

Strategic Cooperation of Ukrainian Industrial Enterprises to Create Competitive Advantages in the World Market

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Abstract: Competitive advantages in the market can be accumulated both with the use of the mechanism of cooperation, and as a result of coordination in the interregional sphere. The relevance of the study is determined primarily by the fact that cooperation between organisations allows to increase competitiveness in the foreign market. However, this gives rise to a contradiction that determines that cooperation between companies is possible only if the conglomerate or certain entities own controlling shares. With that, companies should not only constitute holding structures, but primarily be co-operators in the production cycle. The novelty of the study is determined by the fact that strategic cooperation is proposed to be considered not only as a set of practical actions on the part of the state or regulatory structures, but also of consulting bodies. It is proposed to use the mechanisms of strategic cooperation based on mutual conditionality of interests and security of budgetary mechanisms that allow for practical activities. The authors also admit the possibility of the use of public-private partnership mechanisms. The practical significance of the study is determined by the fact that each of the participants in the organisation of strategic management of enterprises can use not only strategic, but financial and systemic interaction mechanisms to form.

Keywords: Local government system, agricultural development, sectoral structure, strategy formation, resource provision.

INTRODUCTION

The introduction of budgeting in the system of reproduction and development of the resource potential of agricultural production as a key element in the development and the main budget-filling resource for Ukraine will optimise the interaction of the "regions-centre", ensure adaptability and overall orientation of the planning system for macroeconomic and regional development, and take into consideration the risks of the negative impact of external environment and changes in the economic situation in the country and regions, to balance the system of indicators of the efficiency of industrial and economic and financial activities for enterprises of all sectors of agricultural production, to reorient the work of managing agricultural development not only to finance "events", but to ensure the synergistic effect created in agricultural production (Zhou *et al.* 2008; Fulford 2013; Arnold *et al.* 2012; Arnold *et al.* 2015; Rabinskiy and Tushavina 2019; Tashpulatov *et al.* 2020).

Nowadays, agriculture has become one of the basic sectors for the national economy, and for a

considerable number of regions, it became budget-forming. However, it should be noted that the raw material share prevails in the structure of agricultural exports, despite the fact that the regional economy is becoming increasingly import-dependent and losing its competitive position (Wong *et al.* 2009; Ai *et al.* 2012; Parnell 2015; Sorokin and Novikov 2019). Furthermore, in most regions, economically active enterprises in the agro-industrial complex are gradually concentrated in regional centres and large cities, and deepen the differentiation of the development of administrative-territorial units. Small business develops primarily in trade, services, and other non-resource-intensive and quick-pay types of economic activity (Sanchis-Palacio *et al.* 2013; Kostenko 2019; Tashpulatov *et al.* 2018a; Stepanchuk *et al.* 2017). The manufacturing sector is gradually being replaced by trade and the financial sector.

This situation is caused by the lack of an integrated approach to planning the balanced development of specific territories as components of the macroeconomic system, the absence of clearly defined priorities for the development of agricultural enterprises, the incentive to obtain a synergistic effect from industrial and economic activities, the uncertainty of the role and place of enterprises in intra-regional

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exchange, inter-industry relations as inside region, and with the external environment (Weitzner and Darroch 2010; Krasilshchikov *et al.* 2014; Simon *et al.* 2014). These tasks can be solved by activating the activities of state agro-industrial development management bodies in regions and districts by means of active state support measures to coordinate the activities of agricultural market participants by balancing supply and demand on it and encouraging farmers to optimise the use of enterprise resource potential in order to obtain a synergistic effect from optimising the use of available enterprise resources (Brignall and Ballantine 2004; Arnold *et al.* 2011; Amberg and McGaughey 2019; Akbarov *et al.* 2018; Bodryshev *et al.* 2019; Smiyan *et al.* 2020; Talaspayeva *et al.* 2017).

With this in mind, the requirements for the quality of managerial decisions made at all levels of the country's socio-economic system management are increasing, information and analytical support of the head – the decision maker – becomes of particular importance (Agarwal and Ansell 2016; Archer-Brown and Kietzmann 2018; Rozhnova 2019). Indeed, during the development of enterprise development scenarios, it is necessary to systematise the knowledge of experts, identify potential threats and development opportunities, determine the goals and possible contradictions in their definition, criteria, object and subject of research, conduct a study of the features of a complex system and environmental factors, and most importantly, realise the role and place of the enterprise in the regional economy (Takeda and Helms 2007; Elsayed *et al.* 2011; Pan *et al.* 2016; Anamova 2013; Boichuk 2019; Tashpulatov *et al.* 2018b).

