REVIEW

on a competition procedure for the academic position "PROFESSOR" at the Agricultural University – Plovdiv, in the area of higher education 3.0 Social, economic and legal sciences, professional field 3.8 Economics, scientific specialty "Economics and Management (Agriculture)", announced in the State Gazette, № 62 from 21.07.2023, with candidate Assoc. Prof. Dr. Dimo Atanasov Atanasov

by Prof. Dr. Tsvetana Alexandrova Stoyanova, appointed by Order № RD-16-899/25.09.2023 of the Rector of the Agricultural University – Plovdiv as a member of the scientific jury.

Reviewer: Prof. Dr. Tsvetana Alexandrova Stoyanova, UNWE – Sofia, area of higher education 3.0 Social, economic and legal sciences, professional field 3.7 Administration and management; 05.02.20 "Social Management", appointed as a member of the scientific jury by order № RD-16-899/25.09.2023 of the Rector of the Agricultural University – Plovdiv.

The review is prepared in accordance to the Law of the Development of Academic Staff in the Republic of Bulgaria and the Rules for its Implementation at the Agricultural University – Plovdiv.

1. General information on the candidate's career and thematic development

Assoc. Prof. Dr. Dimo Atanasov was born on March 16, 1975. He completed his higher education in 2000 at the Agricultural University – Plovdiv, majoring in Agricultural Economics. In 2013, he received the educational and scientific degree Doctor in Economics and Management, after defending a dissertation on: "Sustainable development of dairy farming Plovdiv region". In 2007, he became an assistant professor. In 2013, he became a chief assistant professor, and since 2015, he has been an associate professor in "Economics and Management" at the Department of Economics, Agricultural University – Plovdiv. Between March 2008 and March 2016, Dimo Atanasov was a faculty coordinator for the Erasmus+ Program. In June 2016, he was elected as Dean of the Faculty of Economics and in 2020, reelected for a second mandate. The relevant orders legally justify all the positions held—the total teaching experience of Assoc. Dr. Dimo Atanasov at the Agricultural University – Plovdiv, according to the official reference, № LS-70/ 07/26/2023, is 16 years and 6 months.

2. General description of the presented materials.

In the competition procedure for "PROFESSOR", Assoc. Prof. Dr. Dimo Atanasov participates with 25 scientific papers, which do not repeat the ones provided for acquiring the educational and scientific degree "doctor" and the academic position "associate professor". They are grouped as follows:

- Publications, referenced and indexed in SCOPUS, with SJR – 5;
- Publications, referenced and indexed in Web of Science – 14;
- Publications, referenced in other databases – 5;

- Monograph – 1.

The personal participation of Assoc. Prof. Dr. Dimo Atanasov, in the mentioned 25 scientific papers, is illustrated by the fact that he is an independent author of the monograph. In 10 publications, he is the first author. In 8, he is the second and in the remaining six, he is the third and subsequent author. This shows an excellent ability for teamwork and good relationships with his colleagues.

I have analyzed these 24 articles and the monograph to prepare the review. It is obvious that the points on all indicators exceed the minimum requirements and on some the excess is significant. This is evident from the following table:

Group of indicators	Indicator	Minimum requirement points	Score of assoc. prof. Dr. Dimo Atanasov
А	Dissertation	50	50
Б		-	-
В	Monograph	100	100
Г	Publications	200	222,76
Д	Citations	100	675
Е	Defended PhD students, participation and management of research projects	100	365
	Total points	**550**	**1412,76**

3. Main directions in the candidate's research work. Demonstrated skills or abilities for leading scientific research (project management, attracting external funding, etc.).

The main research directions of Assoc. Prof. Dr. Dimo Atanasov are in sustainability, circular bioeconomy, and modern concepts for smart and environmentally friendly economic growth, innovations and new technologies. They can be found in the three main stages of his research career.

The first stage is related to the development of a dissertation in the period 2007 – 2012. Scientific research and publications are linked to the topic of sustainable development of agriculture. Theoretical and methodological studies and adaption of existing concepts to the conditions and specifics of Bulgarian agriculture prevail.

In the second stage, the research of the theoretical and methodological concepts of sustainability and economic vitality is deepened and the focus shifts to their practical aspects. The understanding of the factors related to the viability of agriculture is further developed and methodologies for its research, analysis and evaluation are defined. The main contributions could be attributed to optimizing production structure, size of holdings, and their technical and economic efficiency. These studies and publications are the basis for the habilitation of Dimo Atanasov in 2015.

The third stage covers the period from 2016 to the present. The gained experience and knowledge about the dynamics in production, market and institutional environment directed the scientific interests to the contemporary challenges facing agriculture, rural areas and society. Assoc. Prof. Dr. Dimo Atanasov analyzes the

potential and opportunities of technology, management and institutional innovations, with the help of which agriculture, industry, and the whole economy can continue to develop and add value to entrepreneurs and society in a greener and more sustainable way.

