

ORIGINAL PAPER



DOI: 10.26794/2304-022X-2024-14-3-64-77
UDC 338.24(045)
JEL F5, Q18

World Trends in State Regulation of the Development of Organic Agriculture and the Market of Organic Products: Experience of the USA, the EU And Russia

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ABSTRACT

The relevance of the topic of research is determined by the need to address the problems of environmental and socio-economic nature arising against the background of industrialized society, which causes interest in the development of organic agriculture and the formation of a dynamically growing market for organic products. **The purpose** of the study is to analyze the trends in the development of the global organic market and a comparative analysis of the practices of state regulation of this segment in the United States, the EU and Russia. In the course of the work such scientific methods as synthesis and deduction were used; the information and analytical base was the data of the journal "The World of Organic Agriculture" and publicly available information from the official websites of the Ministries of Agriculture of the United States and the Russian Federation, the European Commission, the Union of Organic Agriculture. The article presents the results of consideration of the dynamics of sales volumes and changes in the average per capita consumption of organic products in the world market, as well as the description of mechanisms of state regulation of organic agriculture and the organic market in the United States, the EU and Russia, highlighting their distinctive characteristics. The study of such issues allows to rationally apply foreign experience, excluding a high degree of risk when making strategic decisions in the formation of directions of development of the agrarian sector of the economy within the framework of national interests. **The results** of the study can be useful both in the development of programs for the development of organic agriculture at the level of sub-sectors of the economy, and in relation to the subjects of the Russian Federation, striving for sustainable development of the regional market of this type of products.

Keywords: agricultural policy; food policy; organic agriculture; organic products market; development prospects; state regulation

For citation: Fedorova M.A., Ozerova M.G. World trends in state regulation of development of organic agriculture and organic products market: Experience of the USA, EU and Russia. *Upravlencheskie nauki = Management Sciences*. 2024;14(3):64-77. (In Russ.). DOI: 10.26794/2304-022X-2024-14-3-64-77

INTRODUCTION

Global environmental problems, as well as the depletion of natural resources, including agricultural land, have necessitated the revision of traditional technologies for the production of agricultural products and final foodstuffs [1]. State policies in this area should take into account the solution of issues related to agriculture, as well as the tasks of supplying the population with food of high quality in the required volume. Improving the quality of life and ensuring environmental safety of territories and foodstuffs are among the main goals of the national policy of the world's leading countries and are "identified as a priority in the activities of the United Nations for the period up to 2030" [2, 3].

The development of the agricultural sector has always received a lot of attention, but the focus of this study is on the agricultural sector, which is called organic and is considered from the point of view of the implementation of the concept of environmental sustainability of production, and such a segment of the world food market as organic products.

The activities of agricultural enterprises adhering to such principles are mainly aimed at "reducing the intensity of natural resource use", in particular, reducing the chemical load on land and, as a result, the formation of the agricultural sector as part of the ecosystem [4].

The directions of development of organic agriculture are consistent with the objectives of its sustainable development, while taking into account the issues of achieving environmental and food security of the state, improving nutrition, improving the quality of life of the population and preserving the health of the nation [5]. An increasing number of countries approve strict requirements for the organisation of organic production, building mechanisms for its state support in accordance with national interests.

CURRENT TRENDS IN THE DEVELOPMENT OF THE WORLD MARKET OF ORGANIC PRODUCTS

Recognition of the need for the creation of organic production was formalised in the UK in 1967, when the Soil Association presented the first specialised (organic) standard containing technical conditions for quality control and origin of products, giving consumers a legal guarantee. This document contains the results of a scientific experiment lasting 20 years, the subject of which was a comparative analysis of organic, integrated, and chemical farming systems. It is worth noting that today more than 70% of UK organic produce is certified by the independent charity Soil Association.¹

According to statistics reflected in the annual report "The World of Organic Agriculture", officially presented in Germany during the Biofach exhibition, in 2021, 191 countries represented their organic products on the world market compared to 86 in 2000.² Every year the number of companies producing such goods is also growing. Thus, in 2021 there were 3.7 million of them certified, which exceeds the level of 1999 by 18.5 times, indicating the dynamic development of this market. The volume of global sales of organic products is also constantly expanding. If in 2021, this market segment was estimated at 124.8 billion euros, compared to 15.2 billion euros in 1999, there is an increase of more than 8 times (*Fig. 1*) [6].

Like any other market, the organic market has its leaders. Let us present them broken down by key indicators (see *Table* below).

According to *Table*, from 2017 to 2021, Australia and Argentina were leaders in terms of turnover of areas allocated to organic agriculture (35.7 and 4.1 million hectares, respectively). In terms of the number of producers of organic products

¹ Legal and regulatory framework for organic agriculture in the world. Organic Farming Union (official website). URL: <https://soz.bio/normativno-pravovaya-baza-organichesk-2/>

² Yearbook "The World of Organic Agriculture": 2000–2023. URL: <https://www.organic-world.net/yearbook.html>

