

SCIENTIFIC AND TECHNOLOGICAL PROGRESS AND ITS IMPACT ON ECONOMIC SECTORS, ECONOMIC GROWTH, AND INNOVATIVE DEVELOPMENT

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Innovation and scientific activity as factors in managing the organisations and territories' sustainable development

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Abstract. This study compares national scientific and innovation indicators with the sustainable development management goals of organizations and territories. Its purpose is to determine the extent to which indicators of scientific progress, innovation development, and the innovative economy align with the Sustainable Development Goals (SDGs) adopted by the UN General Assembly in 2015. The Global Innovation Index (GII), compiled annually by the World Intellectual Property Organization (WIPO), serves as the primary data source. Noting Russia's gradual decline in the GII rankings, the author emphasizes the critical importance of defining the role of science and innovation in achieving balanced socio-economic and environmental sustainability at macro, meso, and micro levels. The information and methodological framework draws on an analysis of Russian regulations governing innovation processes, alongside data from WIPO and the United Nations. Key findings identify: (1) the types of innovation exerting the strongest and weakest influence on sustainable development management processes for organizations and territories; (2) the distinct roles of the innovation environment, social innovations, economic innovations, and ecological innovations in fostering balanced sustainable development for economic entities; and (3) specific sustainable development management objectives that are either omitted or inadequately reflected in the indicators used to assess scientific and innovation progress at national, sectoral, and corporate levels.

Keywords: The Global Innovation Index, science and technology indicators, organisations and territories sustainable development, organisations and territories sustainable development management, innovation, scientific research, innovation sphere

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НАУЧНО-ТЕХНИЧЕСКИЙ ПРОГРЕСС И ЕГО ВЛИЯНИЕ НА ОТРАСЛИ ЭКОНОМИКИ, ЭКОНОМИЧЕСКИЙ РОСТ И ИННОВАЦИОННОЕ РАЗВИТИЕ

ОРИГИНАЛЬНАЯ ИССЛЕДОВАТЕЛЬСКАЯ СТАТЬЯ
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Инновационная и научная деятельность как факторы управления устойчивым развитием организаций и территорий

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Аннотация. Данное исследование посвящено сопоставлению показателей научной и инновационной деятельности стран с целями управления устойчивым развитием организаций и территорий. Цель работы – проанализировать, в какой степени показатели развития науки, инноваций и инновационной экономики соответствуют Целям устойчивого развития (ЦУР), принятым Генеральной Ассамблеей ООН в 2015 году. В качестве основы использован Глобальный инновационный индекс (GII), ежегодно составляемый Всемирной организацией интеллектуальной собственности (ВОИС). Автор отмечает постепенное снижение позиций России в данном рейтинге, в связи с чем на фоне задач по достижению ЦУР представляется крайне важным определить место и роль науки и инноваций в обеспечении сбалансированного развития социально-экономических и экологических факторов устойчивого развития на макро-, мезо- и микроуровнях. Информационно-методологическую базу составили анализ нормативных актов, регулирующих инновационные процессы в России, а также данные ВОИС и ООН. По результатам исследования: (1) выявлены типы инноваций, оказывающие наибольшее и наименьшее влияние на процессы управления устойчивым развитием организаций и территорий; (2) охарактеризована роль инновационной среды, социальных, экономических и экологических инноваций в обеспечении сбалансированного устойчивого развития экономических субъектов; (3) определены цели управления устойчивым развитием, которые не задействованы или задействованы не в полной мере при формировании перечня показателей для оценки развития научно-инновационной сферы стран, отраслей и корпораций.

