of the specialization of the regional economy" is an example of logical sequence in the presentation of the theory, its relationship with the basic concepts, their definition and proposals for quantitative measurement.

Petya Atanasova briefly presents the concepts of spatial distribution of economic activities, focusing on localization theory and theories of international trade. From the latter is derived its

connection with the specialization of the regional economy - trade transactions are the result of the different specialization of individual countries / regions.

In the second heading of the first chapter the author presents her vision for the production specialization, makes relations between national and regional specialization, joins the opinion of quoted authors about the essence of the regional specialization. Depending on the goals and the way of measuring it, the regional specialization is divided into absolute and relative.

In the third heading: Regional smart specialization, the issue is considered in the context of the EU objectives in the programming period 2014-2020 - innovation and ICT. To achieve them, the regional specialization is presented in dynamics - as a process of transformation of the structure of the regional economy. Here we should note the definition of the author of the regional intelligent specialization, which I assess as very successful.

The first chapter concludes with a presentation of the methods for analysis and evaluation of the various aspects of regional specialization, which complete the presentation. The brief presentation of the main conclusions also contributes to this.

The second chapter "Intelligent specialization of Bulgaria" presents ISIS.

The first heading outlines the four thematic areas and the goals for smart specialization pursued in the strategy. Bulgaria's place in internationally recognized aggregate innovation scores is presented - a global innovation index and a summary innovation index. An attempt is made to present the individual factors determining the respective level of intelligent specialization

The second heading presents the recommendations of ISIS for regional specialization in thematic areas depending on their potential for development in individual regions. The submitted and approved projects in the different regions under two projects of OP "Innovation and Competitiveness" are commented

The results of the analysis of the Ministry of Economy on leading innovative activities in the individual regions are presented below. The author also makes her own calculations, in which she presents results from the regional specialization in low-, medium-, and high-tech productions, as well as sector analyzes of economic activities within these three groups.

Three conclusions can be drawn for this chapter. The first is that the presentation of foreign results is slightly exaggerated at the expense of own research, the second is that in own research, the sector dominates over regional analysis and third, the author, although timid, tries to formulate arguments for weaknesses in ISIS (in the main conclusions of the second chapter)

The third chapter "Specialization of the regional economy of Yambol district" analyzes the state and dynamics of economic development of Yambol district by main indicators - GDP, labor productivity, foreign investment and others for the period 2009-2018. The level of indicators for Yambol is refers to the average for the country and with the other districts of the south-eastern region.

The specialization of the regional economy of Yambol is also analyzed with the methods presented in the first chapter - Herfindahl index, localization coefficients, shift-share analysis and others. It is concluded that there is no specialization of the regional economy of Yambol. More in-depth analyzes show that there can be some concentration and stronger action of regional factors in the sectors of agriculture and forestry, processing industry and water supply.

Opportunities for intelligent specialization of the regional economy are sought through an analysis of the educational status of the population, enterprises, R&D expenditures, available innovative practices in the production activities of the thematic area "Industry for Healthy Living and Biotechnology".

At the end of the third chapter, the main conclusions are presented, outlining the strengths of the regional economy in the formulated priority areas in ISIS.

The conclusion summarizes the main points of the study - presents the main conclusions, but also formulates proposals for policies and measures at national and regional level to create conditions for intelligent specialization of the regional economy of Yambol

All above mentioned gives grounds to conclude that the dissertation student knows the research issues well and has the necessary theoretical knowledge and practical skills to carry out research. The main scientific achievements of the research are:

- The basic concepts are presented and an author's definition of the intelligent specialization of the regional economy is proposed;
- The author offers a system of indicators for measuring smart specialization;
- A critical review of the thematic areas and economic activities in ISIS has been made and proposals for changes have been formulated;
- The necessity of reducing the strategy for intelligent specialization from national to regional level is substantiated by proposing detailing of the thematic areas and disaggregation of the economic activities;
- An important conclusion is drawn that in this form the strategy contributes to the prosperity of the more developed regions at the expense of those specializing in traditional industries. For the observed period the strategy does not contribute to the transformation of Yambol district to intelligent specialization;
- The main productions in which Yambol district has a relative specialization are outlined, the problems are presented and measures for impact are outlined. It is recommended to integrate projects for intelligent specialization in the strategic planning documents at regional and municipal level.

In summary, we can say that Petya Atanasova has managed to logically build and present a broad study, which includes all elements of scientific and practical development: defining the object and subject of research, formulating goals, analysis and summary of theoretical formulations and approaches, development of tools for analysis and evaluation, its application with real data, drawing conclusions, outlining the problems and formulating proposals for intelligent specialization of the economy of Yambol district.

The **contribution moments** formulated in the author's abstract of the dissertation can be accepted as achievements at this stage of the author's scientific development.

Some critical remarks can be made about the qualities of the dissertation, the most important of which are:

The presentation of the data in absolute numbers does not serve the comparative analysis well (example table 3.1, fig.3.8, etc.);

It is not explained well enough (and maybe not on the right place), surprisingly good performance of north-west region in the regional distribution of the submitted and approved projects in 2.2;

In places, the author uses the former (and incorrect) definition of planning regions, instead of statistical regions (for example, p. 82, etc.);

The conclusion that Yambol district has an average level of socio-economic development (beginning of the conclusions in Chapter Three) is not proved in the previous analysis;

Does the author consider that each region is suitable for specialization, incl. intelligent one? Does the "specialization-diversification" scale always tilt in only one direction? Another area for future reflection is the balance between sectoral and regional analysis and policy proposals.

**The Abstract** is compiled correctly, contains the necessary components and reflects the content and highlights of the dissertation.

**In conclusion**, considering that the presented dissertation is dedicated to an extremely topical issue, that the author has managed to analyze, summarize and present in a logically consistent form a work of scientific and applied nature, which shows good theoretical training and knowledge of practice, that she demonstrates research skills and achieves results that are scientific contributions, all this gives me enough reason to convincingly recommend to the scientific jury to award Petya Dobrinova Atanasova the educational and scientific PhD degree of "National economy (incl. regional economy and history of the national economy)", professional field 3.8. Economics, field of higher education 3. Social, economic and law sciences.

June 25, 2021

Sofia

**Заличено!**

/Prof. Dr. Stefan Ivanov/