



# The role of clusters in the agri-food supply chain - selected legal issues

Rola klastrów w łańcuchu dostaw produktów rolno-żywnościowych - wybrane zagadnienia prawne

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#### Abstract

This paper addresses some topics related to the functioning of the agri-food supply chain. When properly structured, the chain tends to stabilize and allows to safeguard the profitability of agricultural activities. Agri-food clusters can play a particular role in this context. Therefore, the purpose of this paper is to assess the legal solutions implemented at Union and national levels which directly or indirectly affect the way the clusters exist and function. Clusters were concluded to be a tool for the agricultural policy in place. They should be viewed as a collaboration method between operators active at different stages of the supply chain, and as a way to develop the chain's individual links (agricultural producers, enterprises etc.). Since they can be freely established and are eligible for state support in a friendly legal environment, they are an enabler of collaborative networks and economic relationships.

Keywords: food supply chain, cluster, innovations, strategic plan

#### Resumen

Este artículo aborda algunos temas relacionados con el funcionamiento de la cadena de suministro agroalimentaria. Cuando está debidamente estructurada, la cadena tiende a estabilizarse y permite salvaguardar la rentabilidad de las actividades agrícolas. Los clústeres agroalimentarios pueden desempeñar un papel particular en este contexto. Por lo tanto, el propósito de este documento es evaluar las soluciones legales implementadas a nivel nacional y de la Unión que afectan directa o indirectamente la forma en que existen y funcionan los clústeres. Se concluyó que los clústeres son una herramienta para la política agrícola vigente. Deben verse como un método de colaboración entre operadores activos en diferentes etapas de la cadena de suministro y como una forma de desarrollar los eslabones individuales de la cadena (productores agrícolas, empresas, etc.). Dado que pueden establecerse libremente y son elegibles para el apoyo estatal en un entorno legal amigable, son un facilitador de redes de colaboración y relaciones económicas.

Palabras clave: cadena de suministro de alimentos, clúster, innovaciones, plan estratégico

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## SUMMARY

I. Introduction. II. Concept of agri-food cluster. III. Clusters in the Common Agricultural Policy. IV. Legal organization of the functioning of agri-food clusters in Poland. V. Conclusions. VI. Funding. VII. Bibliography.

## I. INTRODUCTION

In broad terms, the agri-food chain is a certain form of diverse links and relationships between its participants who include agricultural producers, suppliers of productive inputs, processors, warehousing centers, logistic centers, wholesalers, retailers and consumers. They form particular links of the chain and have specific rights and obligations attributed to them, such as the "transformation and movement" of a primary agricultural product, whether natural or processed, from farm to fork. In addition to operators and the allocation of agri-food products, the essence of the chain also includes the information and financial flows between them (Jarzębowski & Klepacki, 2013, p. 110). Undoubtedly, supply chains form a certain organizational structure which the literature often refers to as the "network" and which demonstrates some structured vertical links. Hence, the chain may comprise two or more legally separate organizations which affect different processes and activities that add value in the form of products and services intended for end customers (Stadtler & Kilger, 2008, p. 9). As noted by M. Hugos (2003, p. 10), the definition of the chain includes five key elements such as manufacturing, supply, location, transport and information. Their coordination is necessary for the proper functioning of the chain and for the attainment of defined business goals. The proper organization of these elements between the stakeholders is referred to as supply chain management (Bendeković, Naletina & Nola, 2015).

In legal terms, the supply chain comprises specific components intended to ensure food security and to reinforce the position of agricultural producers as agricultural market players, as can be inferred from particular threads of Regulation No. 2021/2115.<sup>1</sup> The first part of the previous sentence is a direct reference to the supply chain which spans from primary production and fodder production to the supply or sale of food to consumers. The second part means a series of consecutive markets that include the products referred to above. As a consequence, the agri-food chain can be considered to be a legal and organizational integration of different operators involved in the flow of goods from production through to consumption, together with their interrelations

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and obligations deriving from it. The legislator views this as a collaboration based on an interaction between two or more operators (thread 83 of Reg. 2021/2115).

The chains functioning in the economy are not homogeneous. They differ in the number of participating operators, in the type of relationships between them and in the subject matter of their activity. Based on the above, a distinction can be made between short and long chains.<sup>2</sup> This paper focuses on determining the role of clusters in creating mutual relationships between actors of particular agri-food chains. There are many reasons to address these topics, especially including the cognitive, socioeconomic and practical aspects. It should be noted that, in broad terms, the issues related to the clusters' functioning and impact on the agri-food chain are mostly addressed from the perspective of managerial sciences. In turn, it seems that the legislator leaves it up to chain actors themselves to develop their mutual interactions. Nevertheless, the legislature apparently makes some efforts to use clustering as an instrument in improving the mutual relationships and structures inside of it.