Ключевые слова: Глобальный инновационный индекс, индикаторы науки и технологий, устойчивое развитие организаций и территорий, управление устойчивым развитием организаций и территорий, инновации, научные исследования, инновационная сфера

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Introduction

The national economy of any country develops extremely unevenly, both spatially (in terms of territory) and temporally; it is an unstable, developing system that requires external and internal inputs to achieve stability and sustainability. This can be attributed primarily to the multi-structural, diversified economy and the variety of growth and development trajectories of economic entities. As a result, the society, state and corporate sector face a trilemma of balanced development: economic growth and prosperity, social prosperity or the prioritisation of environmental measures in the policy and practice of economic management. This choice is being made under turbulent external conditions – consequences of exhausting the model of development based on raw materials; transition to a multipolar information world; foreign economic and political sanctions; increased protectionism in the global economy. Reindustrialisation (i.e., return of industrial production from developing to developed countries), increasing proportion of intangible goods, services and goods of symbolic value in international trade and global GDP and emergence of new digital business models require theoretical and practical

understanding of the role of innovation and its regulation in the sustainable development of socio-economic and environmental systems at the macro- (countries and inter-country associations), meso- (regions; sectors; sectoral and corporate clusters) and micro-levels (business units).

In the modern world, research and development (R&D) work constitutes an important object of study. With the growing role of technology across industries and the comprehensive effect of information technology on all areas of public life, R&D activities facilitate the emergence of innovations, which in turn raises the general standard of living worldwide and ensures the technological sovereignty of individual states. The era of globalisation, which reached its height in the two previous decades, has somewhat diminished the importance of key R&D centres around the world. A large number of countries have become technologically dependent on their more successful partners, most often Western countries.

The events of recent years have clearly demonstrated the danger of the previously chosen path of sustainable economic development; the need to support domestic scientific centres and create high-tech production facilities became

apparent in Russia as well. The sanctions imposed by the West have had a positive effect: comprehensive import substitution prompted the development of Russian science and technology, which happened not without the support of Eastern technology partners (Iran, China and others). The new stage in the development of scientific activities in Russia has drastically increased the importance of R&D resource allocation.

In the 2024 Global Innovation Index compiled by the World Intellectual Property Organization (WIPO), Russia ranked 58th, down from 47th in 2022¹. In terms of the number of scientific articles, ISO 9001 quality certificates and exports of information and high technologies, the Russian Federation ranked only 85th, 105th, 70th and 60th, respectively, in 2022². This trend indicates systemic problems in the domestic sphere of science and innovation, which affect individual industries and areas of activity (primarily the knowledge-intensive sector), as well as the sustainable development of the national economy as a whole (Strizhakova & Strizhakov, 2023).

The present study is aimed at determining how the development of science and innovation, including in terms of their regulation in Russia, affects the sustainable development management of organisations and territories as key and equally important actors in the modern economy. To this end, the following objectives should be fulfilled: to examine the impact of various types of innovation on the sustainable development management of organisations and territories; to characterise the extent to which indicators of scientific and innovation development correspond to the goals and objectives of sustainable development management adopted by the United Nations (UN) and ratified by member states, including

Russia; to provide examples of innovation indicators at different levels of sustainable development management corresponding to environmental, social and economic innovations.

Materials and methods

As the basis for economic growth and development at all levels, innovation and scientific activities were considered in the works of Russian scientists (Glazyev, 2024; Kondratiev, 2002; Kudina & Kuzmin, 2021, etc.) and their foreign colleagues (Wei et al., 2025; Govindarajan & Venkatraman, 2024; Christensen, 2024). The relationship between science, innovation, sustainable development and economic growth was explored in the works of George Kleiner (2020), Oleg Sukharev (2025), Charles Jones and Dietrich Vollrath (2018) and Tumin et al. (2019).

The role and place of science and innovation in the sustainable development of the economy and society are approached in two ways. Joseph Schumpeter considered scientific activity and innovation to be the cause of cyclical, yet unstable, economic development both during the stages of growth and decline. In many ways, it was his concept of innovation-driven economic development that was subsequently used to predict many structural economic crises, including the crisis of 2008 (Ordecana et al., 2024). The ideas of cyclical and unstable economic development are directly related to Kondratiev waves. In this context, the discrete (or “cluster-like”) nature of innovations is emphasised, as well as their crucial role in ensuring economic growth at both the meso- and macro-levels (Kirillov & Smirnov, 2019). Israel Kirzner singles out innovative entrepreneurship as a factor in future economic balance and stability, including in terms of information – a situation close to perfect competition, where economic agents are aware of each other’s intentions (Krutko, 2016).