MATERIALS AND METHODS

The formation of a full cycle of agro-industrial production in the regions creates the prerequisites for increasing its efficiency precisely by optimising industry proportions through a controlled and scientifically-based location of enterprises, ensuring the priority development of “growth points” for a particular locality. Such an approach, as the calculations proven, will increase the efficiency of the entire economic system of the region even without a significant increase in investment (Fenton-O’Creedy and Wood 2007). This problem belongs to the class of weakly structured problems of complex systems, the solution of which requires the study of the system both from the standpoint of a single whole, and highlighting and deepening research on its structural elements (Michaud and Tello-Rozas 2020; Astapov *et al.* 2019a;

Kucheryavenko and Smychok 2019; Sabirova *et al.* 2018a; Sabirova *et al.* 2018b).

The main purpose of such a study is to identify the components of the system that are most important for this study, establish the nature of the relations between them, determine which particular connections and components of the system are most important for solving the tasks, and the presence or absence of which will impede or even hinder the achievement of goals or even the system functioning. The solution to these issues is constrained by the lack of a complete information background for research, which is associated with the specific features of collecting and processing statistical information at enterprises (Astapov *et al.* 2019b; Bogaevskaya *et al.* 2020; Bulychev and Rabinskiy 2019; Bulychev *et al.* 2019; Starikov *et al.* 2011).

A necessary step to ensure the effective use of the resource potential of agricultural enterprises is the coordination of the aims of the executive authorities of the state and regional levels, local self-government, and the priorities of business entities. Therefore, in the research process, it is necessary to clearly outline the measures defined for implementation at the regional level, the prospects for the development of the agricultural industry at large, as such, will exert an external influence on the enterprise as a production and economic system. To solve this issue, the authors proposed the following methodology, which will be carried out in several stages (Figure 1).

Stage 1. Study of the state and structure of the existing resource potential of agricultural enterprises in a region (district).

Stage 2. Identification of priority areas for the development of agricultural production in the oblast districts, in the region, and for individual territorial communities.

Stage 3. Determination of the validity of the need for additional resources, opportunities and sources of their attraction both within the region and from the outside.

Stage 4. Identification of priority areas and territories for attracting investment resources and state support for updating (increasing) the resource potential (its individual components) in accordance with the applications of enterprises and within the framework of investment proposals, state target programs and grants.