The highly diversified socioeconomic aspects provide yet another reason to tackle these topics. The proper formation of the agri-food chain allows it to be stabilized and to safeguard the profitability of agricultural activities. It can therefore be assumed that the creation of favorable organizational conditions would contribute to improving the chain's functioning. Also, there are practical aspects that make it worthwhile to choose this topic. It has to be emphasized that legal issues considered in this paper require that knowledge resources of other sciences (especially including management science, agricultural economics and national policy assumptions) also be taken into account. Indeed, without explaining and understanding the essence of clusters, it would be impossible to analyze the applicable legal standards and to formulate conclusions de lege ferenda.

Therefore, the purpose of this paper is to assess the legal solutions implemented at Union and national levels which directly or indirectly affect the way the clusters exist and function. Also, it is intended to answer the question whether the legislature supports the functioning of such projects.

The basic method used in this study is a dogmatic analysis of legal text. It refers to specific conditions occurring in agriculture in which these regulations function. Therefore, selected legal standards were examined de lege lata. Also, because of its nature, this paper uses a descriptive method and is based on foreign and Polish literature on the subject.

#### **II. THE CONCEPT OF THE AGRI-FOOD CLUSTER**

Cluster is a term defined by M.E. Porter<sup>3</sup> who viewed it as a geographic grouping of interrelated undertakings representing the same industry, their specialized suppliers and service providers, undertakings active in related and auxiliary industries, and social institutions and organizations (e.g. universities, training centers, R&D institutes, industry associations, government and non-government administration) related to these undertakings (Porter, 2000, p. 15).

The Porter's concept was enhanced and clarified by other authors and by international organizations and institutions (Abrhám, 2014).

Examples include the way clusters are considered by the European Commission which uses the term "regional cluster" defined as a geographically bounded concentration of interrelated and interdependent operators (undertakings) active in the same or similar industries (European Commission, 2002, p. 9). A slightly broader definition was provided in "The Concept of Clusters and Cluster Policies and their Role for Competitiveness and Innovation", a document published by the Commission in 2008 (European Commission, 2008, pp. 9-10). Accordingly, a cluster means a group of related economic operators and institutions which are located close to one another and have enough potential and willingness to develop commercial, technological and other cooperation. The group of operators referred to above comprises independent undertakings irrespective of their business size as well as scientific organizations which enable the exchange of knowledge and experience and contribute to the transfer of technologies, the creation of collaborative networks and the dissemination of information between clustered undertakings (European Commission, 2008, pp. 9-10). The Commission believes that clusters are a real economic phenomenon which can be observed and measured (European Commission, 2008, pp. 9-10).

However, the legislator has not yet developed a detailed definition of the agri-food cluster. Instead, they specified its structure in Article 2, Item 92 of Regulation 651/2014 while also acknowledging the compliance of some kinds of aid with the internal market pursuant to Articles 107 and 108 of the Treaty, and defining the innovation cluster.<sup>4</sup> The latter means structures or organized groups of independent parties (such as innovative start-ups, small, medium and large enterprises, as well as research and knowledge dissemination organizations, non-for profit organizations and other related economic actors) designed to stimulate innovative activity through promotion, sharing of facilities and exchange of knowledge and expertise and by contributing effectively to knowledge transfer, networking, information dissemination and

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collaboration among the undertakings and other organizations in the cluster. As it can be seen, their definition is consistent with the general meaning of clusters specified above.

The legislator considers clusters as a grouping of small, medium and large undertakings as well as advisory bodies or research organizations. A cluster is designed to stimulate economic and innovative activity by promoting intensive interactions, the sharing of facilities and the exchange of knowledge and expertise, as well as contributing effectively to knowledge transfer, networking and information dissemination among the undertakings in the cluster (Article 2(2)(q) of Reg. 1305/2013). At the same time, the legislator sees the need for supporting the abovementioned research, development and innovation activities, and considers them to be a crucial EU-level objective. This is also corroborated by the Europe 2020<sup>5</sup> strategy which identifies research and development as a key driver for achieving the objectives of smart (based on knowledge and innovation), sustainable (based on more environmentallyfriendly and more competitive resources) and inclusive growth (with high levels of employment that ensure social cohesion) (European Commission, 2014, pp. 2-3). Therefore, in order to support it, the legislator came up with the definition of an innovation cluster which means structures or organized groups of independent parties (such as innovative start-ups, small, medium and large enterprises, as well as research and knowledge dissemination organizations, non-for profit organizations and other related economic actors) designed to stimulate innovative activity through promotion, sharing of facilities and exchange of knowledge and expertise and by contributing effectively to knowledge transfer, networking, information dissemination and collaboration among the undertakings and other organizations in the cluster (item 1.3[s], Communication 2014).

