SCIENTIFIC OPINION

Prepared by: **assoc. prof. Svetla Boneva, Ph.D, CGAP**
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Scientific specialty 05.02.10: "World Economy and International Economic Relations"
Professional field 3.8: "Economy"

Prepared on the ground of: participation as a member of the academic jury for the defense of the dissertation, pursuant to Order No. 874/19.12.2025 of the Director of the Institute of Economic Studies at the Bulgarian Academy of Sciences – Prof. Irena Zareva-Zafirova, PhD, for conducting the defense of a dissertation for the award of the educational and scientific degree "Doctor" in the scientific specialty "World Economy and International Economic Relations" within professional field 3.8 "Economics" of area 3 "Social, Economic and Legal Sciences," of a PhD candidate at the Institute of Economic Studies – BAS, supervised by Prof. Tatiana Houbenova, PhD, as well as the decision of the Academic Council of the Faculty of Economics at the Institute of Economic Studies – BAS, pursuant to Protocol No. 20/17.12.2025.

Author of the Ph.D thesis: **Simeon Stoilov Stoilov**

Title of the Ph.D thesis: **"THE INTERNATIONAL TRANSFER OF NEW TECHNOLOGIES AND ITS ROLE IN THE TRANSITION TOWARDS INNOVATIVE AND SUSTAINABLE DEVELOPMENT OF THE BULGARIAN ECONOMY"**

1. Information regarding the candidate and the presented materials in the procedure

PhD candidate Simeon Stoilov studied in the doctoral program in the scientific specialty "World Economy and International Economic Relations" at the Institute of Economic Studies – BAS during the period 2020–2025. He holds a qualification in finance, accounting, and audit from the Institute for Postgraduate Studies at the University of National and World Economy (2007–2008). Prior to that, he obtained a bachelor's and a

master's degree in "International Economic Relations" at the University of Economics – Varna (1992–1998). His bachelor's thesis was devoted to leasing as a form of international financing, while his master's thesis focused on the financial discipline of multinational companies. He completed his secondary education at the English Language High School in Ruse (1987–1992), specializing in English language and literature, and actively participated in UNESCO educational initiatives and workshops.

At present, Simeon Stoilov is a highly qualified manager and former diplomat with more than 30 years of international professional experience in strategic management, innovation, industrial development, international trade, and public diplomacy. His professional background includes leadership positions in the private sector, public administration, and international structures in Europe and the United States. As of January 2025, he is the Chief Executive Officer of Hoting Innovations AB (Sweden), a high-technology company developing the innovative SinterCell technology for sustainable solutions in packaging and in replacing plastics with cellulose fibers. Prior to that (2021–2025), he headed the Quality and Supply Management Department in the same company, with responsibilities for implementing industrial standards in high value-added production. In parallel, from 2017 to the present, Simeon Stoilov has been Managing Director of SILO Ltd. (Sofia) and SILO Global LLC (Chicago), companies promoting transatlantic cooperation in the fields of technology transfer, market positioning, and the development of strategic business partnerships in industrial and innovation sectors.

In the period 2011–2016, he held the position of Consul General of the Republic of Bulgaria in Chicago and actively supported economic diplomacy and relations with the business community. Before that, Simeon Stoilov held managerial positions in the corporate sector, Marketing Director at Eurohold Bulgaria, General Manager of Ita Leasing, and member of the Boards of BULVARIA Holding and Auto Italia. His early professional years were related to commercial negotiations and the management of sales teams. Overall, Simeon Stoilov's professional background is characterized by international managerial experience, expertise in innovation, and proven leadership skills in both public and private environments.

The materials provided to me for the preparation of an opinion on the dissertation include the following documents: the dissertation, the abstract, the list of publications related to the dissertation, a reference on the main contributions of the dissertation, the doctoral candidate's CV, and the full texts of the publications related to the dissertation topic.