When considering how innovation indicators affect sustainable development, it is worth referring to the work of Thanh et al. (2025) which provides developed correlation models representing the impact of technological innovations on the sustainable development of territorial

¹ The World Intellectual Property Organization. Global Innovation Index 2024. 17th Edition. Available at: https://www.wipo.int/web-publications/global-innovation-index-2024/assets/67729/2000%20Global%20Innovation%20Index%202024_WEB3lite.pdf

² The World Intellectual Property Organization. Global Innovation Index 2022. 15th Edition. Available at: <https://www.wipo.int/documents/d/global-innovation-index/docs-en-wipo-pub-2000-2022-en-main-report-global-innovation-index-2022-15th-edition.pdf>

mesosystems. The number of patent applications is used as a key indicator of innovation development. Babina et al. (2024) note the impact of technology and investment in artificial intelligence on the sustainable development of organisations. The key mechanisms behind the impact of innovation on sustainable development are as follows:

- innovations create opportunities to improve resource management and reduce harmful process emissions into the environment (Anwar et al., 2022).
- innovations reduce the technological gap and inequality between developed and developing countries and territories (Ozkaya et al., 2021);
- innovations contribute to the development of the knowledge economy and the circular economy.

The modern global economy is innovation-driven, which means that international trade and value creation are driven primarily by knowledge-intensive products and innovative services related to the circulation of intangible goods and goods of symbolic value. The experience of developed countries shows that science and innovation are the foundation for the medium- and long-term sustainable development of socio-economic and environmental systems. This can be attributed to the fact that scientific and innovation activities are associated with a significant risk of short-term fluctuations in the performance indicators of economic entities. The implementation of scientific advances, both at the level of individual

organisations and at the national and international levels, essentially reflects the nature of sustainable development: deviation of the system from its stable state and development under the conditions of “managed instability,” followed by a return to the stable state but at a new level. The lack of scientific and innovation activities leads to stagnation, while stability in itself contradicts the ideas of sustainable development management.

Noteworthy is that not all types of innovation are equally effective in ensuring sustainable economic, environmental and social development (Table 1). Table 1 presents types of innovation classified according to the level and duration of their impact on the sustainable development management of organisations and territories. The classification adopted in the Oslo Manual³—the main standard containing a procedure for collecting data on the innovative activities of countries around the world – will be used as the basis, with the inclusion of several additional types of innovation.

A long-term sustainable effect can only be achieved through radical innovations (product and process innovations, primarily technological), for example, the introduction of digital technologies in business activities (Trifonov et al., 2025), while the rest are either medium-term (organisational innovations) or have an exclusively short-term (marketing and incremental innovations) or even illusory effect (pseudo innovations). This leads to an important conclusion: if the state or corporate sector is interested in sustainable development, regulatory measures

Table 1. The effect and duration of the various types of innovations impact on the organisations and territories sustainable development management process

		Duration		
		Short-term	Medium-term	Long-term
Effect of innovation	Significant	Marketing innovations		Process innovations
	Medium	Incremental innovations	Organisational innovations	Product innovations
	Low	Pseudo innovations		

Source: Oslo Manual 2018, the author's original developments

³ OECD. Oslo Manual 2018. Guidelines for Collecting, Reporting and Using Data on Innovation, 4th Edition. Available at: https://www.oecd.org/content/dam/oecd/en/publications/reports/2018/10/oslo-manual-2018_g1g9373b/9789264304604-en.pdf

and financial resources should be focused primarily on product and process innovations, which are created as a result of a long cycle of basic and applied research.

Legal instruments for R&D regulation in Russia

Let us take a closer look at the regulation of scientific and innovation activities in Russia. One of the key documents in the field of R&D regulation is Federal Law No. 127-FZ as of August 23, 1996, "On Science and State Science and Technology Policy" (as amended in 2024). In particular, it defines "research activity" as an activity aimed at obtaining and applying new knowledge, which can be conducted in the form of basic (theoretical or experimental activities), applied (achievement of practical, including commercial, goals) and exploratory research (acquisition of new knowledge for subsequent practical application). In addition, this law defines scientific and technological activity as an activity aimed at acquiring new knowledge and its subsequent application to solve problems of engineering, socio-economic, humanitarian and other nature. The final stage of the innovation process is experimental developments, which are defined in the law as activities which rely on knowledge acquired through scientific research or accumulated experience and are designed to achieve a wide range of goals: from the preservation of life and health to the creation of new processes, materials, technologies and services. The result of R&D activities is a product that "contains new knowledge or solutions and is recorded on any storage medium." If this product assumes a form suitable for implementation, then, in accordance with this law, it falls within the definition of scientific or sci-tech products⁴.