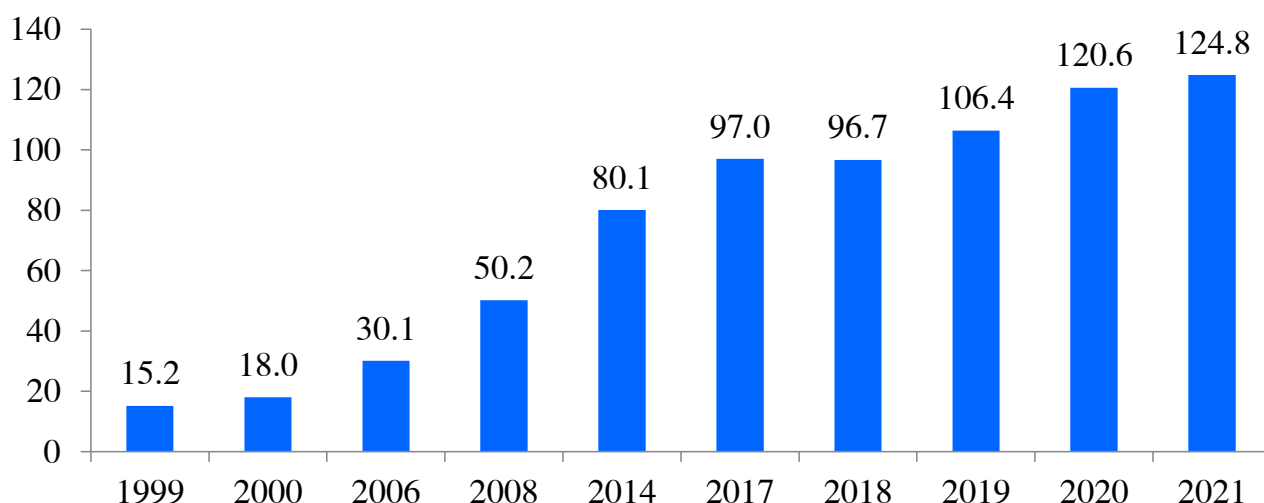


Fig. 1. Dynamics of sales volumes of organic products on the world market, billion euros

Source: compiled by the authors based on the data Yearbook "The World of Organic Agriculture": 2000–2023. URL: <https://www.organic-world.net/yearbook.html>

for five years, India is the first, where the number of producers has almost doubled — from 835 to 1599 thousand units. By such an indicator as sales volume, the United States, Germany and France are ahead of all, annually increasing the turnover of organic products. During the reporting period, the United States increased organic sales by 21.5%, Germany — by 59.0%, France — by 60.76%. However, the first place in terms of average per capita consumption of organic products for a number of years is occupied by Switzerland (increase in consumption level in the interval from 2017 to 2021 — from 288 to 425 euros / person per year), Denmark (from 278 to 384 euros / person per year) and Luxembourg (from 265 to 313 euros / person per year) with an average per capita consumption of organic products in the world in 2021–15.7 euros / person per year and in the European Union — 84 euros / person per year³ [6, 7].

Along with this, as noted by R. W. Verburg, E. Verberne and S. O. Negro. Negro, the saturation of world markets by type of organic products also varies. For example, "the market share of organic

dairy products in 2019 was 21% in Denmark, 16% in Austria and only 4.1% in the Netherlands' [8].

In Russia, this market segment is only beginning to emerge. The key prerequisite is the need to create sustainable agricultural production, independent of the Western policy based on the application of various sanctions. At the same time, there are already positive results of state regulation of the agricultural sector.

According to the yearbook "The World of Organic Agriculture", the market of organic food products in Russia in 2020 was estimated at 0.19 billion euros and accounted for only 0.16% of the world market,⁴ and in 2021 (according to Rosstat) — 24.4 billion roubles (about 0.24 billion euros) and 0.19% of the world market. [6].

The total volume of organic products in Russia in 2021 was 287.8 thousand tonnes, 69.73% of which covered the domestic needs of the population, and 30.27% — went to meet foreign trade obligations [9]. According to Roskachestvo, in 2022 the number of "organic" regions increased from 40 to 45; 173 agricultural producers were certi-

³ Action plan for organic production in the EU. URL: https://agriculture.ec.europa.eu/farming/organic-farming/organic-action-plan_en

⁴ Yearbook "The World of Organic Agriculture": 2000–2023. URL: <https://www.organic-world.net/yearbook.html>

Table

Top leading countries in the global organic market

Years Key indicators	2017	2018	2019	2020	2021
Area of land under organic agriculture, mln hectares	Australia – 35.6 Argentina – 3.4 China – 3.0	Australia – 35.7 Argentina – 3.6 China – 3.1	Australia – 35.7 Argentina – 3.7 Spain – 2.4	Australia – 35.7 Argentina – 4.5 Uruguay – 2.7	Australia – 35.7 Argentina – 4.1 France – 2.8
Number of organic producers, units.	India – 835 000 Uganda – 210 352 Mexico – 210 000	India – 1 149 371 Uganda – 210 352 Ethiopia – 203 602	India – 1 366 226 Uganda – 210 353 Ethiopia – 203 602	India – 1 599 010 Ethiopia – 219 566 Tanzania – 148 607	India – 1 599 010 Uganda – 404 246 Ethiopia – 218 175
Sales of organic products, billion euros	USA – 40.0 Germany – 10.0 France – 7.9	USA – 40.6 Germany – 10.9 France – 9.1	USA – 44.7 Germany – 12.0 France – 11.3	USA – 49.5 Germany – 15.0 France – 12.7	USA – 48.6 Germany – 15.9 France – 12.7
Average per capita consumption of organic products, EUR/person/year	Switzerland – 288 Denmark – 278 Sweden – 237	Switzerland – 312 Denmark – 312 Sweden – 231	Denmark – 344 Switzerland – 338 Luxembourg – 265	Switzerland – 418 Denmark – 384 Luxembourg – 285	Switzerland – 425 Denmark – 384 Luxembourg – 313

Source: compiled by the authors based on the data Yearbook "The World of Organic Agriculture": 2000–2023. URL: <https://www.organic-world.net/yearbook.html>

fied; 146 of them are directly involved in organic production.⁵

The redistribution of land resources in favour of the development of this type of farming is evidenced by the following data: 2020 in our country, the area of land under organic farming was equal to 615.2 thousand hectares, and already in 2021–655.5 thousand hectares.⁶ (According to this indicator, Russia is in 14th place among the world countries).

