

Criteria For Identifying Innovative Products: International Experience and Lessons for Vietnam

Nguyen Huu Xuyen

Vietnam Institute of Science and Technology Strategy, Ha Noi, Vietnam

Abstract: *This paper analyzes and proposes a framework of criteria for identifying innovative products based on a synthesis of theoretical foundations and international experience, while drawing policy implications for Vietnam. The study employs a literature review, comparative international analysis, and secondary data from organizations such as OECD, WIPO, and the World Bank. On this basis, the paper systematizes major research approaches to innovative products, including those grounded in novelty and the nature of innovation, quantitative measurement, value- and impact-based assessment, and the innovation ecosystem perspective. The findings reveal a converging trend toward a multidimensional approach to identifying innovative products, integrating technological, economic, commercialization, and socio-environmental criteria. Case analyses of South Korea, Singapore, and the European Union indicate that, although each model emphasizes different focal points, all seek to align evaluation criteria with the innovation cycle and policy frameworks. Based on these insights, the paper recommends that Vietnam develop an integrated criteria framework, combining quantitative and qualitative evaluation methods, strengthening the use of data, and linking criteria with market-based support mechanisms. The study contributes to refining the theoretical foundation and provides practical evidence for the development of a criteria system for identifying innovative products that is appropriate to the Vietnamese context.*

Keywords: *Innovation; criteria for identifying innovative products*

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I. Literature Review

To date, numerous domestic and international studies have addressed innovation and the criteria for identifying innovative products. These studies can be categorized into several perspectives or schools of thought, as follows:

First, approaches based on the concept and nature of innovative products. According to OECD (2018), innovation is defined as the introduction of a new or significantly improved product or process that differs substantially from previous solutions and has been implemented or commercialized. This approach emphasizes core elements, namely novelty, applicability, and the capacity to generate value. Building on this foundation, many studies have expanded the scope of innovative products beyond tangible goods to include services, processes, organizational models, and business models (Tidd & Bessant, 2009; Nguyen Huu Xuyen, 2021). Some studies adopt a similar perspective by considering innovative products as the integrated outcome of science, technology, and innovation activities, which may take the form of technological solutions, digital platforms, or new business models (Tran Ngoc Ca, 2020). Accordingly, two approaches to identifying innovative products can be distinguished: the “process-based” approach, which emphasizes the chain of activities from research to commercialization; and the “outcome-based” approach, which focuses on the final product introduced to the market. The current research trend is to regard innovative products as simultaneously satisfying two conditions: possessing elements of novelty or differentiation, and generating clear socio-economic value. This serves as an important foundation for developing criteria to evaluate innovative products.

Second, measuring innovation based on indicators and quantitative criteria. This approach has been applied by OECD and WIPO in reports on the Global Innovation Index (GII). Accordingly, innovative products are identified through specific measurable indicators such as the number of patents, the share of revenue derived from new products, the level of R&D investment, or the proportion of innovative products in a firm’s total output (OECD, 2018; WIPO, 2024), as well as indicators related to technology commercialization rates and the contribution of new products to revenue growth or labor productivity. These studies also classify levels of innovation according to degrees of novelty, such as new to the firm, new to the market, and new to the world (Nguyen Huu Xuyen, 2021). However, a key limitation of the quantitative approach is its inability to fully capture intangible values, particularly social impact, business model innovation, or social innovation. In practice, many products with high innovative value but without immediate revenue generation may be undervalued if assessed solely on financial indicators.

Third, measurement based on the value and impact of innovation. A product is considered innovative only if it generates clear added value in economic, social, or environmental terms. According to the World Bank (2020), innovative products should be evaluated based on their contribution to economic growth, job creation, and improvements in quality of life. Similarly, studies in Vietnam emphasize the role of innovative products in promoting digital transformation, green growth, sustainable development, and the linkage between innovation and sustainable development goals. Accordingly, innovative products are assessed not only in terms of economic efficiency but also in terms of their contributions to emission reduction, efficient resource use, or the resolution of social issues. This broadens the scope of innovative products to areas such as green technologies, smart agriculture, and social innovation. However, the greatest challenge of this approach lies in measuring impact, particularly long-term and intangible effects. Therefore, many studies propose the use of hybrid evaluation methods, combining quantitative data with expert assessment to fully capture product value.