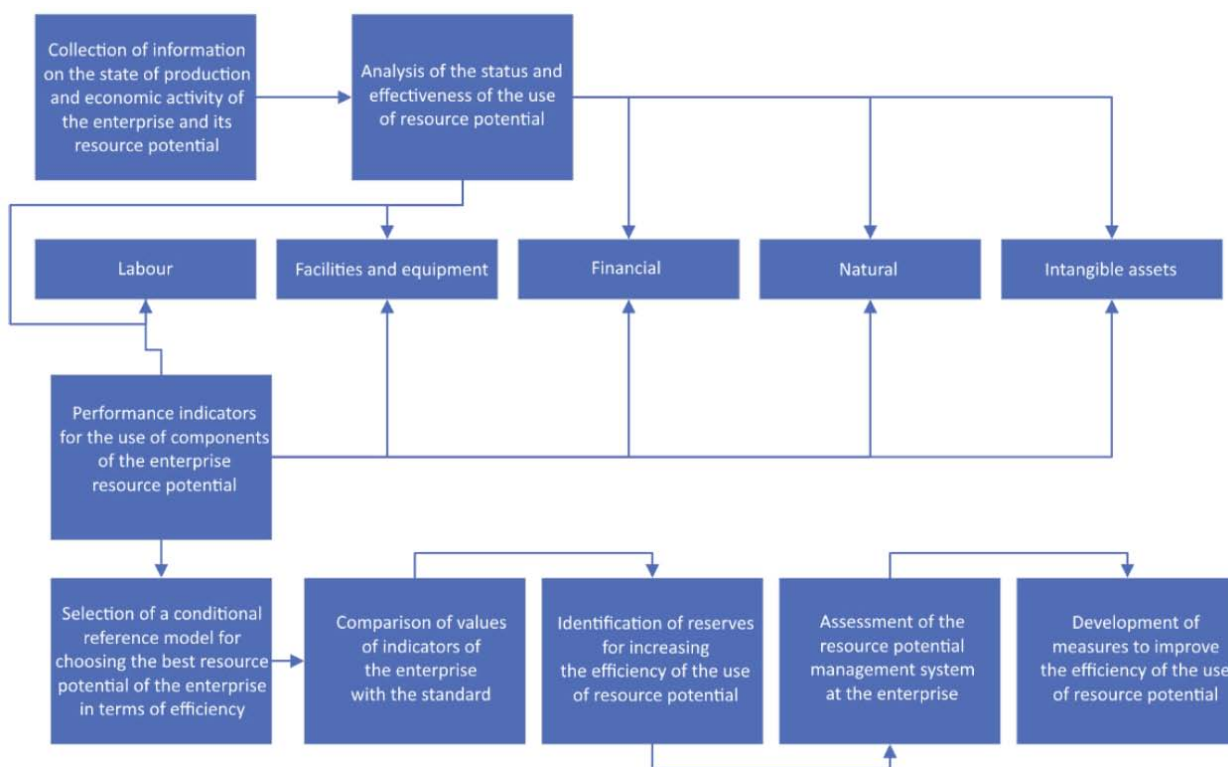


Figure 1: Relationship between the detection of financial crimes in banks and other elements of the fight against it.

Stage 5. An analysis of the need to attract specific types of resources or funds for their acquisition will be carried out based on proposals and projects developed by enterprises submitted to government bodies.

Stage 6. Assessing and forecasting the effectiveness of the measures proposed by enterprises, their feasibility both for the enterprise and for the region at large, the adoption of an appropriate management decision.

The introduction of such an approach to determining the prospects for developing the resource potential of agricultural enterprises at the mesoscale, given that structural transformations in the national economy are continuing, requires the use of innovative methods and research tools in the decision-making process (Shumylo *et al.* 2019; Timkina *et al.* 2019; Tugarova 2019; Pylypenko 2018; Samarin *et al.* 2019). To solve such a complex, poorly formalised issue, it is necessary to use the methodology of system analysis, decision theory, data mining. Their application will allow to consider both the retrospective and the current situation in the regional economy, given that they form an integral part of the macroeconomic system, features and possible options for the development of the situation in the regions under the influence of future changes, to ensure compliance with the national concept of the development of the national economy.

This will allow to fully and impartially evaluate the state and dynamics of development of the enterprise under study, explore the factors affecting its development, take into consideration the possible risks and develop an action strategy. Action strategies should be developed at all levels of the national economy and coordinated among themselves within the framework of common programs and development strategies.

RESULTS AND DISCUSSION

Reform of the system of local self-government and decentralisation pose new challenges for the regional level, especially in rural areas, where the interests of the state, territorial communities, enterprises, households, etc. intersect and require coordination. Elements of the regional socio-economic system interact with each other and other systems due to inter-industry relations, industrial cooperation, trade, inter-budget interaction, etc. Furthermore, the regional level is currently described by more dynamic controlled structural changes, unlike enterprises, whose functioning is often carried out in response to the influence of exogenous factors and mechanisms of market self-organisation (Barashkin and Samarin 2005; Bieliatynskyi *et al.* 2018; Dobryanskiy *et al.* 2019; Gorbas *et al.* 2015; Pylypenko 2020; Kosinova 2019).