⁵ Roskachestvo presented a rating of organic regions of Russia based on the results of 2022. Union of Organic Farming (official website). URL: <https://soz.bio/roskachestvo-predstavilo-reyting-org/>

⁶ Yearbook "The World of Organic Agriculture": 2000–2023. URL: <https://www.organic-world.net/yearbook.html>

MECHANISM OF STATE REGULATION OF ORGANIC AGRICULTURE AND ORGANIC MARKET: COMPARATIVE ANALYSIS

Since each state – participant of the organic market has its own specific economy, its own potential for the development of organic production, the mechanisms of regulation and state support are built individually. They depend on such conditions as the level of legal regulation, the availability of resource potential, the amount of demand for organic food, the presence of a developed sales network. Let us consider the practices of state support and the expected results of the development of the market under consideration, characteristic of the United States, the European Union and Russia.

Specifics of regulation of organic agriculture in the USA

The official website of the US Department of Agriculture in 2022 presents the Organic Transition Initiative (OTI)⁷ (hereinafter — the Initiative) — an interagency programme worth \$ 300 million. The prerequisite for its appearance was the negative trends identified in the dynamics of the organic market in 2021.

Despite the fact that “organic products are available in all US markets and, according to surveys, 40% of Americans said that most of the products they consume are organic”, there is a downward trend in their sales compared to 2020 by € 0.9 billion euros, or 1.82% [10].

Thus, the main objective of the Initiative is “to support producers during the period of transition to organic production and in the first years after certification (in order to minimise their risks associated with technical and market problems), as well as to assist in the formation and dynamic development of the organic market”.⁸ Three U.S. government agencies are directly involved in the regulation of this process: the Agricultural Marketing Service, the Natural Resources Conservation Service, and the Risk Management Agency.

The main parts of the mechanism of state support of organic agriculture in the country, presented in the Initiative, in particular, in the “Programme of transition to organic partnership”⁹ (hereinafter — the Programme) and other similar documents, are reflected in Fig. 2.¹⁰

This Programme is implemented in six regions of the United States and involves partner non-profit organisations, which make a

significant contribution to the development of organic production, providing interaction between farmers and regional mentors; providing training opportunities; providing assistance in agronomy and certification procedures, as well as in the implementation of planning, conservation and regulation of business development. It is worth noting that great importance is attached to counselling in the application of the latest organic technologies and exchange of practical experience.

In the USA, there is a mandatory condition for farmers — land intended for organics must not be treated with prohibited substances (in particular, synthetic pesticides) for 3 years.

It should be emphasised that the business partners in the implementation of the Programme are Tuskegee University, the Small Farm Research Centre of the University of Alabama Agricultural and Mechanical Sciences and Auburn University, which regularly conducts seminars on organic farming.

Iowa State University, which has a sub-programme in this area, is also noteworthy, as is the Field Day project on science-based farming and educating farmers about the benefits of organic practices in the face of climate change, which attracted 256 participants in December 2023.¹¹

Another area of state support of organic agriculture in the United States is direct assistance to farmers. For example, the Risk Management Agency implements the “Organic Conversion Assistance Programme”, which provides a number of discounts (premium subsidies) to cover costs:

- premium subsidies to cover the cost of 10 percentage points on crops undergoing certification as part of the transition to organic production;
- insurance assistance of \$ 5 per insured acre

⁷ Organic Transition Initiative. U.S. Department of Agriculture. URL: <https://www.farmers.gov/your-business/organic/organic-transition-initiative>

⁸ Ibidem.

⁹ Transition to Organic Partnership Program. U.S. Department of Agriculture. URL: <https://www.ams.usda.gov/services/organic-certification/topp>

¹⁰ TOPP Success Stories. U.S. Department of Agriculture. URL: <https://www.ams.usda.gov/services/organic-certification/topp/stories>

¹¹ TOPP Success Stories. U.S. Department of Agriculture. URL: <https://www.ams.usda.gov/services/organic-certification/topp/stories>