Another document regulating scientific activity is the Civil Code of the Russian Federation. In particular, Article 769 defines research work as research activities conducted in accordance with the customer's specifications;

development work, as the creation of a prototype of a new product⁵.

The Tax Code of the Russian Federation (Article 262) provides a list of taxpayers' expenses for research and/or development work, which includes accrued depreciation (except for depreciation of buildings and civil engineering works); labour expenses for employees engaged in scientific activities (proportional to work time); expenses for material and physical resources used for innovation activities; expenses for intellectual property and intangible assets (licenses, rights, patents, utility models, etc.)⁶.

Therefore, despite the absence of a single definition of R&D activities (since separate definitions exist for research and development work) and a corresponding law on their implementation, Russian legislation covers the aspects of scientific and technological development and related issues in sufficient detail. This is just a small part of the laws governing R&D activities. In Russia, scientific and innovation activities are also regulated by other normative legal acts at various levels, which directly or indirectly cover different aspects of research and development, including allocation of resources (financial, labour, material, institutional, information and reputational).

Russian science has a sufficiently wide range of legal instruments for conducting innovation activities. Combined with comprehensive state R&D support, this indicates the state's interest in science, even in those areas that are of no commercial interest to private and institutional investors but are necessary for the Russian economy, as well as suggesting further R&D progress with the allocation of all necessary resources.

⁴ Consultant Plus. Federal Law No. 127-FZ as of August 23, 1996, "On Science and State Science and Technology Policy". Available at: https://www.consultant.ru/document/cons_doc_LAW_11507/c0a49fc869aeeb5b28ca88d3d37b7d8f7474375f/

⁵ Consultant Plus. Civil Code of the Russian Federation (part two), No. 14-FZ of January 26, 1996 (as amended of July 24, 2023) (rev. and exp., effective as of September 12, 2023). Article 769. Contracts for Research, Development and Technological Work. Available at: https://www.consultant.ru/document/cons_doc_LAW_9027/0ee419ba85ccba3a856846751c1e208007aa9b05/

⁶ Consultant Plus. Tax Code of the Russian Federation (part two), No. 117-FZ as of August 5, 2000 (as amended of December 12, 2024). Article 262. Expenses for Research and/or Development Work. Available at: https://www.consultant.ru/document/cons_doc_LAW_28165/aa9832fb416dd0274acf737be8e4c157866abf0b/

The study used a comparative analysis method, focusing on the groups of indicators used to calculate the Global Innovation Index and the UN's goals of sustainable development grouped semantically and in accordance with innovation indicators. Using the analogy method, the present author examines types of innovation in accordance with the conventional division of sustainable development into economic, social and environmental spheres, establishing a correspondence between development indicators at the macro-, meso- and micro-levels with economic, social and environmental innovations.

Results

In order to better understand which specific indicators should be used to establish a correspondence between the development level of the innovation sphere and the goals of sustainable development management, let us analyse indicators used to calculate the Global Innovation Index (which includes science indicators) from the perspective of their consistency with the goals and objectives of sustainable development management of organisations and territories.

Let us conduct a comparative analysis of the groups of innovation indicators and the goals

Table 2. Compliance of indicators groups forming The Global Innovation Index with the goals of the United Nations Sustainable Development Management