The dissertation is structured into an introduction, a main body consisting of three chapters, and a bibliography. The total volume of the dissertation is 234 pages, including the introduction, three chapters, conclusion, bibliography, lists of abbreviations, tables and figures, and statistical sources. The work contains 15 tables, 3 graphs, and 2 figures. The bibliography includes 307 sources (books, articles, periodic and non-periodic statistical and other publications, reports, studies, and online sources), of which 54 are by Bulgarian authors, 98 institutional documents, 34 produced by analytical organizations and think tanks, and 122 by foreign authors. Additionally, 12 statistical sources were used. Five publications have been produced on the topic of the dissertation.

2. General characteristics of the doctoral thesis

The dissertation is built upon a well-chosen theoretical framework that combines classical, neoclassical, and contemporary interdisciplinary approaches to innovation, economic growth, and international technology transfer. The research is based on:

- Schumpeter's theory of innovation and "creative destruction," in which technological progress is viewed as an internal driver of economic transformation;
- Endogenous growth theories (Romer, Aghion & Howitt), which emphasize the role of knowledge, R&D, and human capital;
- Evolutionary economics (Nelson & Winter), which conceptualizes innovation as a process of learning, adaptation, and institutional evolution;
- The theory of absorptive capacity (Cohen & Levinthal), applied as a key concept for assessing the ability of the national economy to absorb and build upon external technologies;
- The systems approach and the theory of national innovation systems (Freeman, Lundvall, Nelson), as well as the Triple Helix model (science–business–government);
- Theories of global value chains, technological sovereignty, and techno-nationalism, which position international technology transfer within the context of contemporary geopolitical and economic transformations;
- The concepts of sustainable development, as embedded in the UN Sustainable Development Goals and EU policies (European Green Deal).

On this theoretical basis, the original concept of the multiplying ("ripple") effect of international innovation and technology transfer has been developed.

The research methodology employs a multidisciplinary, strategically oriented qualitative approach, aligned with the complex nature of international innovation and technology transfer. The main methods used include:

- Situational analysis for assessing the state of the innovation and technological environment in Bulgaria;
- Comparative analysis: benchmarking against EU countries and leading innovation economies (South Korea, Japan, the USA) to extract applicable best practices;
- Institutional and regulatory analysis examining policies, strategies, and the regulatory framework influencing international technology and innovation transfer (ITIT);
- Case studies and historical parallels, including industrial strategies and technology transfer models;
- Conceptual modelling, resulting in the development of the analytical Ripple Effect Model (REM) for assessing the economic, institutional, social, and environmental effects of ITIT;
- Synthesis and strategic planning, culminating in the preparation of a national roadmap for the strategic management of ITIT for the period 2025–2040.

The methodology does not include quantitative econometric modelling due to the lack of standardized and comparable indicators for measuring the full effect of ITIT;

instead, it is oriented toward the analysis of applied strategic solutions.

The dissertation has well-formulated aim, object, and subject, and the research tasks clearly correspond to the achievement of the main goal of the work and the validation of the research thesis. The literature used in the study is appropriately selected and covers numerous theoretical and applied scientific contributions by leading international authors. In this respect, the doctoral candidate's strong awareness of the issues addressed in the dissertation should be emphasized.

3. Evaluation of the research results and research contributions and the importance of the dissertation

The dissertation achieves interesting scientific and applied results, which can be summarized in the following areas:

An interpretation of international innovation and technology transfer is presented, viewing it as a manageable strategic process rather than an isolated economic act. An original Ripple Effect Model (REM) is introduced, which builds on traditional assessments by incorporating secondary, indirect, and long-term effects.

An in-depth analysis of Bulgaria's innovation ecosystem has been carried out, identifying key structural deficits: low R&D expenditure, weak institutional capacity, limited links between science and business, and insufficient managerial expertise in technology transfer.

Bulgaria is positioned as an "emerging innovator" in the EU, with clearly defined risks of remaining locked in low-productivity segments of global value chains in the absence of an active strategy for international innovation and technology transfer (IITT).

A national roadmap for IITT (2025–2040) has been developed, including a phased approach (preparation, piloting, scaling), sectoral priorities, and mechanisms for institutional coordination and monitoring.