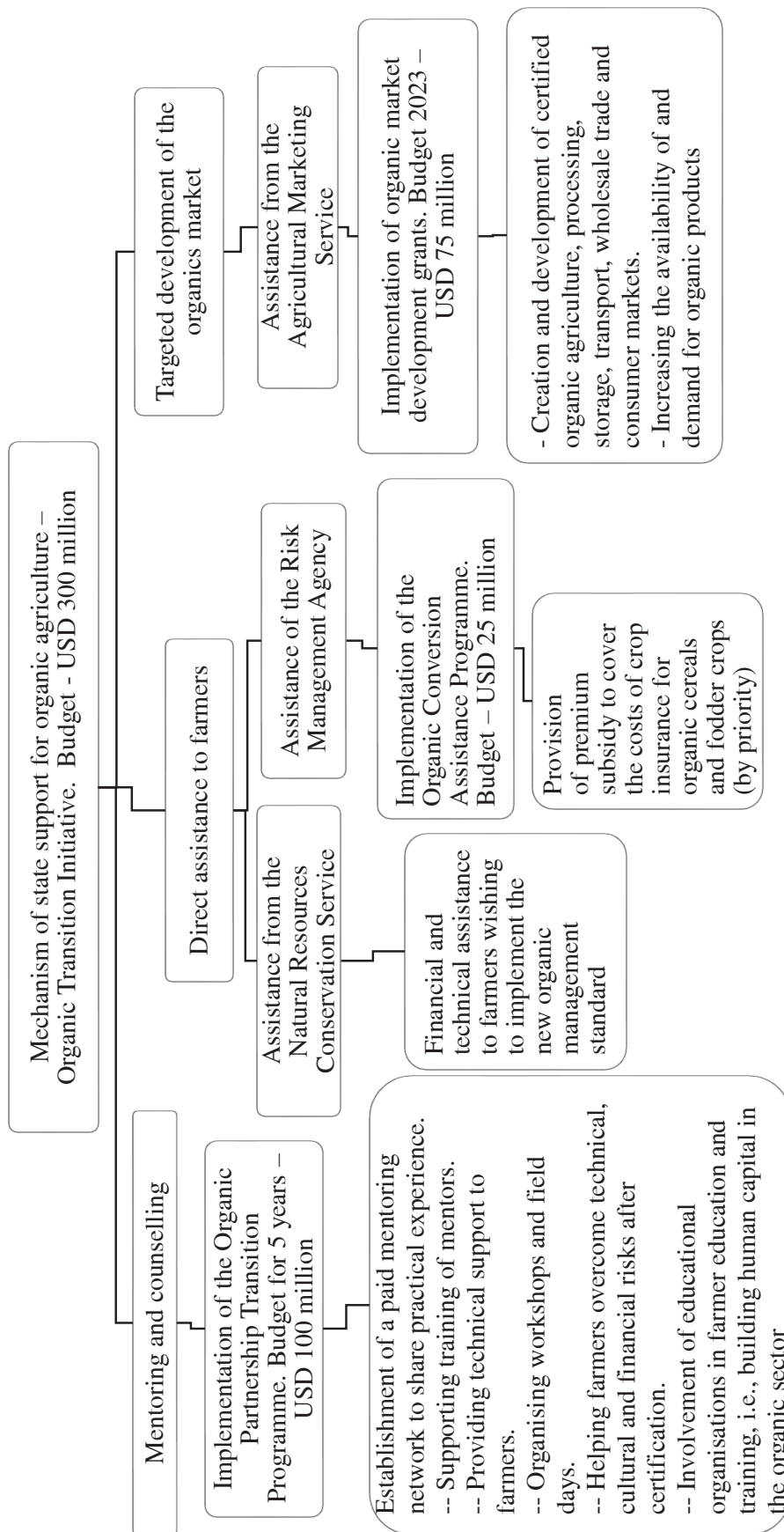


Fig. 2. Mechanism of state regulation of organic agriculture in the USA

Source: compiled by the authors based on the data Organic Transition Initiative – U.S. DEPARTMENT OF AGRICULTURE. URL: <https://www.farmers.gov/your-business/organic/organic-transition-initiative>

of organic grain and forage crop land;

- subsidised premium of 10 percentage points under the “Farmer Income Protection Programme”,¹² which applies to all organically grown crops or certified organic crops.

The system of grants applied in the country, provided within the considered area of production, assumes two directions: a grant for a simplified project “Equipment Only” (implementation period — 2 years, amount — 10–100 thousand USD); a grant for a project on development and expansion of organic processing (3 years, 100–3000 thousand USD).¹³

It should be noted that the U.S. agricultural policy in the field of organic production is characterised by a pronounced targeted nature — the applied tools are aimed specifically at solving problematic issues.

Policies for the development of the organic market in EU countries

Further we will consider the specifics of the development of the organic market in the countries — members of the European Union (hereinafter — the EU), where this production is also a priority and is the basis of the “European Green Deal”.

Farm to Forks strategy, implemented within the framework of the “green course” of The Common Agricultural Policy (CAP) of the EU countries, contains a number of priority areas for the development of the organic market, which in March 2021 were reflected in the Action Plan for Organic Production in the EU¹⁴ (Fig. 3).

In order to identify the impact of the direc-

tion “Promotion of organic consumption” in June 2022, a survey was conducted in the EU countries, which confirmed that 61% of its citizens recognise the logo “organic”,¹⁵ which is 5 percentage points higher than in 2021.

Thus, the work carried out to position organic products gives results, providing a high level of recognisability on the part of potential consumers, providing a certain image for certified producers, which allows to expand the boundaries of a certain niche market for this type of food products.