Fourth, the innovation ecosystem approach. Another important line of research approaches innovative products from the perspective of the innovation ecosystem. According to innovation system theory, innovation is not the result of a single actor but rather the outcome of interactions among the state, enterprises, and research organizations (Freeman, 1987; Lundvall, 1992). Within this framework, innovative products are regarded as outputs of the entire ecosystem, influenced by factors such as institutions, policies, human resources, and collaboration networks. Both domestic and international studies highlight the central role of enterprises in the formation and commercialization of innovative products, while the state plays a facilitating and supportive role. The development of the “Triple Helix” and “Quadruple Helix” models has further expanded the understanding of innovation by incorporating the role of society and users in the innovation process. This leads to an expansion of the criteria used to evaluate innovative products, including market acceptance and the ability to diffuse within society. The advantage of the ecosystem approach lies in its ability to capture the complexity of innovation; however, its limitation is the difficulty in developing specific and easily applicable criteria for management purposes.

Fifth, in addition to the development of criteria, an important research direction focuses on methods for identifying innovative products. Current studies indicate the existence of three main groups of methods: (i) expert evaluation, which relies on panels of experts to assess the level of innovation of a product. This method is flexible and capable of capturing qualitative factors; however, it is limited by its dependence on the subjective judgments of evaluators; (ii) self-declaration with verification, whereby enterprises proactively declare their products and regulatory authorities conduct ex-post verification. This approach helps reduce administrative costs and enhance proactiveness, but it requires effective monitoring mechanisms; (iii) criteria-based scoring methods, which combine multiple criteria with different weights to produce quantitative results. This method is widely used in modern evaluation systems due to its transparency and comparability. In addition, emerging measurement models such as Technology Readiness Level (TRL), Commercial Readiness Level (CRL), and Social Readiness Level (SRL) are increasingly applied to assess the development stage of products within the innovation cycle. Studies in Vietnam have also begun to adopt these models in order to develop evaluation methods that are appropriate to the national context.

Thus, the existing schools of research reveal several key trends: (i) a shift from input-based approaches toward output- and impact-based approaches to innovation; (ii) an increasing emphasis on combining quantitative and qualitative criteria to comprehensively reflect the value of innovative products; (iii) an expansion of the scope of innovation to social and environmental domains, aligned with sustainable development; and (iv) a growing recognition of the role of ecosystems and enterprises in the process of identifying innovative products. However, several research gaps remain. Notably, there is no fully integrated model that combines both criteria and methods for identifying innovative products. In addition, existing studies lack a criteria framework that is suitable for the context of developing economies, where innovation ecosystems are not yet fully developed and data availability remains limited. Furthermore, the linkage between evaluation criteria and innovation support policies has not been clearly articulated in many studies. For Vietnam, the most significant gap lies in the absence of a comprehensive criteria system that ensures both international compatibility and relevance to domestic practical conditions.

II. Research Methodology

This paper is conducted based on a qualitative research approach combined with policy analysis and international comparison. The central focus of the study is to develop and systematize a framework of criteria for identifying innovative products through the synthesis of theoretical perspectives and practical experiences from selected representative countries. This approach is grounded in the perspective of innovation systems theory, which views innovation as the result of interactions among actors within the ecosystem (Freeman, 1987; Lundvall, 1992). Therefore, the identification of innovative products should be analyzed not only at the firm level but also within the broader institutional and national policy context. In addition, the study adopts an empirical orientation, relying on scientific evidence and practical data to propose policy recommendations

(OECD, 2018). This is consistent with the objective of the paper, which is not only to provide theoretical analysis but also to derive practical lessons for Vietnam.

Document analysis method. The primary method of the study is literature review and document analysis. The research collects, synthesizes, and analyzes secondary data from multiple sources, including: international theoretical frameworks and guidelines such as the Oslo Manual (OECD, 2018), the Frascati Manual, and reports from the World Bank and WIPO; academic studies published in international journals related to innovation measurement and the evaluation of innovative products; policy reports and national innovation programs from selected countries; and domestic documents, reports, and studies related to science, technology, and innovation. This method enables the systematization of different schools of thought, while also identifying trends and research gaps in the field of identifying innovative products. According to Creswell (2014), document analysis is an appropriate method for establishing theoretical foundations and analytical frameworks for policy and comparative international research.

Comparative international analysis method. To clarify international experience, the study employs a case comparison approach, focusing on three representative entities with innovation evaluation systems developed at different levels. The selection of cases is based on the following criteria: representation of different innovation ecosystem models (advanced, transitional, and policy-driven); the existence of relatively comprehensive criteria and methods for identifying innovative products; and the availability of public data and relevant research materials. On this basis, South Korea, Singapore, and the European Union are selected for in-depth analysis in terms of: criteria frameworks for identifying innovative products; implementation mechanisms and their linkage with policy systems; and the degree of integration with data systems and innovation management. The comparative method allows for the identification of similarities and differences among models, thereby drawing lessons applicable to Vietnam.