The functioning of clusters can be of particular importance to the formation of the supply chain in the agri-food sector. Hence, through the lens of the above definitions, an agri-food cluster can be viewed as certain economic interrelations (established not only to generate profits but also to implement diverse innovations in the production, processing and marketing of agrifood products) between an agricultural producer, a processor, a distributor, an applied research center and local public entities. It is an organized form of voluntary collaboration between undertakings which are structurally, geographically, institutionally and relationally embedded in the cluster. Its participants' efforts are geared towards joint implementation of projects, which allows them to reap certain benefits and improve the efficiency of physical and information flows. This particularly includes access to knowledge and

skilled human resources and collaboration with scientists which allows them to exchange information or transfer technologies between theoreticians and practitioners (Frankowska, 2018, p. 16; Wiśniewska-Paluszak, et al., 2020). For instance, in a cluster relationship with an applied research center, both the agricultural producers and the processors become capable of streamlining their production processes; this contributes to scaling up their production and, thus, to enhancing their innovative potential. The collaboration also improves mutual access to a broad network of relationships and enables sharing contact information within the industry. At the same time, as a form of cooperation, the clusters' activities are eligible for financing with external sources, including at national and Union level. Also, they can seize the opportunities for reducing inter-organizational transaction costs. Moreover, as part of cooperative measures, cluster participants can distribute the risks and related costs between a larger group of operators (participants). By doing so, they reduce their own individual risk. More generally, cluster activities allow the actors of each agri-food chain to minimize the administrative barriers and to establish closer cooperation with regional authorities. Another crucial value added by the operators' functioning in clusters is the emergence of an education and training back-end which forms part of clustered structures and enables knowledge exchange with partners who demonstrate qualifications in the field concerned.

#### **III. CLUSTERS IN THE COMMON AGRICULTURAL POLICY**

In accordance with the overarching concept, the cluster policy is developed based on what is referred to as a bottom-up approach. In this context, a dominant role is played by local operators who are involved in the agri-food chain, know the market conditions, and form an integrated part of the economy of the regions they are based in.<sup>6</sup> The legislator realized that they need to be provided with certain aid in order to encourage their setting-up and stimulate their sustainability. The goal of that aid is to eliminate market imperfections related to coordination problems which obstruct the development of operators or pose barriers to their mutual contacts and knowledge flows within the cluster. Also, the legislator found that state aid may support the functioning of clusters with a view to improve collaboration, establish networking and enable learning.

As mentioned earlier, agricultural collaboration is among the priorities for the Common Agricultural Policy in the area of rural development. Its particular relevance was noticed by the legislator who specified its role in implementing the "Europe 2020" strategy for smart, sustainable and inclusive

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growth (Article 5 of Reg. 1305/2013). It was put in the framework of strategic thematic objectives which are to foster knowledge transfer and innovation in agriculture, forestry, and rural areas. Their specific tasks eligible for certain aid include the need for supporting innovation and cooperation and for reinforcing the relationships between agriculture, food manufacturing and forestry, on the one side, and research and innovation, on the other. The goals identified above fall within the concept itself of the agri-food cluster. Moreover, they imply the eligibility of cluster activities for aid-indeed, pursuant to Article 35 of Reg. 1305/2013, the legislator provides financial support, as discussed above, in order to promote different forms of cooperation involving at least two entities active in the agricultural sector and anywhere across the food chain. However, not every activity is eligible for aid. Namely, the legislator defined the scope of cooperation which, pursuant to Article 35(2) of Reg. 1305/2013 includes the following: a) the implementation of joint pilot and research projects; b) the development of new products, practices, processes and technologies in the agri-food sector; c) cooperation in organizing joint work processes and sharing facilities and resources and for the development or marketing of tourism services relating to rural tourism; d) the development of short supply chains and local markets; e) promotion activities. Aid can be obtained by farmers active in producer groups, cooperatives and cross-sectoral organizations, and is granted for the setting up of clusters and what is referred to as European Innovation Partnership networks.