Indicators used in the Global Innovation Index	Goals of sustainable development management
Institutions <ul style="list-style-type: none"> • institutional environment • regulatory environment • business environment 	Goal 8: Decent work and economic growth Goal 16: Peace, justice and strong institutions Goal 17: Partnerships for the goals
Human capital and R&D <ul style="list-style-type: none"> • primary and secondary education • tertiary education • research and development 	Goal 4: Quality education Goal 9: Industry, innovation and infrastructure
Infrastructure <ul style="list-style-type: none"> • information and communication technologies (ICTs) • ICT infrastructure • ecological sustainability 	Goal 3: Good health and well-being Goal 7: Affordable and clean energy Goal 9: Industry, innovation and infrastructure Goal 12: Responsible consumption and production Goal 13: Climate action
Market <ul style="list-style-type: none"> • credit • investment • trade 	Goal 8: Decent work and economic growth Goal 9: Industry, innovation and infrastructure Goal 11: Sustainable cities and communities
Business sophistication <ul style="list-style-type: none"> • knowledge workers • innovation linkages • knowledge absorption 	Goal 9: Industry, innovation and infrastructure Goal 17: Partnerships for the goals
Knowledge and technology outputs <ul style="list-style-type: none"> • knowledge creation • knowledge impact on labour productivity • knowledge diffusion 	Goal 4: Quality education Goal 9: Industry, innovation and infrastructure
Creative outputs <ul style="list-style-type: none"> • intangible assets • creative goods and services • online creativity 	Goal 9: Industry, innovation and infrastructure Goal 17: Partnerships for the goals

Source: The World Intellectual Property Organization 2024⁷; 2015 UN data⁸; the author's original developments

⁷ The World Intellectual Property Organization. Global Innovation Index 2024. 17th Edition. Available at: www.wipo.int/web-publications/global-innovation-index-2024/assets/67729/2000%20Global%20Innovation%20Index%202024_WEB3lite.pdf

⁸ United Nations. Sustainable Development Goals, 2015. Available at: <https://www.un.org/sustainabledevelopment/ru/sustainable-development-goals/>

of sustainable development adopted by the UN General Assembly in 2015 (*Table 2*).

It follows from *Table 2* that not all goals of sustainable development management are taken into account when calculating the index, in particular: Goal 1: No poverty; Goal 2: Zero hunger; Goal 3: Good health and well-being (indirectly through environmental sustainability indicators); Goal 5: Gender equality; Goal 6: Clean water and sanitation; Goal 10: Reduced inequalities; Goal 14: Life below water; Goal 15: Life on land.

On the one hand, this constitutes an area for further development, both in terms of the ranking discussed in the present article and other similar rankings created for regional, territorial and industry levels, as well as indicators of development in the sphere of science and innovation. Examples include the Global Innovation Index of the federal subjects of Russia, the indicators of innovation activities of the Higher School of Economics, collections of indicators of scientific activity by Rosstat, the Environmental Performance Index of the World Economic Forum and others. On the other hand, the specified unaccounted goals (as well as related tasks and indicators of sustainable development) reflect the basic needs of the society and the environment, which require coordinated actions of the international community and basic technological solutions rather than cutting-edge developments. For example, African countries suffering from disease and hunger need medicines that were developed back in the 1950s and basic food products whose production technologies have been perfected for decades.

Discussion

In order to more closely examine the impact of science and innovation on the sustainable development management of organisations and territories, let us classify innovations according to the same criteria as sustainable development, i.e., social, economic and environmental innovations. As with sustainable development management, this division reflects the focus areas of research. Tretyakova et al. (2020) define economic innovations as new products, technologies or improvements to existing facilities

used in delivering economic growth. Environmental and social innovations are much more frequently discussed in the literature. In particular, Rosstat defines environmental innovation as “a new or significantly improved product, service or method of production (transfer); a new or significantly improved business process or a combination thereof that contributes to increasing environmental safety, reducing or preventing negative impacts on the environment.”⁹ The Great Russian Encyclopaedia defines social innovations as “a process or result of intellectual activities and social engagement that transforms social relations. Social innovations involve changing or creating new social practices and institutions, as well as forming communities (social networks) on their basis.”¹⁰

The concept of sustainable development management was put forward by the UN World Commission on Environment and Development (Brundtland Commission), which described sustainable development as “meeting the needs of the present without compromising the ability of future generations to meet their own needs.”¹¹ With regard to the equivalence of economic, environmental and social aspects of sustainable development, no consensus has been reached in the scientific community. For example, Oleg Sukharev clarifies this wording as follows: “the current needs are satisfied, and the quality of life is assured through the enhancement of future potential by increasing the natural resource potential (wealth components),” presenting it as a criterion for global development effectiveness instead of conventional balanced sustainability (Sukharev, 2024). In the works of Herman Daly (2020) and Engler et al. (2024), it is noted that the economic component is often a barrier to innovative growth, as science and innovation development are associated with a long pay-back period, while investors are interested in a quick capital recovery.