The Common Agricultural Policy of the European Union (as well as the United States) provides technical assistance to farmers through the Agricultural Knowledge and Innovation Systems (AKIS) programme, which guarantees advisory services through the exchange of information on best practices and the diversity of innovations in organic production.¹⁶

As a result of these measures, by the end of 2021, the EU will have increased sales of organic products to € 46.7 billion, just € 1.9 billion (or 3.91%) behind the US. As a consequence, the average per capita consumption of such products is growing. In particular, in Switzerland by the end of 2021, their sales rose by 1.67%, in Luxembourg — 9.82%.¹⁷

In 2021–2022, the European Commission foresaw an incentive of € 50 million/year for the increase in the area under organic farming and agriculture.¹⁸ Also in the framework of the “green course” EU countries are implementing such di-

¹² Transitional and Organic Grower Assistance Program. U.S. Department of Agriculture. URL: <https://www.farmers.gov/your-business/organic/organic-transition-initiative/toga#eligible-organic-grain-and-feed-crops>

¹³ Organic Market Development Grant. U.S. Department of Agriculture. URL: <https://www.ams.usda.gov/services/grants/omdg>

¹⁴ Action plan for organic production in the EU. URL: https://agriculture.ec.europa.eu/farming/organic-farming/organic-action-plan_en

¹⁵ Action plan for the development of organic production in the EU. What has been achieved so far? URL: https://agriculture.ec.europa.eu/system/files/2023-09/organic-action-plan-report-sept23_en.pdf

¹⁶ EU Organic Day: Highlighting excellence across the organic value chain through the second EU Organic Awards. URL: https://agriculture.ec.europa.eu/news/eu-organic-day-highlighting-excellence-across-organic-value-chain-through-second-eu-organic-awards-2023-09-25_en

¹⁷ Yearbook “The World of Organic Agriculture”: 2000–2023. URL: <https://www.organic-world.net/yearbook.html>

¹⁸ Implementation of the Organic action plan for the development of organic production in the EU: what has been achieved so far? URL: https://agriculture.ec.europa.eu/system/files/2023-09/organic-action-plan-report-sept23_en.pdf

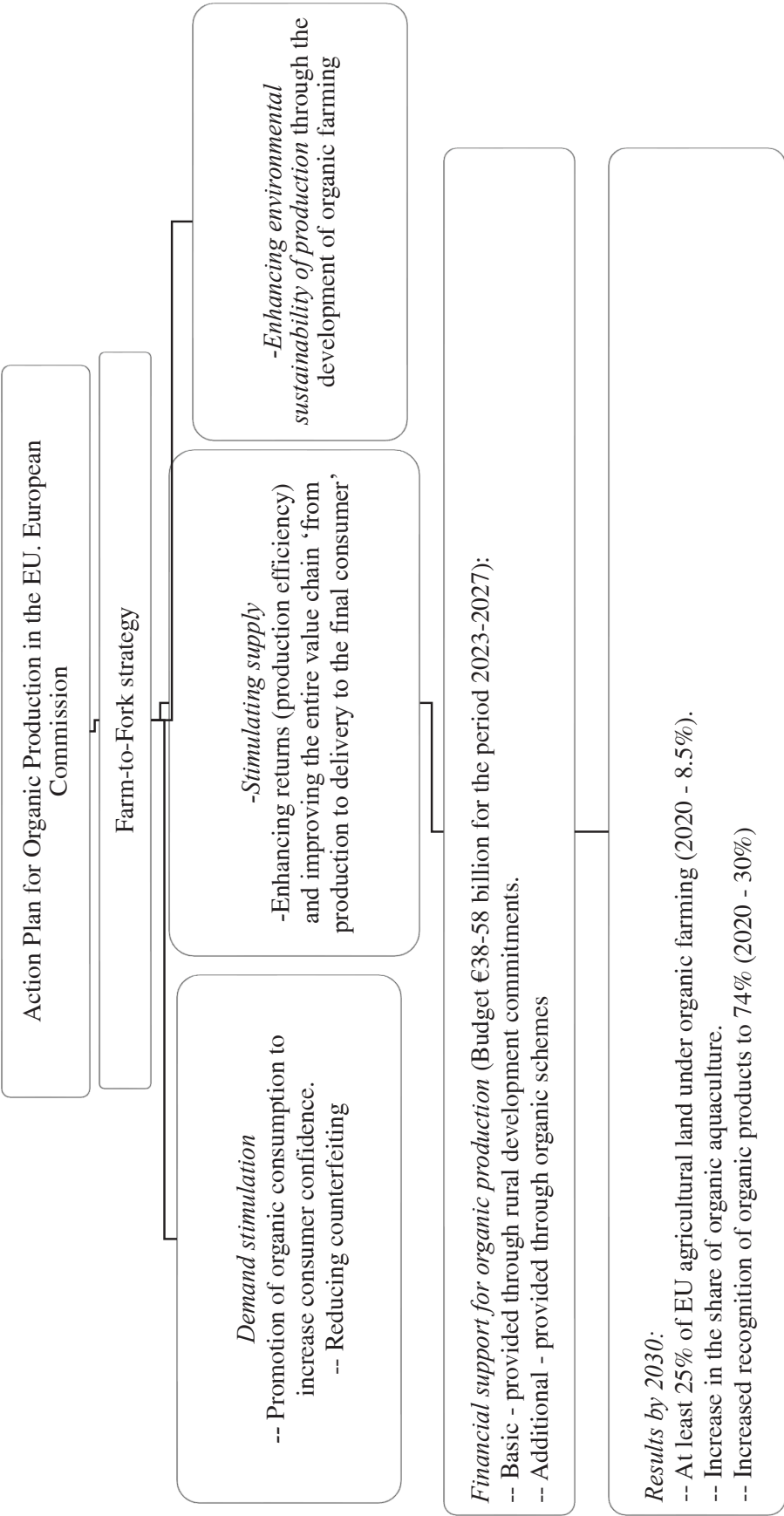


Fig. 3. Mechanism of state regulation of organic agriculture in the EU

Source: compiled by the authors based on the data Action plan for organic production in the EU. URL: https://agriculture.ec.europa.eu/farming/organic-farming/organic-action-plan_en

rection as “Improving the value chain in the field of organic production”, which uses an incentive mechanism aimed at improving the image of organic producers (EU Prize for Excellence in Organic Production).