Secondary data analysis method. The study utilizes secondary data from official and reliable sources to support analysis and argumentation. These sources include: the Global Innovation Index reports (WIPO, 2024); statistical data on science, technology, and innovation from OECD and the World Bank; national reports and databases from the selected case studies; and domestic data on science and technology enterprises and innovation activities. According to Johnston (2017), the use of secondary data enhances research efficiency, particularly in comparative international studies, while reducing the cost and time required for data collection.

Although the study employs a combination of methods, certain limitations remain. These include: the potential constraints of secondary data in terms of availability and timeliness; the inability of document analysis and case comparison methods to fully capture micro-level realities, particularly at the firm level; and the limited number of selected cases, which may not fully represent all innovation models globally. However, within the scope of a scientific paper aimed at synthesis and policy orientation, this approach ensures scientific rigor, logical coherence, and the necessary level of generalization.

III. Research Findings

Criteria for Identifying Innovative Products in South Korea

South Korea is regarded as one of the countries that has developed a comprehensive and highly institutionalized innovation evaluation system, closely aligned with its national development strategy based on science, technology, and innovation. In this context, the identification and recognition of innovative products are not merely technical matters but also serve as important policy instruments for resource allocation, enterprise support, and the promotion of technology commercialization. South Korea's approach to defining criteria for identifying innovative products is integrative in nature, combining both qualitative and quantitative criteria, while being closely linked to the innovation cycle. According to studies on Korea's innovation system, the evaluation of innovative products is typically based on three main pillars: (i) the level of technological innovation; (ii) economic value and market impact; and (iii) commercialization readiness (Kim & Nelson, 2000; OECD, 2018).

First, the criterion of novelty and the degree of technological innovation is considered the core foundation. South Korea adopts a classification of innovation levels based on the categories of "new to the firm," "new to the market," and "new to the world," similar to the OECD framework (OECD, 2018). However, a distinctive feature lies in the quantification of this criterion through specific indicators such as the number of patents, the degree of technological improvement, and the extent of differentiation from existing products. Government evaluation programs in South Korea typically require firms to demonstrate novelty through intellectual property documentation or R&D outcomes.

Second, the criterion of economic value and market impact plays a crucial role in distinguishing between potential innovation and innovation with tangible value. Commonly used indicators include revenue from new products, export capacity, market share, and the contribution to firm growth. According to Lee and Lim (2001), South Korea's innovation policy consistently emphasizes the linkage between technology and the market, whereby innovative products must demonstrate a clear capacity to generate economic value.

Third, the criterion of commercialization capability and technological readiness is assessed through tools such as Technology Readiness Level (TRL) and Commercial Readiness Level (CRL). This represents a distinctive feature of South Korea's approach, as innovative products are evaluated not only at a specific point in time but also according to their position within the innovation cycle. According to Mankins (2009), the use of TRL helps determine the maturity level of technology, while CRL reflects the ability to access markets and scale up.

In addition, some evaluation programs in South Korea incorporate criteria related to organizational capacity and the innovation ecosystem, including firms' R&D capabilities, the extent of collaboration with research institutions, and the ability to mobilize resources. This reflects an ecosystem-based approach, in which innovative products are considered the result of interactions among multiple actors. Overall, South Korea's criteria system is characterized by its integrative nature, high measurability, and strong linkage with policy frameworks. The evaluation of innovative products serves not only classification purposes but also as a basis for implementing support instruments such as financial incentives, taxation policies, and public investment.

Based on the above analysis, several key features of South Korea's approach to identifying innovative products can be summarized: (i) a strong integration of qualitative and quantitative criteria. While indicators such as revenue, patents, and TRL are quantitative, expert panels are still involved in assessing difficult-to-measure aspects such as creativity and market potential, thereby balancing objectivity and flexibility; (ii) a close linkage between criteria and the innovation cycle. The use of measurement scales such as TRL and CRL enables the evaluation of products across different stages of development, from research to commercialization, facilitating the design of policy support tailored to each stage; (iii) a strong connection with policy systems and national data infrastructure. South Korea has developed comprehensive databases on R&D, intellectual property, and innovative enterprises, thereby supporting evaluation processes and policy decision-making, enhancing transparency and system effectiveness; (iv) a clear orientation toward market and commercialization. Unlike models that focus primarily on research, South Korea places strong emphasis on the commercialization potential and market value of innovative products (Kim & Nelson, 2000). This is a key factor in transforming research outcomes into economic growth.