⁹ Rosstat. Concepts and definitions (Innovations). Available at: https://rosstat.gov.ru/storage/mediabank/innov_po.pdf

¹⁰ Great Russian Encyclopaedia. Social Innovation. Available at: <https://bigenc.ru/c/sotsial-naia-innovatsiia-31ec24>

¹¹ Brundtland G.H. (1987). Report of the world commission on environment and development: Our common future. World Commission on Environment and Development. Available at: <https://sustainabledevelopment.un.org/content/documents/5987our-common-future.pdf>

An analysis of the current state of sustainable development management and innovation sector reveals that, despite the UN's initial declaration of the equality of all components of a sustainable system – social, economic and environmental factors – in reality, their significance is not equal. Priority is given to those factors of sustainable development that have a direct impact on economic growth and development: per capita income, amount of profit, total exports and imports of goods and services, etc. In turn, social factors are considered to be secondary, dependent on indicators of life quality and economic welfare of the population, companies and the country, while environmental factors are paid the least attention.

Scientific and innovation activities serve as external factors (they can be implemented and created in another country, for other purposes and be initially focused on other goals) that have the required “balancing” effect on the three key elements in the management of sustainable development (*Figure 1*).

Thus, the environment of science and innovation serves as a means of balancing the

interests of key stakeholders of organisations and territories at the micro-, meso- and macro-levels, in particular through government tools and corporate mechanisms for promoting innovation (allocation of R&D funds; participation in public tenders; promotion of rationalisation; creation of in-house scientific departments; cooperation with the academic sector).

In order to distinguish between the interests of stakeholders, it is necessary to establish a correspondence between various indicators of scientific and innovation activity and social, environmental or economic innovations at different levels of the economy (*Table 3*).

Table 3 provides an example of how indicators characterising economic, environmental and social innovations can be used to take into account the interests of stakeholders in sustainable development management at different levels of the economy. This list of indicators for each level can and should be expanded in accordance with the list of indicators used in official statistics, which reflect both the state of the innovation sphere and the level of regional and corporate development.