In September 2023, Brussels (Belgium) hosted the “EU Organic Day”¹⁹ and the second award ceremony for several categories, such as: “Best Organic Seller” and “Best Organic Region”. The German company Gut Wulksfelde, a producer and distributor with its own bakery and restaurant, won in the first category. In the second, the Burgenland region [Austria], which is implementing a strategy aimed at turning 50 per cent of all land in the region into organic farming and expanding its organic distribution network, including to regional canteens, cafés, and schools, was recognised as the leader of the competition.

Since the regulations in the US and EU were adopted in 2021–2022, it is currently difficult to analyse the impact of these mechanisms in more detail, but by the end of 2021, these countries have already seen an increase in both sales and average per capita consumption of organic products. Therefore, this practice can already be considered a success.

Russia: prospects for development of the organic agriculture segment

Russia is also on the way to the formation of organic agriculture. In conditions when “economic sanctions from the European Union and the United States, changed geo-economic situation, forced lockdowns caused by the COVID-19 pandemic, inevitably affect all spheres of the Russian economy”, including the development of the domestic market of organic food [11], at the federal level steps are taken to regulate organic production. They include the

following types of state support of agricultural producers, including those engaged in organic production:

- assistance in covering the costs of certification of products on foreign markets;
- assistance in covering the costs of transporting agricultural products and providing favourable tariffs for their transportation;
- assistance in covering the direct costs of creating (modernising) agro-industrial complex facilities, including those used in the processing of agricultural products;
- preferential lending and leasing;
- subsidising the promotion of products on foreign markets.

In 2020, the Federal Law “On Organic Products and Amendments to Certain Legislative Acts of the Russian Federation” came into force,²⁰ which served as an incentive to support the organic segment of agriculture at the level of constituent entities of the Russian Federation. In particular, at the regional level the following practices are implemented:

- subsidising the leasing and purchase of agricultural machinery;
- subsidising certification, part of the costs of organic production and 50% of the costs of biological remedies, veterinary medicines and feed additives approved for use in organic production;
- hectare support in crop production and dairy cattle breeding (per 1 litre of milk) during the transition period.

In addition, the initiative to support small and medium-sized businesses was launched by the Autonomous Non-Commercial Organization “Russian Quality System”, which provides enterprises producing organic products with a privilege in the certification process.²¹

¹⁹ EU Organic Day: Highlighting excellence across the organic value chain through the second EU Organic Awards. URL: https://agriculture.ec.europa.eu/news/eu-organic-day-highlighting-excellence-across-organic-value-chain-through-second-eu-organic-awards-2023-09-25_en

²⁰ Federal Law of 03.08.2018 No. 280-FL (ed. 29.12.2022) “On Organic Products and on Amendments to Certain Legislative Acts of the Russian Federation”. URL: <https://www.zakonrf.info/doc-35382364/?ysclid=ltzgcgm377984957>

²¹ Order of the Government of the Russian Federation of 04.07.2023 № 1788-o “On Approval of the Strategy for the Development of Organic Production in the Russian Federation until 2030”. URL:

In July 2023, the “Strategy for the Development of Organic Production in the Russian Federation until 2030” was added to the existing measures,²² which forms the general mechanism of state regulation of the development of this segment of agriculture (Fig. 4).

Note that the Government of the Russian Federation, in addition to economic support measures, provides a wide range of consulting services, etc. Leading agrarian universities of Russia in the course of their scientific activities implement projects that contribute to the development of organic production in different climatic zones, and project the results obtained on real projects, while using elements of mentorship.

Today, food industry enterprises are actively involved in the sphere of organic production, which allows to significantly expand the range of “organic” products, opens new opportunities for the development of the domestic market for these products and considering the prospects of entering the international level.

The above comparative analysis of the practice of state regulation of organic agriculture allowed us to conclude that there is a need for more detailed elaboration of the directions of development of the latter both at the level of the country and its subjects through the implementation of special programmes, for example, stimulating the development of individual sub-sectors (organic dairy farming).

We consider it appropriate to recommend additional ways and tools that form a more holistic mechanism of state regulation of the development of organic agriculture in Russia (Fig. 5).

<https://sudact.ru/law/rasporiazhenie-pravitelstva-rf-ot-04072023-n-1788-r/strategiia-razvitiia-proizvodstva-organicheskoi-produktsii/ii/9/>

²² Order of the Government of the Russian Federation of 04.07.2023 № 1788-r “On Approval of the Strategy for the Development of Organic Production in the Russian Federation until 2030”. URL: <https://sudact.ru/law/rasporiazhenie-pravitelstva-rf-ot-04072023-n-1788-r/strategiia-razvitiia-proizvodstva-organicheskoi-produktsii/ii/9/>

CONCLUSIONS

The scientific novelty of the study lies in the identification of distinctive features of the mechanism of state regulation of organic production, characteristic of the policy of the United States, the EU and Russia, as well as recommendations of additional directions and tools that allow to form an integral system of state regulation of this sector of the economy in Russia.