Criteria for Identifying Innovative Products in Singapore

Singapore is regarded as one of the leading countries in developing a data-driven innovation evaluation system that is deeply integrated with its knowledge-based economic development policies. Unlike the technology-oriented approach of South Korea, Singapore adopts a flexible model for evaluating innovative products, placing enterprises at the center and closely linking evaluation with the market and the innovation ecosystem. Singapore's criteria framework is developed based on a combination of international guidelines (particularly from OECD and WIPO) and national innovation management tools, notably programs implemented by Enterprise Singapore and the innovation evaluation system under the Research, Innovation and Enterprise (RIE) framework. In this context, innovative products are identified not only based on technological factors but also on their ability to create value, their degree of differentiation, and their potential for market expansion (OECD, 2018; WIPO, 2024).

A distinctive feature of Singapore's approach is the use of data analytics tools and digital platforms to support evaluation. Models such as Innovation Mapping (I-Map) and integrated data systems enable the collection and analysis of information on patents, scientific publications, revenue, and R&D collaboration to assess the level of innovation of products (World Bank, 2020). This provides the foundation for a criteria system that is both flexible and measurable.

Based on relevant programs and studies, Singapore's criteria system can be broadly categorized into four main groups, aligned with international trends but adapted to the characteristics of an open and market-oriented economy.

First, novelty and innovativeness. The criterion of novelty in Singapore is approached flexibly, extending beyond technology to include innovation in business models and services. A product is considered innovative if it demonstrates significant differentiation from existing solutions in the market or introduces new ways of addressing customer needs (OECD, 2018). Unlike patent-centric approaches, Singapore allows novelty to be assessed through multiple data sources, including market feedback, functional differentiation, and business model innovation. This is particularly suitable for startups and innovation-driven enterprises in the digital sector.

Second, economic value and market potential. Singapore places strong emphasis on the economic value and market development potential of innovative products. Common indicators include: revenue or projected revenue from new products; scalability; export potential and integration into global value chains; and the ability to attract investment, particularly venture capital. According to the World Bank (2020), Singapore is among the countries that strongly apply a "market-driven innovation" approach, in which market value serves as the central criterion for determining the level of innovation. This ensures that recognized innovative products can directly contribute to economic growth.

Third, commercialization and scalability. One of the most prominent criteria in Singapore's system is the ability to commercialize and scale. This criterion is assessed through: Technology Readiness Level (TRL); Commercial Readiness Level (CRL); the capacity for large-scale deployment; and business models and market strategies. The integration of TRL and CRL enables the evaluation of products not only from a technological perspective but also in terms of market readiness, consistent with the innovation cycle approach (Mankins, 2009). In Singapore, a product is considered innovative only when it can effectively transition from idea to market.

Fourth, innovation capability and ecosystem integration. Singapore also emphasizes the assessment of the innovation capacity of the organization developing the product. This includes: R&D capacity and science and technology human resources; the level of collaboration with research institutes and universities; participation in the innovation ecosystem; and the use of data and digital technologies in innovation. This approach reflects the ecosystem perspective, in which innovative products are the result of interactions among multiple actors (Etzkowitz & Leydesdorff, 2000). Singapore places particular emphasis on building platforms that connect enterprises, research institutions, and the state to promote open innovation.

From the above analysis, several key features of Singapore's approach can be identified: (i) a market-centered orientation. Unlike countries that focus on R&D inputs, Singapore prioritizes the evaluation of products based on their ability to create value and expand markets, thereby enhancing the effectiveness of technology transfer and commercialization; (ii) strong application of data and digital technologies in evaluation. The use of data platforms and analytical tools enhances objectivity and reduces reliance on subjective judgment; (iii) flexibility in evaluation criteria. Singapore does not apply rigid criteria but allows adjustments based on sectors and types of enterprises, particularly startups; (iv) close linkage between criteria and the innovation ecosystem. Evaluation extends beyond the product itself to include organizational capacity and the degree of integration within the ecosystem.

Criteria for Identifying Innovative Products in the European Union

The European Union (EU) is one of the leading regions in standardizing frameworks for measuring and evaluating innovation, with relatively comprehensive policy systems and assessment tools such as the European Innovation Scoreboard (EIS), Horizon Europe, and guidelines from Eurostat and OECD. In this context, the identification of innovative products is approached in a systematic and multidimensional manner, closely aligned with sustainable development objectives and integration into the common market.