I believe that the production of Assoc. Prof. Dr. Dimo Atanasov is highly scientific, presented in authoritative publications and accessible to the wide audience. Scientific research topics are directed to specific issues of science and practice and have modern theoretical, methodological and practical importance.

According to the presented report, Assoc. Prof. Dr. Dimo Atanasov has participation in 10 projects, including one national and two international with an educational focus and one national and four international projects with a scientific focus. In six of the projects, he is a coordinator or a manager. Participation in such projects is proof of the applicant's international recognition.

4. Assessment of the pedagogical competencies and activities of the candidate. Its role in the training of young scientists.

Assoc. Prof. Dr. Dimo Atanasov teaches bachelor's and master's students in Agricultural Economics, Sustainable Development, Eco-Economics, Agrarian Policy, Logistics, Economics of Precision Agriculture, Economics of Animal Husbandry, etc. All these disciplines are also taught in English to Erasmus students or other international students from universities outside Bulgaria.

During the period 2018 – 2023, Assoc. Prof. Dr. Dimo Atanasov has conducted 4652.9 teaching hours, equivalent to tutorial exercises. His scientific and teaching activity is complemented by the guidance of graduates, developing Bachelor, Master thesis and PhD students. To date, he has more than 40 successfully defended graduates and 8 PhD students. Three PhD students have successfully defended their doctoral theses, one has been dismissed, and four are active.

Associate Professor Dr. Dimo Atanasov has developed and accredited two new programs – one on bachelor's level – "Bioeconomy" and one on master's level – "Bioeconomy". Training of students in both has started in the academic 2022 – 2023. He also participated in developing and implementing in practice of another master's program, "E-Commerce", where the enrolment of students also started from the 2022 – 2023 academic year. He is a supervisor of two master's courses which are available and already have successfully graduated students: "Bioeconomy" and "European Agriculture and Rural Development" in English. He is also a member of the editorial board of the Bulgarian journal "Economics and Management of Agriculture" and the Polish journal "Problems of Agriculture".

5. Significance of the obtained results, proven by citations, publications in prestigious journals, awards, membership in international and national scientific bodies, etc.

From the presented reference, the citations of the scientific works of Assoc. Prof. Dr. Dimo Atanasov are 66, out of which 33 are referenced and indexed in world-

famous databases with scientific information in monographs and collective volumes and 30 in non-referred journals with scientific review. This proves that the candidate is an established scientist, recognizable not only in Bulgaria, and the large number of citations is a certificate of his authority among the academic community.

6. Significance of the contributions to science and practice. A motivated answer to the question to what extent the candidate has a clearly defined profile of research work.

The presented monographic study on "The role of innovation for the economic development of agriculture" is of the most significant importance for science and practice. It summarizes a large part of the scientific results of Assoc. Prof. Dr. Dimo Atanasov, between 2016 and 2023, examines the trends in the economic, ecological and social processes in society and in agriculture, as well as the challenges for their sustainable development, based on which innovative production, technological, management and institutional solutions are offered. The following scientific results can be highlighted in it:

In the first chapter, the theories and concepts of economic growth are studied. A critical review of its nature and features in agriculture has been made. The factors influencing the industry are analyzed, and their role in society is assessed in conditions of continuous increase in food and raw material needs and depleting natural resources. Innovations and new technologies are presented as an opportunity to improve the performance and efficiency of production systems. The potential opportunities of different types of technological, managerial and institutional innovations for the development of agriculture are evaluated and presented.

In the second chapter, the essence of sustainability is explored and defined. The main points of the UN Framework Convention on Climate Change, the Kyoto Protocol, the Paris Agreement, the European Strategy for Sustainable Development, and the European "Green Deal" are synthesized.

In the third chapter, the characteristics of agricultural production systems are studied. Based on that the need for innovations is justified to maintain their production capacity and reduce the harmful impact on the environment. An analysis of innovative technologies in precision agriculture - global navigation and satellite systems, variable rate of application, various sensors, robots, software, crop monitoring, traffic control etc. is made. Challenges in introducing innovations in agriculture are assessed. The potential benefits of new technologies are described.

In the fourth chapter, approaches and tools for evaluating the efficiency of innovations and new technologies are adapted and presented based on the existing theoretical and methodological concepts of economic growth and the analysis of internal and external dependencies of agricultural production systems. It shows how farmers or entrepreneurs can quickly analyze the benefits and costs of an innovation and make an informed decision whether or not to invest in it. The tools demonstrated are practical and allow easy adaptation for different purposes.