1. The study of trends in the development of the global organic market has allowed us to conclude that its leaders are characterised by their own dynamics of key indicators, and as a result, each country (or their association) builds its own mechanisms of state support for this segment of the agricultural industry.

2. During the analysis of the main programmes and strategies in the sphere of organic production adopted in the USA, the European Union and Russia, the authors of the study identified priority areas of its development, as well as common and distinctive characteristics of the mechanism of state support.

The common blocks are the improvement of certification of organic land and production, the formation of a system of consulting in the field of certification, training and dissemination of best practices and information on innovation, technical and financial (investment) assistance to producers. At the same time, it is possible to identify several differences in the policies implemented by different countries.

In the USA, emphasis is placed on mentoring and human capital formation, subsidising part of the cost of crop insurance for organic grain and feed crops, as well as on the expansion of grant activities, which is due to the decreasing number of farms that prefer to work in organic production. Thus, the activation of citizens potentially interested in this activity is the main goal of the mechanism of state support.

In the EU, the emphasis is on the work of the media and advertising companies to increase con-

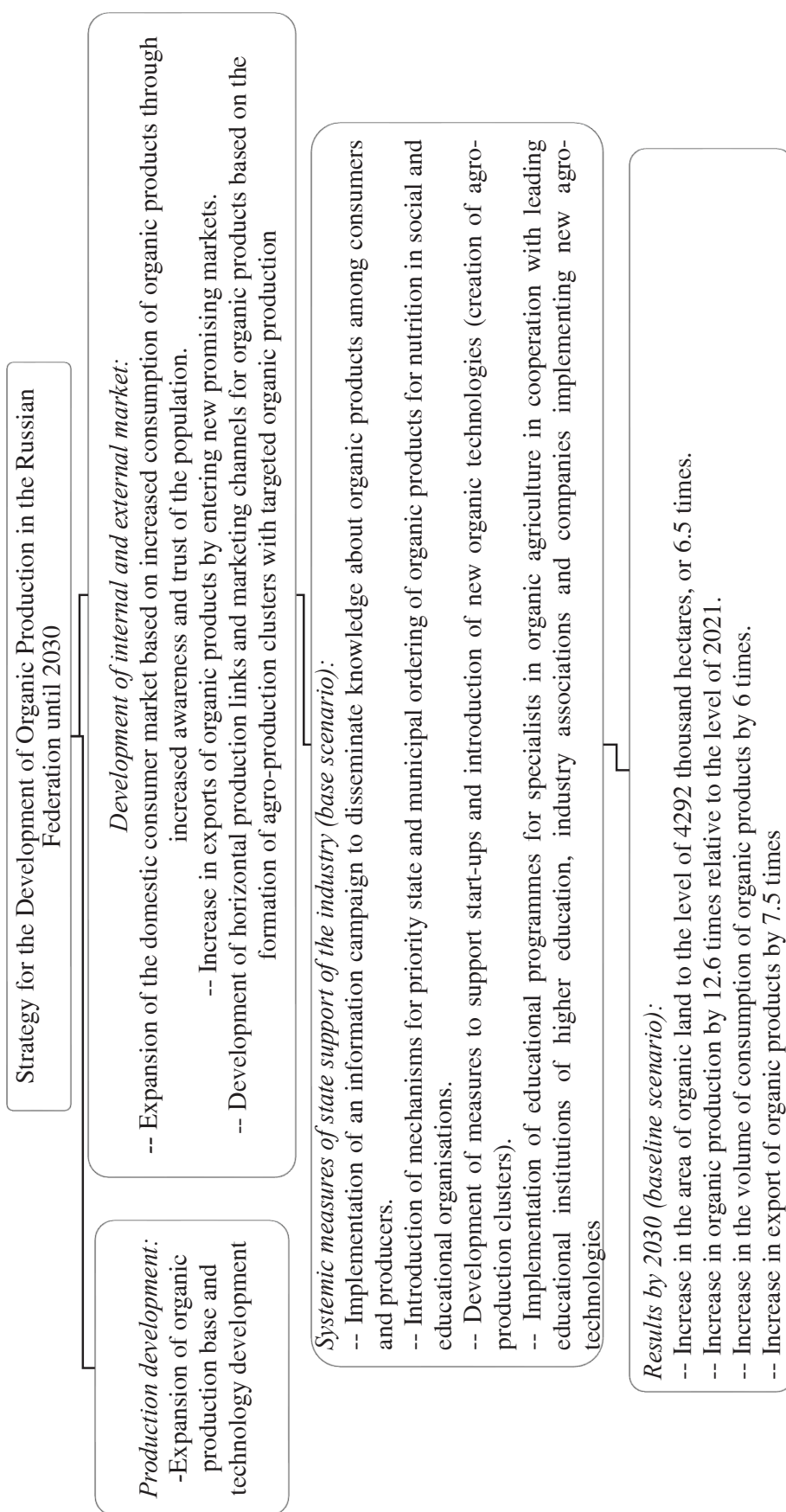


Fig. 4. Mechanism of state regulation of organic agriculture in Russia

Source: compiled by the authors on the basis URL: <https://sudact.ru/law/rasportiazhenie-pravitelstva-rf-ot-04072023-n-1788-r/strategiya-razvitiia-proizvodstva-organicheskoi-produktsii/ii/9/>