Unlike the enterprise-oriented model of Singapore or the technology-oriented model of South Korea, the EU adopts a balanced approach among three key dimensions: (i) novelty and technological innovation; (ii) economic value and competitiveness; and (iii) socio-environmental impact. According to OECD (2018), this approach reflects an expanded understanding of innovation, in which innovative products are not only the outcomes of R&D but also instruments for addressing socio-economic challenges.

A key feature of the EU framework is the integration of evaluation criteria with research and innovation funding policies, particularly within programs such as Horizon Europe. Products are evaluated not only for classification purposes but also to determine eligibility for public and private funding, thereby creating incentives for innovation (European Commission, 2022). Based on policy documents and relevant studies, the EU's criteria system can be categorized into four main groups, aligned with international trends but with a particular emphasis on impact.

First, novelty and technological advancement. The EU adopts the OECD framework in classifying innovation according to whether it is new to the firm, the market, or the world (OECD, 2018). However, this criterion is expanded by incorporating indicators of technological advancement, including: the application of new or advanced technologies; the number and quality of patents; the degree of differentiation in functionality, performance, or design; and the integration of digital and green technologies. Notably, the EU emphasizes "systemic innovation," in which products are not merely isolated improvements but components of broader solutions (European Commission, 2022), particularly in sectors such as energy, transport, and smart cities.

Second, economic value and competitiveness. In the EU, economic value is assessed based on the contribution of innovative products to the competitiveness of firms and the broader economy. Indicators typically include: revenue from new or improved products; market expansion within the EU and globally; participation in global value chains; and the ability to generate employment and enhance productivity. According to Janger et al. (2017), the EU places strong emphasis on measuring "innovation outputs," including new products and services introduced to the market, reflecting a shift from input-based to output- and impact-based measurement. The EU also considers long-term competitiveness through factors such as technological capability, continuous innovation, and international market positioning.

Third, societal and environmental impact. One of the most distinctive features of the EU approach is the inclusion of social and environmental impact as a core component of evaluation. Innovative products are assessed not only based on economic performance but also on their contributions to the Sustainable Development Goals (SDGs) (United Nations, 2015). Specific criteria include: reductions in greenhouse gas

emissions and efficient resource use; impacts on quality of life and social welfare; the ability to address societal challenges such as healthcare, education, and the environment; and alignment with the EU's green and digital transition strategies. In programs such as Horizon Europe, the "impact" dimension often accounts for a significant share of evaluation, sometimes equal to or exceeding scientific and technological criteria (European Commission, 2022), reflecting the EU's strong commitment to sustainable development.

Fourth, implementation, commercialization, and diffusion. The EU evaluates the implementation and commercialization capacity of innovative products through criteria such as: Technology Readiness Level (TRL); deployment readiness; business models and market strategies; and diffusion potential. TRL is widely used in EU funding programs to classify products according to development stages and determine appropriate levels of support (Mankins, 2009). At the same time, the EU emphasizes the diffusion of innovation within the ecosystem, including market adoption and scalability across member states.

From the above analysis, several key characteristics of the EU's criteria system can be identified: (i) a multidimensional and balanced approach, integrating technological, economic, and social dimensions into a comprehensive evaluation system; (ii) a strong emphasis on impact, particularly socio-environmental impact, reflecting a sustainable development orientation; (iii) close linkage with policy and public funding mechanisms, whereby evaluation results directly influence resource allocation; (iv) a high degree of standardization and comparability, enabling cross-country comparisons within the EU; (v) a strong emphasis on systemic and interdisciplinary innovation, particularly for addressing complex societal challenges.

IV. Conclusion and Policy Recommendations

This paper has approached the issue of identifying criteria for innovative products through a literature review, comparative analysis of three representative models, and the use of secondary data from international and national organizations. The research findings indicate that, despite differences in institutional contexts, levels of development, and policy orientations, countries tend to converge toward a multidimensional, integrated approach to identifying innovative products, closely linked to the innovation ecosystem.

First, the examined models consistently affirm that innovative products cannot be identified based on a single criterion but must be evaluated across multiple dimensions, including novelty, economic value, commercialization capability, and socio-environmental impact. In particular, South Korea emphasizes systematization and measurability through technological indicators; Singapore focuses on market value and scalability; while the EU extends evaluation to social impacts and sustainable development. This combination reflects a broader shift from input-based approaches toward output- and impact-based evaluation of innovation (OECD, 2018).