As regards the latter, Article 53 of Reg. 1305/2013 views them as a European network designed to promote rural development whose responsibility is to develop a single structure combining domestic networks, organizations and administrative structures engaged in rural development at Union level. Namely, it may facilitate the setting up of cluster initiatives and pilot or demonstration projects which may relate, inter alia, to the following issues: a) increased agricultural productivity, economic viability, sustainability, output and resource efficiency; b) innovation in support of the bio-based economy; c) biodiversity, ecosystem services, soil functionality and sustainable water management; d) innovative products and services for the integrated supply chain; e) opening up new product and market opportunities for primary producers; f) food quality, food safety and healthy diet; and g) reducing post-harvest losses and food wastage.

The support is intended solely for startup clusters and networks and for existing ones which engage in a new activity. Eligible for support are selected collaboration costs (such as the setting up of a business plan or a local development strategy) related to ongoing activity, including to promotion measures (creation of one's own brand, participation to fairs, expositions etc.).

Although the support referred to above was planned for the 2014–2020 CAP implementation period, it continued in the same scope until the launch of a new scheme under the 2023–2027 CAP. The CAP reform does not provide for any changes as to the functioning of and support for clusters as an organizational form of cooperation. Pursuant to Article 77(1) of Reg. 2021/2115, the legislator agrees that Member States may grant support for cooperation under the conditions further specified in their CAP Strategic Plans.<sup>7</sup>

# IV. LEGAL ORGANIZATION OF THE FUNCTIONING OF AGRI-FOOD CLUSTERS IN POLAND

Just as their Union counterpart, the national legislator has disregarded the need to formulate a legal definition of the "agricultural" cluster. Nevertheless, note that two definitions of clusters were formulated for the purposes of implementing specific government policies. The first one was created in order for the Polish Agency for Enterprise Development (PARP) to grant financial aid for diverse measures in Eastern Poland, including the setting up and development of clusters concerned overall.<sup>8</sup> Pursuant to Section 2(8) of the Regulation from 2013, a cluster shall mean spatial and sectoral concentration of: operators committed to economic development or innovation; scientific units; and entrepreneurs who are engaged in economic activity in the territory concerned, compete and collaborate in the same or similar industries and are interrelated in a collaborative network.

In turn, the second definition refers to clusters in the context of accessing renewable energies.<sup>9</sup> Pursuant to Article 2(15)(a) of the Act, an energy cluster is an agreement under civil law which can be entered into by natural persons, legal persons, certain entities related to higher education and local government units, and which governs the production, the balancing of demand for, distribution of or trade in energies derived from renewables or other sources or fuels, within a distribution network of a defined voltage located in the cluster's activity area or on the territory of 5 communes. In that definition, the legislator also requires the cluster to be represented by an identified coordinator, i.e. a dedicated cooperative, association, foundation or any member of the energy cluster specified in the relevant agreement under the civil law. The coordinator acts as an enabler of actions intended, for instance, to stimulate contacts and cooperation between cluster members or to develop

a cluster development strategy.<sup>10</sup> It forms an integral part of all clusters, including those engaged in agri-food chains.

Just as at EU level, the setting up of agri-food clusters is based on the free initiative of founding members, with the government playing a limited role. Essentially, the clusters can be wrapped around any legal framework, whether more or less formal. Usually, they choose their relationships based on different types of agreements (including arrangements and consortium agreements) or as part of associations, limited companies, foundations etc. When looking through the lens of how clusters are set up, an agreement (including an innominate agreement) seems to be the foundation for the establishment and functioning of a cluster. Note that unlike in the case of setting up an association or company, the members do not incur any additional costs related to entering into the cluster. Also, the agreement between them provides the parties with broad autonomy in how they formulate their mutual rights and obligations. Nevertheless, the type of their interrelation should enable the pursuit of its intended goals while also specifying certain management and representative bodies. However, if the collaboration is based solely on an agreement, the cluster is not endowed with legal capacity. This can become a major obstacle to the cluster's functioning in the market as it prevents it from being a party to relationships under civil law. Also, its members are responsible for all obligations arising under the agreement. Therefore, appointing a coordinator in the agreement (as referred to above) seems to be the right solution. The coordinator's role is focused on representing the cluster, undertake activities to its benefit and collaborate with scientific units, higher education establishments and local government bodies.