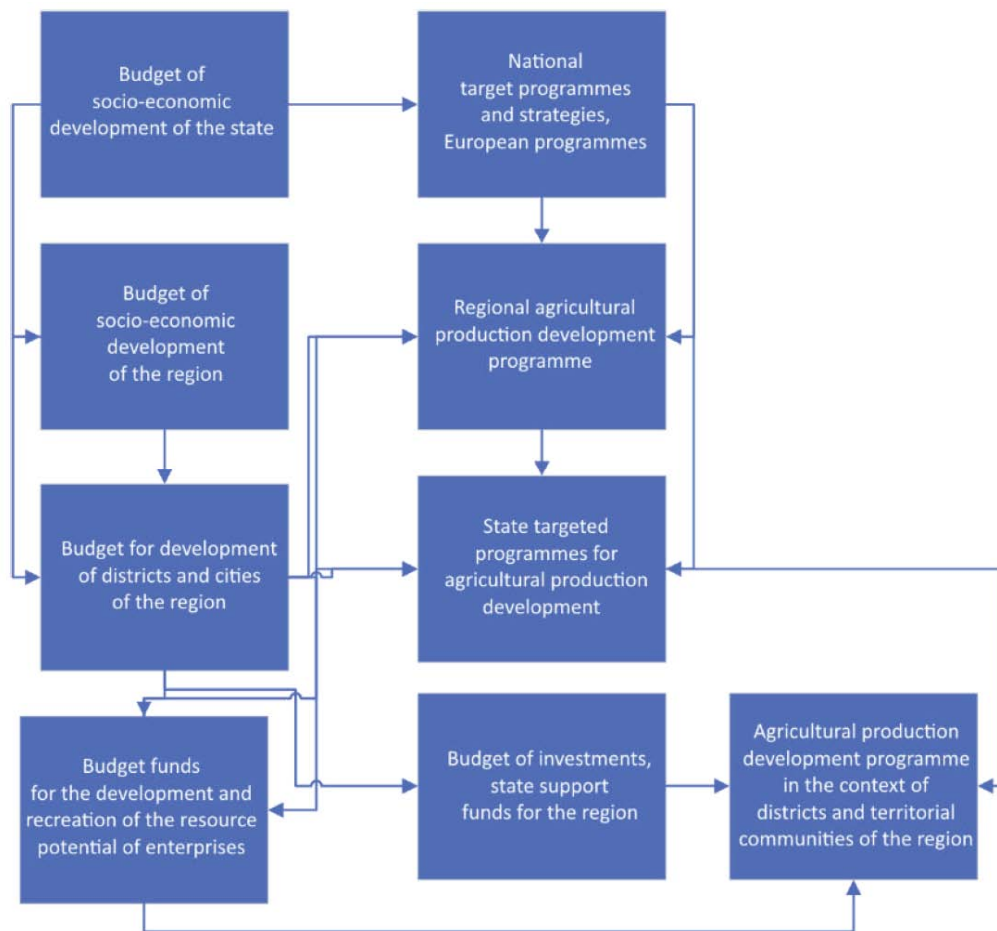


Figure 2: The scheme of systemic interaction upon introducing budgeting for reproduction and development of the resource potential of agricultural enterprises.

Therefore, the procedure for the formation of the regional development strategy and state sectoral programs should be supplemented with such sections as the strategic plan for the development of the region and its agro-industrial production, the scenario, the justification of the directions, volumes and sources of financing the reproduction of the resource potential of enterprises and the region in the context of the development of the country's agricultural sector. And to prevent excessive and unreasonable expenses, in our opinion, it is necessary to introduce a budgeting system for financing reproduction and development of the resource potential of enterprises, which is consistent between all levels of the national economy (Figure 2).

The enterprise should be considered as an integral component of the regional economy, an important participant in rural society, the main source of development of the territorial community, the key to its social welfare (Grinyaev *et al.* 2019; Kuprikov and Rabinskiy 2018; Vavzhenchuk 2019). Taking this into consideration, the authors proposed a scheme of the

organisational and economic mechanism for the formation of a strategy for developing the resource potential of regional enterprises (Figure 3).

As is evident from Figure 3, the formation of a strategy for the development of the resource potential of an agricultural enterprise requires a clear interaction between all the links in the chain of management of the national economy. It is also necessary to foresee possible changes in both the economy and the socio-political situation, to factor in possible risks and their consequences. Therefore, a scenario approach and a system prediction methodology are often used to develop strategies. The advantages of using such approaches are their flexibility and adaptability, the ability to predict the behaviour of the system in various scenarios (Bespalko 2019; Formalev *et al.* 2019a; Koban 2019; Formalev *et al.* 2019b; Hladky 2019; Mansurova *et al.* 2018).

Summarising the results of studies of the state and prospects of increasing the efficiency of the use of the resource potential of agricultural enterprises, the