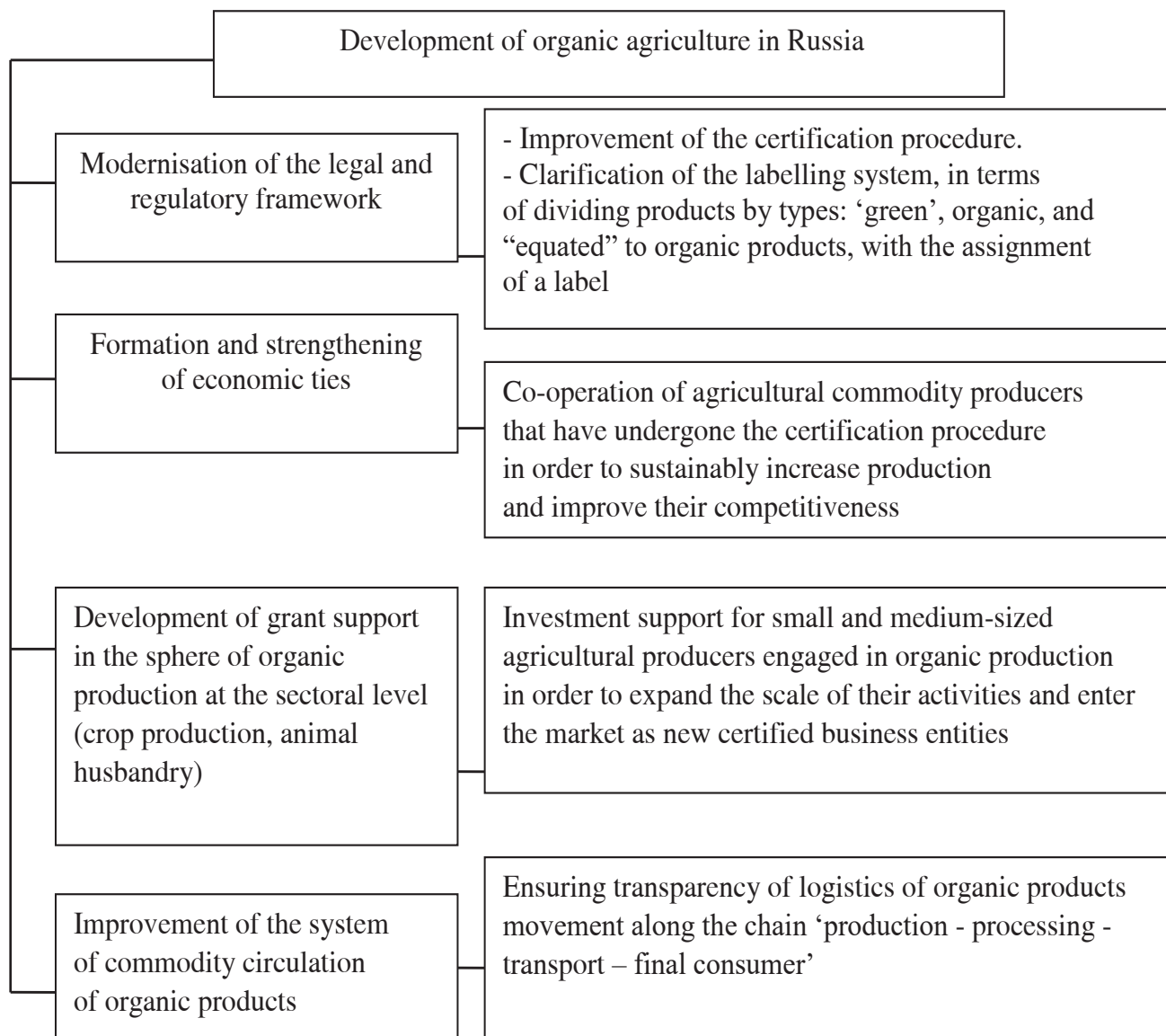


Fig. 5. Additional instruments of state regulation of organic agriculture in Russia

Source: compiled by the authors.

sumer confidence in organic products; in addition, such a measure as non-financial bonuses (awards) is used to promote the image of organic producers.

3. In Russia, by the end of 2021, there were already significant results of the implementation of the mechanism of state support for organic production and development of the organic market, as evidenced by the increase in the area of organic land, and the growth of turnover of relevant products.

Perspective directions outlined in the new “Strategy for the development of organic production in the Russian Federation until 2030” are partly similar to those envisaged in the programmes of the USA and the European Union — these are subsidies, knowledge projection, technological equipment of organic production.

A distinctive lever is the “state order of organic products for nutrition in social and educational organisations”, the purpose of which is not only

to ensure guaranteed production, but also to position the state's interests in preserving the health of the younger generation.

4. Comparative analysis of mechanisms of state regulation of the development of organic agriculture and the market of organic products allowed us to propose a number of additional tools that can be applied at the level of sub-sectors (e.g., vegetable production or dairy farming) and constituent entities of the Russian Federation seeking sustainable development of the regional economy.

The results of the study suggest that a more detailed analysis of foreign and domestic experience in the development of organic agriculture, evaluation of the effectiveness of the adopted mechanism of state support are critical for the development of tactical directions of development of this segment, both at the level of the state as a whole, and at the level of constituent entities of the Russian Federation.

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Conflicts of Interest Statement: The authors declare that there is no conflict of interest.

The article was submitted on 10.04.2024; revised on 27.05.2024 and accepted for publication on 16.08.2024. The authors have read and approved the final version of the manuscript.