As regards public aid and the creation of encouraging institutional conditions for the setting up of clusters, Poland has so far provided a favorable environment. For instance, selected clusters were eligible for aid provided by the Polish Agency for Enterprise Development under the Innovative Economy Operating Program "Support for cooperative links of supraregional interest and for the promotion and collaboration (the collaboration component) - Development of Eastern Poland".<sup>11</sup> The Polish Agency for Enterprise Development supports the development of clusters with research and analyses, trainings and promotions and through the implementation of international projects.

In turn, agri-food clusters are also supported under aid measures provided for by the Common Agricultural Policy. Namely, support is addressed in Article 35 of Reg. 1305/2013 and means a partial reimbursement of the eligible costs.<sup>12</sup> Aid is delivered as a lump sum in the case of operations related to horizontal and vertical cooperation among supply chain actors for the establishment and the development of short supply chains and local markets, and as support for promotional activities related to the development of short supply chains and local markets in a local context. Clusters may access support under a specific measure as long as they meet the conditions for innovation operating groups.

In accordance with the assumption made at Union level, Member States will implement what is referred to as Strategic Plans starting from 2023 (Article 104 of Reg. 2021/2115). The provisions of the national plan include subsidies for investments in increasing farm competitiveness. They are intended to make farms more market-oriented and competitive by: (i) rationalizing production technologies, (ii) introducing state-of-the-art technologies or innovations (including digital solutions), (iii) changing the production profile, (iv) improving production quality, (v) adding more value to products. The operations may be related to investments carried out by a farmer who belongs to an agricultural producers group, a producer organization or a cooperative (if other than a group or organization), including a cluster. In addition, support for cooperation in general (as mentioned above) continues to be provided.

## **V. CONCLUSIONS**

Clusters are undoubtedly a tool for the agricultural policy in place. They should be viewed as a collaboration method between operators active at different stages of the supply chain, and as a way to develop the chain's individual links (agricultural producers, enterprises etc.). They enable the setting up of networking and economic relationships whose impact goes far beyond the local context while also considerably contributing to the animation of geographic areas where they function.

Agri-food clusters represent certain informal action groups established within the supply chain, and definitely have a positive impact on it. Their members associate voluntarily and take joint measures that address their policies and specific needs. Nevertheless, the absence of a defined legal form may give rise to some organizational and legal problems which could hamper the formal aspects of their functioning and fuel conflicts of interest between the members. For instance, there is need to formulate document templates, such as joint action agreements, collaboration agreements, knowhow agreements, articles of association, instruments of constitution etc., which could be used by the parties to the cluster. Hence, public entities engaged in cluster operations have a certain role to play in providing them with both financial and organizational support. Note also that support should not mean excessive intervention; instead, it needs to be well balanced and aligned with the type of activity concerned. At the same time, no homogeneous formal model can be established for clusters, which is the consequence of their concept. Thus, the authorities should not intervene too deeply into the links inside the cluster. It would therefore be advisable to minimize the intervention measures while making them an effective way of finding solutions for emerging problems, if any. Moreover, the authorities should only stimulate the development of clusters instead of setting up clusters themselves. Undeniably, the legislator provides favorable conditions for the establishment and functioning of clusters which can also enjoy public support.

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- 2 For a broader description, see: Tundys, 2015; Kapała & Lattanzi, 2021.
- 3 This was addressed by Kacprzak, 2014.
- 4 COMMISSION REGULATION (EU) No 651/2014 of 17 June 2014 declaring certain categories of aid compatible with the internal market in application of Articles 107 and 108 of the Treaty Text with EEA relevance, OJ L 187, 26.6.2014, p. 1–78.
- 5 European Commission, 2010.
- 6 Ministerstwo Gospodarki Departament Rozwoju Gospodarki, 2009, p. 18.
- 7 Regulation (EU) 2021/2115 of the European Parliament and of the Council of 2 December 2021 establishing rules on support for strategic plans to be drawn up by Member States under the common agricultural policy (CAP Strategic Plans) and financed by the European Agricultural Guarantee Fund (EAGF) and by the European Agricultural Fund for Rural Development (EAFRD) and repealing Regulations (EU) No 1305/2013 and (EU) No 1307/2013, PE/64/2021/ REV/1, OJ L 435, 6.12.2021, p. 1-186.
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- 10 For more information, see: Borowicz, et al., 2009, p. 9-11.
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