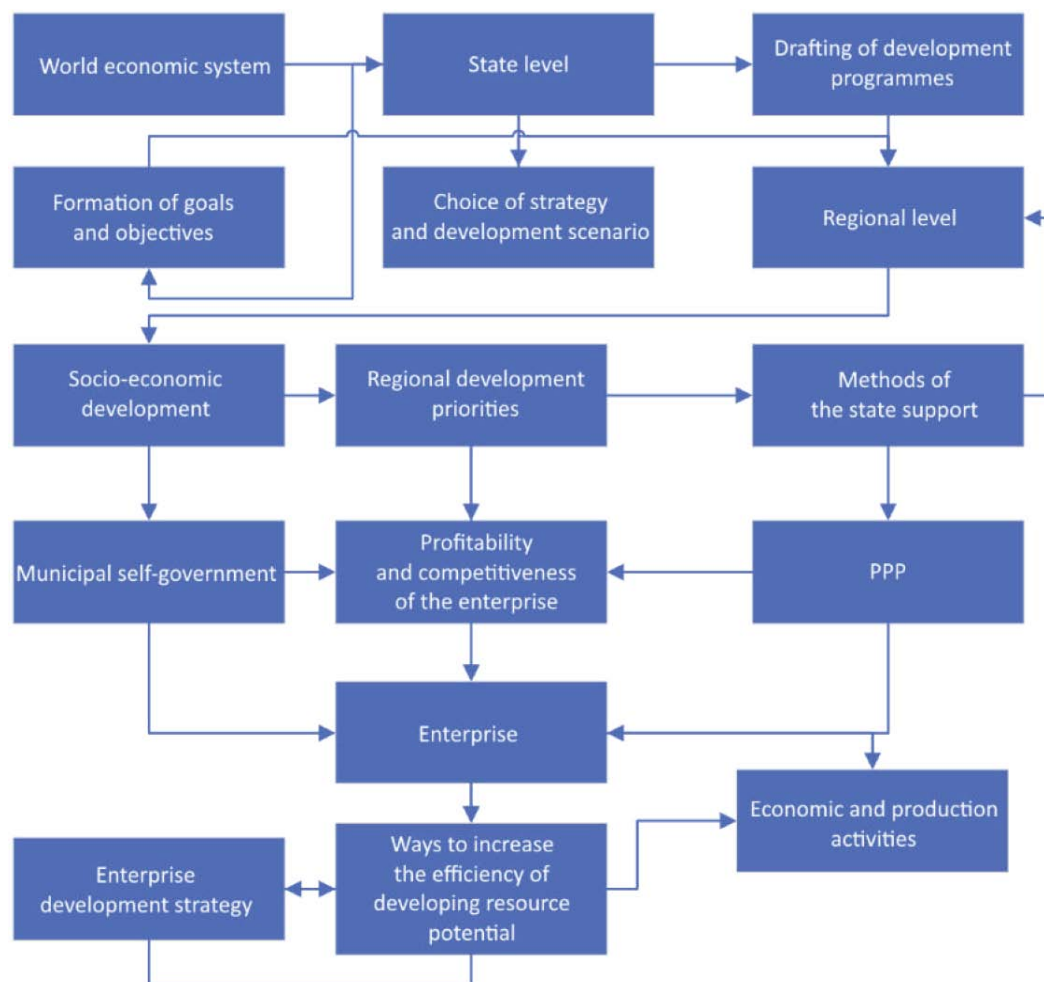


Figure 3: Organisational and economic mechanism of forming a strategy for developing the resource potential of enterprises in the region.

authors proposed a methodology for solving this issue. To begin the said solution, it is necessary to develop a scenario for the study of factors affecting the efficient use of the resource potential of agricultural enterprises at the regional and micro levels. Research is proposed to be carried out, sequentially considering tasks such as:

- to study the state and development tendencies of the resource potential of agricultural enterprises at various levels of the national economy. To identify typical features and differences in the prospects for the efficient use of the resource potential of agricultural enterprises. Using the methods of cluster analysis, to identify typical groups of enterprises (according to the needs of the regions) based on the signs of efficient use of resource potential;
- for groups of typical enterprises, to select reference enterprises that are typical representatives of groups according to the nature of the use of the resource potential of agricultural enterprises;
- to conduct factor analysis and probabilistic modelling to identify causality between factors affecting the efficiency of the use of the resource potential of enterprises;
- to identify factors affecting the efficiency of the use of the resource potential of enterprises;
- to build a scoring model to assess the possibilities of efficient (inefficient) use of the resource potential of agricultural enterprises;
- to predict the prospects for ensuring the efficient use of the resource potential of specific enterprises under the influence of various groups of factors, while determining which of the components of the resource potential of the enterprise have the greatest impact on the efficiency of the enterprise.

During the study of the prospects for increasing the efficiency of the use of the enterprise's resource potential, performed with the help of scenario analysis, a set of factors was formed, the influence of which will be most significant for the enterprise. Such factors are the optimisation of the regional level of government and the amount of investment resources that will be used to develop agricultural production, locate production in the regions, the availability of individual financial resources of enterprises for updating their facilities and equipment, the level of implementation of innovative technologies in the region. It is difficult to predict the behaviour and magnitude of these factors for the future, but it can be assumed that they can be in two states:

- the efficiency of the use of the resource potential of agricultural enterprises will be high;
- the regional level of government will have the authority to ensure the autonomy of managerial decisions in the direction of state support funds or management will be fully centralised (Naumenkova *et al.* 2020; Yulin *et al.* 2019).

The methodology, according to which the possible states in which the selected factors for increasing the efficiency of the use of the resource potential of the enterprise can be found, was used to further develop scenarios for the development of factors for the possible development of events. Having used the means of morphological analysis, a set of all possible configurations of states of factors of the development of the resource potential of agricultural enterprises in the region was formed. Possible configurations of the space of factors forming the corresponding scenarios are presented in Table 1.