Concrete policy recommendations are formulated, aimed at strengthening absorptive capacity, building effective public-private partnerships, and integrating Bulgaria into European and global innovation value chains.

The dissertation represents a comprehensive and original study of international innovation and technology transfer as a strategic instrument for sustainable economic development. Through the combination of theory, analytical framework, and applied solutions, the work has both scientific value and strong potential for practical application in public policy and strategic planning.

The results of the doctoral dissertation and the candidate's publications include scientific and applied contributions: analyses, assessments, empirical insights, and practical considerations related to the topic and contributions. They meet the requirements for awarding the educational and scientific degree "Doctor" (Ph.D.). The research results are clearly and precisely formulated and may be used by other researchers, experts, consultants, and analysts.

The main contributions formulated in the dissertation are eight in total, which I fully accept; however, I consider that they may be reformulated and presented in a more concise and focused manner:

1. A comprehensive theoretical-conceptual model has been developed as a systemic economic function that interprets technology transfer as a bidirectional process of adaptation and innovation upgrading, with institutional, technological, and human dimensions. The concept of the multiplying (ripple) effect of IITT is substantiated, revealing the expanding influence of transfer on economic complexity, the institutional environment, and sustainable development.

2. A comparative analysis of international and national models of IITT has been conducted, identifying key interdependencies between institutional coordination, human capital, innovation infrastructure, and transfer effectiveness. Structural constraints and untapped opportunities in the Bulgarian economy have been identified, related to institutional architecture, regional innovation ecosystems, and participation in European technological networks.

3. A conceptual framework for strategic management of IITT in Bulgaria has been developed, integrating the Ripple Effect Model (REM), institutional coordination, and a strategic implementation roadmap. A managerial toolkit is proposed for the strategic and operational management of IITT, including mechanisms for capacity building, selection, adaptation, and protection of technologies. A model is formulated for the transformation of Bulgaria into an active exporter of innovative solutions, with long-term impact on competitiveness and economic growth.

The dissertation is distinguished by the doctoral candidate's mastery of a contemporary system of knowledge not only in the field of theory, but also in relation to managerial practice. The research methodology fully corresponds to its objectives. The tasks set in the study have been successfully accomplished.

4. Evaluation of the publications

The doctoral candidate has presented four single-authored publications on the topic of the dissertation and one co-authored publication. These works constitute valuable contributions that reflect the thematic scope of the research and, in quantitative terms, satisfy the requirements for obtaining the educational and scientific degree "Doctor".

5. Evaluation on the minimal national requirements

The materials that have been presented fulfil the minimal national requirements for awarding the doctoral (Ph.D) degree. This is valid for the quality of the doctoral thesis (the full text of the dissertation), the annotation (abstract) of the dissertation and the list of the publications of the candidate and the indexations of the publications.

6. Critical remarks, recommendations and questions

No substantial critical remarks to the candidate and his research. I have one recommendation to the candidate – to translate in English (after the end of the procedure for the awarding of the academic degree "Doctor") and to publish in proper foreign editions his doctoral thesis. Thus the research will reach a broader audience and provide more citations

for the author and his affiliation.

7. Conclusion

The dissertation of SIMEON STOILOV entitled "THE INTERNATIONAL TRANSFER OF NEW TECHNOLOGIES AND ITS ROLE IN THE TRANSITION TOWARDS INNOVATIVE AND SUSTAINABLE DEVELOPMENT OF THE BULGARIAN ECONOMY" is an original and timely scientific study that meets the essential requirements for awarding the educational and scientific degree "Doctor." The author demonstrates good academic language and style, has analyzed a substantial body of scholarly literature, and has convincingly substantiated his positions, conclusions, and recommendations.

All of this gives me grounds to vote "FOR" the awarding of the educational and scientific degree "Doctor" to SIMEON STOILOV STOILOV.

03.02.2026

Sofia Signature: *С.Бонева*

(assoc. prof. Svetla Boneva, Ph.D)