The scientific contributions in the remaining publications are:

Contributions aimed to clarify, enrich, and further develop the theoretical statements and concepts regarding agriculture's economic, ecological, social and technological conditions and the institutional frameworks for their development. A critical review of a large volume of literature sources is made. Based on that the internal and external factors influencing the development of agriculture and rural areas are defined. National and European policies and tools for influencing the industry are analyzed to define models for achieving smarter and more sustainable development.

The dependence of economic growth on innovation is analyzed, and the potential of new technologies to ensure more sustainable and intelligent social and economic development in accordance with ecological potential is presented. In part of the publications, the scientific research is influenced by the current trends in European policies and strategies to achieve a "greener" and "circular" bioeconomy. Another issue that has been explored is the volatility of agricultural production systems and the possibilities for risk reduction. From this perspective, contributions are made in the theoretical explanation of the various risks and the presentation of methodological tools for measuring their strength and probability of occurrence. Modern management approaches for the prevention and control of risks in agriculture are also proposed to achieve greater security and sustainability of production systems.

Methodological contributions are noticed in the attempts to adapt approaches and create tools for research, analysis and evaluation of the parameters in the work of agricultural holdings and the interpretation of the obtained results. The developed methodology for risk assessment in agriculture helps entrepreneurs assess the factors creating risks for their business to take proactive (preventive) or reactive actions to minimize the dangers and ensure sustainable development. Methodologies for analyzing and evaluating the technical and economic efficiency of various technologies in agriculture is developed. They are practically tested in various agricultural holdings. An innovative technological model that could be adapted for different cultures and conditions is also presented. In the direction of transformation of production systems towards circular bioeconomy, models have been also developed. This methodology applies to a wide range of agricultural production systems. Some of the essential principles of the circular bioeconomy are summarized, and opportunities for sustainable application of biomass are presented. An in-depth study of the ancient wheat varieties (Limetz and Spelt) is carried out. The benefits for consumers and the importance of their genetic characteristics are underlined. Different technologies of leaf fertilization with biological fertilizers are analyzed, and the possibilities for optimal production evaluated.

Practical contributions are noticeable in the perception and use of the created methodologies. Conventional and innovative policies for developing agriculture and rural areas are presented. The main focus is on the increase of productivity of resources and reduce the energy intensity of farms through investments in innovations and new technologies, protection of national producers and consumers, uniform development of regions and agriculture, through the efficient utilization of

European funds and shift to high added value production systems. Management models and the role of innovative approaches for creating and developing a working environment and high staff motivation are also practical contributions. Good practical examples and management approaches based on organizational innovation, improving working conditions, flexibility of work shifts and fair remuneration, as well as continuous training of the staff to work with modern technologies, machines and equipment, are presented.

The relationship and interaction between agriculture and forestry is established, and forests' ecological and socio-economic importance for the quality of life and sustainable development of society is analyzed. The negative effects of deforestation and air pollution from wood burning is also presented. A comparison between heating models based on different energy resources is made, and an efficiency assessment from the user's and society's perspectives is done.

The contributions made by the candidate have a significant theoretical, methodological, and applied effect on the science and the practice.

7. Critical notes and recommendations

I have no critical remarks about the candidate and his production. I would recommend that he continue his research and further widen the areas of interest according to social expectations and environmental improvements.

8. Personal impressions and opinion of the reviewer

I know Assoc. Prof. Dr. Dimo Atanasov from my participation in the accreditation procedure of professional field "Tourism" at the Agricultural University Plovdiv. We have had opportunities to exchange ideas with each other at various forums and participate in scientific conferences. My personal impressions of his research, teaching and public activities are entirely positive. He is an excellent researcher, a respected teacher and a person with active position in science and practice.

CONCLUSIONS

Based on analysis of the candidate's pedagogical, scientific and practical activities, I believe that Assoc. Prof. Dr. Dimo Atanasov Atanasov fully meets the requirements of the Law for Development of Academic Staff in the Republic of Bulgaria, The Regulation for the Application of the Law for Development of Academic Staff in the Republic of Bulgaria, the Regulations of the Agricultural University – Plovdiv for its application. He significantly exceeds the national requirements for the academic position "professor". There is also clearly expressed public, administrative and institutional activity. He also has transparent professional, administrative, institutional and public activities.

All this gives me a reason to evaluate his overall activities **POSITIVELY.**

I would like to propose to the esteemed Scientific Jury also to vote **POSITIVELY**, and the Faculty Council of the Faculty of Economics at the Agrarian University – Plovdiv to elect **Assoc. Prof. Dr. Dimo Atanasov Atanasov as**

"PROFESSOR" in the scientific speciality "Economics and Management (Agriculture)".

Date: 24.10.2023

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REVIEWER:

(Prof. Dr. Tsvetana Stoyanova)