The method of expert assessments was used to establish the influence of the state configurations of investment activity factors on the identified factors. Experts must determine the degree of influence of factors on those factors that affect the development of the investment activity system on a scale that verbally describes the degree of influence of factors. The scale has the form [-3; -2; -1; 0; 1; 2; 3]. The values on the scale correspond to the characteristics of the impact: -3 – considerable negative impact, -2 – strong negative impact, -1 – slight negative impact, 0 – no effect, 1 –

Table 1: Configurations of the Space of Factors Forming Scenarios for Increasing the Efficiency of the use of the Resource Potential of Agricultural Enterprises in the Region

Scenario	Scenario content
C1. Effective use of funds to upgrade productive capacity.	The amount of funds allocated to the economy of the region, including agro-industrial production, is sufficient for reproduction, the regional level of government has the authority to ensure autonomous decision-making to support priority sectors and enterprises
C2. Dependence on the centre.	The volume of funds allocated to agricultural production is sufficient for reproduction, management is fully centralised.
C3. Diversification of resources.	The volume of funds allocated to agricultural production is insufficient for reproduction, the regional level of government has the authority to ensure the autonomy of the adoption of government support for priority innovative projects.
C4. Centralised allocation of funds.	The volume of funds attracted to agricultural production is insufficient for reproduction, the management is fully centralised.

Table 2: Assessment of the Influence of Factors on Key Factors in the Development of the Resource Potential of Agricultural Enterprises in the Region

Factors	Configurations			
	C ₁	C ₂	C ₃	C ₄
Demographic load	-1	0	-2	-3
Wages in agriculture	1	1	1	0
Obsolescence of facilities and equipment of agriculture	-1	-1	-2	-3
The volume of gross regional product achieved in the previous period	2	1	2	1
Profitability of operating activities of agricultural enterprises	3	2	3	1
Production costs	-1	-2	-2	-3
Volume of capital investments	3	2	3	1
Volume of production of major crops	2	1	3	1

weak positive impact, 2 – positive impact, 3 – considerable positive impact. The results of the study of the influence of factors on key factors are presented in Table 2.

Given the current situation in the regional economy, it should be noted that the most likely scenario for the development of the resource potential of agricultural enterprises constitutes a moderate scenario in which the main sources of financing will be dominated by the enterprises' own funds (Polovchenko 2019a; Polovchenko 2019b; Zinchenko 2019). Budget funding will be virtually non-existent. The next step is to develop a budget for attracting investment resources with clearly defined needs and sources of coverage, assessing their possible shortages. Having processed the results of a study of the prospects for the use of the resource potential of agricultural enterprises at the micro level and exploring the same issues of a regional approach, it is proposed to manage the increase in the efficiency of the use of the resource potential of agricultural enterprises according to the scheme (Figure 4).

Integration of enterprises according to the type of cluster structures, in our opinion, should predominantly occur on the initiative of government bodies of agricultural production, since the prerequisite for creating such a formation should be a detailed analysis of the directions and prospects of the enterprise's industrial and economic activity, its industry structure, composition of participants, location of management bodies logistics, etc. Integrated cluster-type structures can also be formed at the initiative of enterprises in a region or group of regions. The difference is the presence in the management of clusters (as part of the cluster council) of representatives of the corresponding executive authorities (Figure 5).

The participation of the state in the formation of clusters in agricultural production, in our opinion, lies primarily in creation of the conditions necessary for the development of cluster member enterprises, in promoting the development of those areas of cluster investment activity that are consistent with state priorities in agricultural policy and food security in relation to the volume of agricultural products, territorial