Second, methods for identifying innovative products are evolving from purely qualitative approaches toward hybrid models that combine quantitative and qualitative elements. Tools such as Technology Readiness Level (TRL), Commercial Readiness Level (CRL), and multi-criteria scoring systems are widely applied to enhance objectivity and comparability. At the same time, the role of data and digital platforms is becoming increasingly important, particularly in the models of Singapore and the EU, where the evaluation of innovative products is integrated with national and regional data systems (World Bank, 2020).

Third, the identification of innovative products is not merely a technical exercise but also an important policy instrument. The countries examined utilize criteria systems as a basis for resource allocation, policy design, and the promotion of innovation ecosystems. This demonstrates the close linkage between evaluation criteria and the effectiveness of innovation policy implementation.

Based on these findings, it can be concluded that the development of criteria for identifying innovative products should adopt a systemic, integrated, and flexible approach, tailored to the institutional context and level of development of each country. Drawing on international experience and research findings, this paper proposes several policy recommendations for Vietnam.

(1) Develop a multidimensional and integrated criteria framework. A key lesson from all three models is the need for an integrated set of criteria that comprehensively reflects the multiple dimensions of innovation. Vietnam should establish a criteria system comprising at least four core groups: (i) novelty and differentiation; (ii) economic value and competitiveness; (iii) commercialization and scalability; and (iv) socio-environmental impact. This approach allows for the integration of the strengths of different models: the measurability and systematization of South Korea, the market orientation of Singapore, and the sustainability focus of the EU. It also helps avoid fragmented evaluations that focus solely on a single dimension such as technology or revenue.

(2) Adopt a hybrid evaluation approach combining quantitative and qualitative methods. International experience shows that no single method can fully capture the value of innovative products. Therefore, Vietnam should adopt a mixed-method approach that integrates: quantitative indicators (e.g., revenue, patents, TRL, CRL); qualitative assessment through expert panels; and data analysis and benchmarking. The application of tools such as TRL and CRL will help standardize the evaluation process and provide a basis for classifying

products according to their development stages. At the same time, expert evaluation can complement measurable indicators by capturing aspects such as creativity and market potential.

(3) Strengthen the linkage between criteria and innovation data systems. One of the major gaps between Vietnam and the studied countries lies in the level of development of data systems. Vietnam should prioritize the establishment of a national innovation database, integrating data sources such as intellectual property, R&D activities, product revenues, and investment. The digitization and integration of data will facilitate the application of data-driven evaluation methods, similar to the models of Singapore and the EU, thereby enhancing transparency and management efficiency.

(4) Align criteria with policy support mechanisms and market orientation. A consistent lesson from international experience is that criteria for identifying innovative products must be closely linked to policy support systems. Vietnam should use evaluation results as a basis for: allocating financial resources (science funds, credit, venture capital); designing tax incentives and enterprise support policies; and identifying priority sectors. At the same time, a shift from input-based to output-based approaches is necessary, ensuring that evaluation criteria reflect value creation and market demand, in line with Singapore's experience.

(5) Design flexible criteria tailored to specific sectors and enterprise types. Given the diversity of industries and enterprise types, Vietnam should develop a flexible criteria system that can be adapted to different sectors (e.g., high technology, agriculture, digital services, green technology) and enterprise categories (SMEs, startups, large firms). This approach avoids rigid, one-size-fits-all criteria and creates favorable conditions for small and medium-sized enterprises—key actors in the innovation ecosystem—to participate and be recognized.

(6) Implement pilot programs and progressively refine the criteria system. Vietnam should adopt a sandbox approach in developing and implementing criteria for identifying innovative products. Pilot implementation in selected sectors or localities would allow for testing relevance, identifying limitations, and making timely adjustments.

Experience from South Korea, Singapore, and the EU shows that criteria systems are not static structures but must be continuously updated in response to technological and market developments. Therefore, Vietnam should establish mechanisms for periodic review and adjustment to ensure flexibility and effectiveness. In conclusion, the identification of criteria for innovative products is a foundational component in building a national innovation system. Through the synthesis of international experience and comparative analysis, this study demonstrates that an effective criteria system must integrate three key elements: scientific rigor and measurability; flexibility and contextual relevance; and strong linkage with policy and market mechanisms. For Vietnam, the development and implementation of such a system will not only enhance the effectiveness of state management but also create incentives for enterprise innovation, improve productivity, and strengthen national competitiveness in the context of a knowledge-based and globalized economy.

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