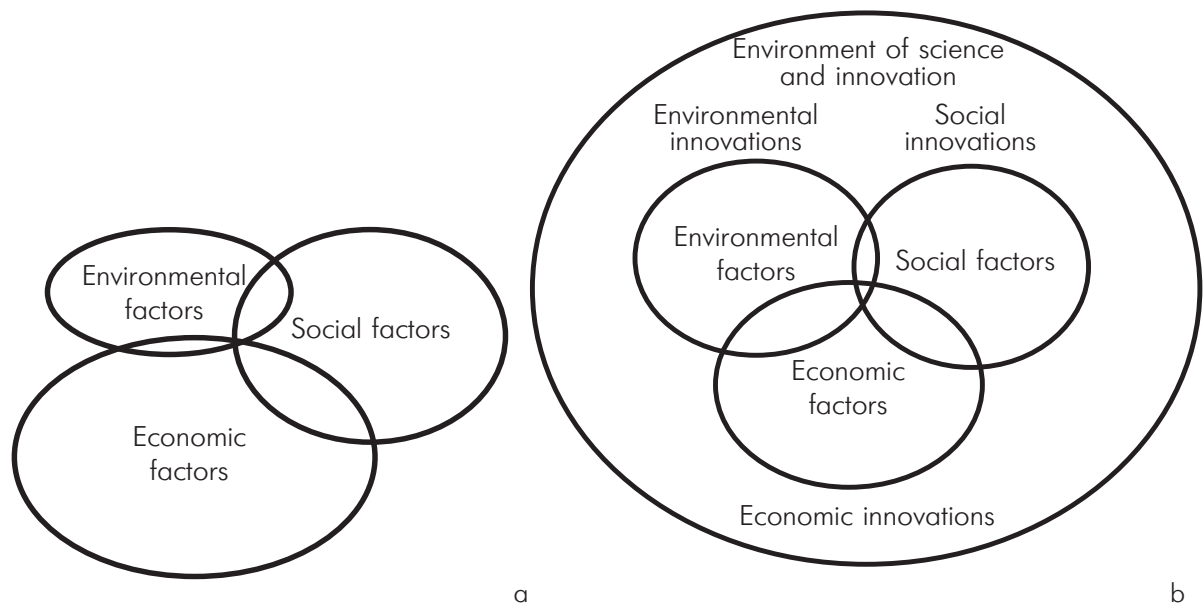


Figure 1. a) The prevailing perception of the organisations and territories' sustainable development managing factors; b) The science, innovation and the innovation environment impact on the organisations and territories' sustainable development managing factors

Source: Zakharov, 2023; the author's original developments

Table 3. The compliance examples of indicators characterizing the innovations types with the level of stakeholders in the organisations and territories sustainable development management

		Macro-level	Meso-level	Micro-level
Economic agents/ Stakeholders in sustainable development management		Federal government; international organisations; intergovernmental political associations	Sectors and sectoral clusters; multinational corporations and corporate associations; regions, territories (clusters) and regional authorities	Individual organisations; employees and management of organisations; suppliers and customers; banks and borrowers
Types of innovation in the concept of sustainable development management	Environmental innovations	Amount of the federal budget allocated to environmental protection	Area of land designated as nature reserves; number of patents in the field of environmental technology per capita	Amount of pollution emissions
	Social innovations	Proportion of citizens with a college degree	Quality of Life Index for the population of a region/territory	Workplace accident rate
	Economic innovations	GDP per capita	GDP per capita	Company's profit

Source: the author's original developments

Conclusion

The reality of sustainable development management in Russia and most countries around the world is that decision-makers at the macro-, meso- and micro-levels are primarily interested in achieving economic results – profits and their many variations at the corporate, industry and (inter-)country levels. On the one hand, funds generated from operating, investment and financial activities can be used to achieve environmental and social goals. On the other hand, solving key sustainable development issues of countries is not limited to obtaining the necessary funding and requires a comprehensive approach. Therefore, the environment of science and innovation as a whole, its regulatory aspects and specific types of innovation in particular can serve as a stabilising factor, reducing imbalances in the sustainable development of organisations and territories.

A detailed analysis of various types of innovation led to the conclusion that product and process innovations are most consistent with achieving goals in the sustainable development management of organisations and territories, which are focused primarily on long-term benefits rather than short-term gains. In order to compile a more substantiated list of innovation indicators, it is reasonable to divide innovations into three types – economic, social and

environmental innovations – by analogy with the sustainable development goals adopted by the UN. The presented terminology is widely used in scientific journals and official sources, which means it can be used to correlate the relevant types of innovation with the interests of stakeholders at the country, regional, industry and corporate levels.

A comparative analysis of the indicators used in the Global Innovation Index (the leading ranking tool in the field of science and innovation) and the sustainable development goals showed that eight of the 17 goals adopted by the UN are not taken into account in shaping the environment of science and innovation of countries around the world. In the long term, sustainable development is impossible without science and innovation. The very essence of such development lies in entering the instability zone and transitioning to a new level of development, which often (in the long term) means transitioning to a new technological paradigm. Therefore, the most important aspect of further improving the ranking under consideration and similar rankings is to better coordinate the elements for assessing the environment of science and innovation with the goals of sustainable development management. The comparative analysis of WIPO and UN data presented in this article is only a special case, as science

and innovation indicators are part of activities in virtually all economic sectors. In addition, the statistical services of countries and individual territories use both science and sustainable development indicators (one of the latest trends) in the methodology for assessing the social, environmental and economic development of regions. Therefore, in order to ensure the consistency between the goals and objectives of innovation and sustainable development, the

corresponding indicators should be mutually consistent and, where possible, complement each other.

Competing Interests

The author declares that there is no conflict of interest.

Конкурирующие интересы

Автор заявляет об отсутствии конфликта интересов.

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