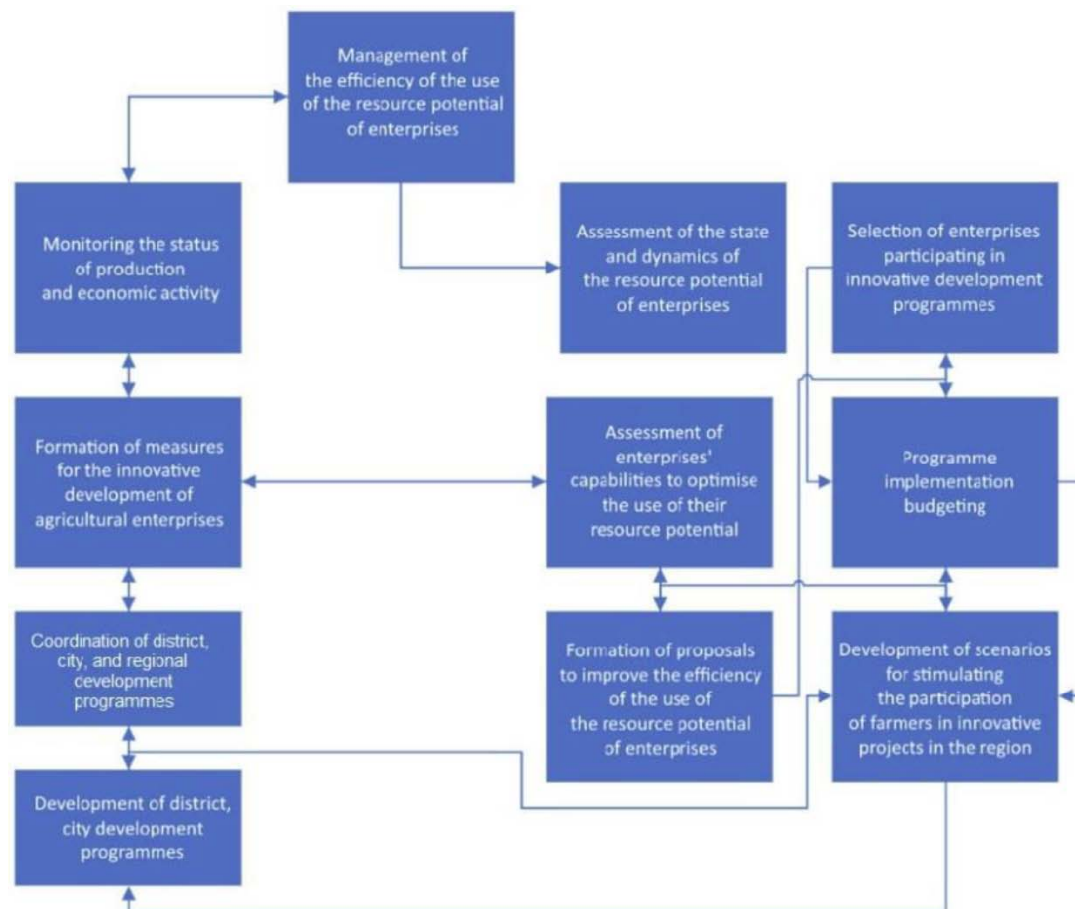


Figure 4: Management scheme for increasing the efficiency of the use of the resource potential of agricultural enterprises at the regional level.

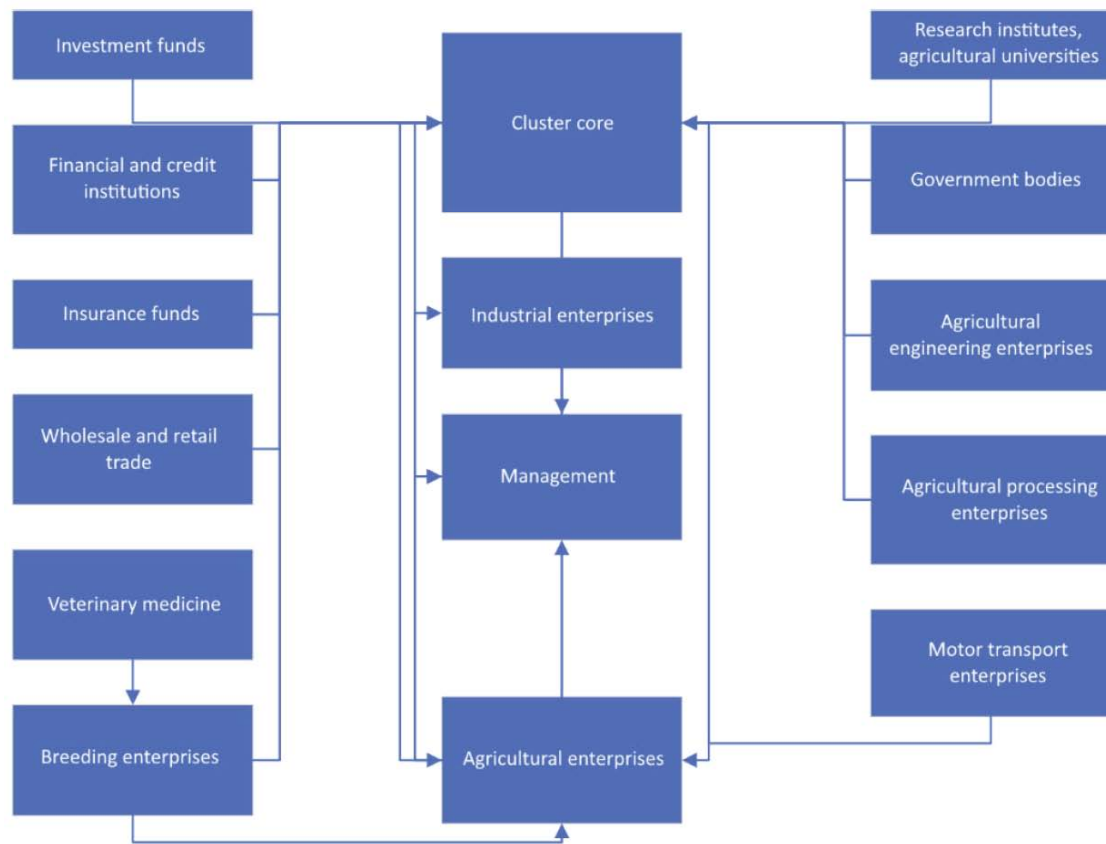


Figure 5: Agro-industrial cluster model.

distribution of production, investment projects, efficient use of the resource potential of enterprises, their innovative development, as well as socio-economic development of territories. To solve these problems, it is necessary to develop appropriate programs at the regional level and recommendations for enterprises that would focus their attention on the advantages of organising cluster development of agricultural production (Baymuratov *et al.* 2018; Polovchenko 2020; Zykova *et al.* 2021).

The formation of directions for the innovative development of enterprises, the development of measures for the effective use of their resource potential, the intensification of investment activities in order to update the facilities and equipment of enterprises, the transition to an innovative method of agricultural production in a cluster approach will be oriented both to the interests of the enterprise and assurance of balanced development of agricultural production in the region. It is the joint efforts of enterprises in the implementation of the production cycle that will provide a synergistic effect due to the interaction of cluster members to ensure the efficient use of their production resources (Berezovskii *et al.* 2015; Prentkovskis *et al.* 2009).

At the regional level, attention is focused on providing information support for the attractiveness of such an organisation of production and the implementation of measures to improve the investment climate, as well as on advisory and legal support for initiatives to create clusters in the region. In case when the initiative to create cluster, education belongs to its potential participants, regional agro-industrial development management bodies, it is necessary to verify the validity of the proposed development strategy and assess the possibility of obtaining the expected effect by all interested parties. If the state initiates the formation of an integrated cluster-type formation, then the agro-industrial production development management bodies should not only develop a business plan, work out a layout scheme for the production of this formation in the regions, develop a programme of government support for the development of such a formation, but also ensure the implementation of several steps aimed at implementing measures to attract enterprises to take part in the integrated formation that is being created, its investment support, creation of conditions for enterprises regarding the effective sharing of all components of the resource potential of cluster

members and the distribution of the benefits received (Pukhkal et al. 2016).

So far, experience in implementing state and regional agricultural development programmes and investment programmes in agro-industrial production indicates the absence of an effective system for managing the development of agro-industrial production. With the cluster organisation of interaction, these issues will be resolved more efficiently, since all cluster members are interested in ensuring the effectiveness of their production activities. The implementation of the cluster approach in enhancing the development of the resource potential of agricultural enterprises will minimise government participation in the financing of enterprise support projects, which will allow to free up budget funds for the development of social programmes.

CONCLUSIONS

With a cluster approach to improve the efficiency of agricultural production, public-private partnerships come to the fore. Such cooperation is beneficial to both the state and the cluster members. The effectiveness of state support funds is significantly increased due to joint investments of cluster members and more efficient management of economic activities, and cluster members are provided with the necessary state support for the implementation of investment projects in the cluster. Furthermore, public-private partnerships can implement significant public investment projects, including those with shared participation of the territorial community. The main advantage of creating cluster structures in agricultural production is that cluster members have greater access to investment resources, as they are more reliable recipients of investments than individual enterprises. Furthermore, this approach allows for the implementation of targeted investment projects adapted to the conditions of a particular territory and are aimed at the uniform development of all cluster members.

The advantage of the use of the cluster approach in managing the development of the resource potential of agricultural enterprises is that the functioning of the agro-industrial cluster simplifies the functioning of enterprises within the cluster, since there is already a certain structure of supply chain, sales, there are the necessary funds, resources, the trust of financial and credit institutions to a certain the cluster, and the process of implementing investment projects to upgrade the facilities and equipment of enterprises,

introduce new technologies, produce new types of products, including organic ones, will be much simpler than under ordinary conditions. Furthermore, the profitability of agricultural production in integrated units is significantly higher than in small enterprises. One of the reasons for this is a more efficient use of the resource potential of the enterprise. The result of the implementation of cluster policy measures at the macro level is the balanced development of agro-industrial sectors, the improvement of the socio-economic development of regions and macroclusters due to the transition from a policy of equalising the socio-economic development of regions to a policy of "sustainable development".

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