




## Article

# Classifying New Hybrid Cooperation Models for Short Food-Supply Chains—Providing a Concept for Assessing Sustainability Transformation in the Urban-Rural Nexus

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**Abstract:** In response to the negative effects caused by structures of the dominant agricultural system and new market opportunities, increasing food supply structures have re-emerged in the urban-rural context of industrialized countries in recent years. These food supply structures often accompany new forms of hybrid cooperation models, including actors and institutions that have not shared resources previously. They form new alliances for sustainable transformation in the agri-food sector. Simultaneously, discourse has arisen in science and practice about the sustainability potential of such hybrid cooperation, referring to a lack of critical systematization and the necessity for creating an assessment concept. From the latter, one could draw conclusions about the transformative potential of such cooperation models and their potential to serve as blueprints for other regions. In this conceptual paper, a classification approach derived from social enterprise literature is elaborated, extended, and evaluated, to design a classification of new hybrid cooperation models that allow comparisons between regions and are sensitive to their dynamics. We show in an application how the classification approach, considering the dimensions “actors”, “resources”, and “actions”, serves to discover patterns in the development of short food-supply chain practices, identifying individual transition paths and, thus, making statements about their sustainability and challenges.

**Keywords:** agri-food systems; collective action; cooperation; pooling; urban-rural interlinkages; short food-supply chains; regional food systems; hybrid organizations



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## 1. Introduction

Scientists argue that, exacerbated by the COVID-19 pandemic [1–3], we are at a tipping point of our unsustainable and non-resilient globalized food system [4–6]. The premise of providing sufficient and affordable food to as many people as possible has led to the dominance of global agri-food system structures that are highly concentrated and follow the prevailing paradigm of productivity and efficiency, to the detriment of the environmental, governance and social dimensions of sustainability [7,8]; for example, in terms of global warming [6], there is water and soil pollution [9–12], a decreasing diversity of crop species [13–15], soil erosion [16] and a loss of biodiversity in agricultural systems [17].

Thus, alternative, more sustainable conceptualizations of agri-food systems are increasingly discussed, highlighting the importance of the territorial embeddedness of agri-food systems and the social relations of proximity [18,19]. In this context, short food-supply chains (SFSCs) in the urban-rural nexus [7,20,21] are considered to be one “building

block" [22] of the sustainable transformation complex. Many studies have shown that SFSCs contribute to the sustainable transformation of the agri-food supply system [7]. One reason for this is seen in the reconnection of urban consumers to producers in the surrounding areas of the cities [23,24]. This argument is reinforced by Bartke et al. [25], who stress that urban and rural areas are interdependent. Their resources and functions, such as soil, land, freshwater, waste, energy and food supply, are closely intertwined. In addition, the fact that more and more local products and new SFSCs are emerging in Europe [7,26] reflects the increased interest ("turn to quality") of consumers in regional food production and supply [23,27]. This creates a novel opportunity space for the farmers remaining in the urban-rural environment to create new business strategies [28] which has also been recognized and advocated by the European Union (EU), which defines SFSCs as "a supply chain involving a limited number of economic operators, committed to co-operation, local economic development, and close geographical and social relations between producers, processors and consumers" [29].

However, there is a lack of knowledge regarding how new SFSC initiatives emerge in the urban-rural context, and what strategies and organizational models can foster sustainable transformation [30–32]. Georgiadis et al. [33], for example, criticize researchers for ignoring the role of interdependencies between the actors involved in a food system. Doernberg et al. [34] and Ilieva [35] point out that local governments focus primarily on sectoral approaches. For instance, the EU definition of an SFSC ignores the multifunctional and hybrid characteristic of SFSCs as it focuses only on economic operators, ignoring public actors and civil society, which are identified as important actors within SFSCs [22,25,34,36]; this shows that multi-governmental and multifunctional topics, such as the sustainable transformation of urban-rural SFSCs, are still under-researched. While municipalities are beginning to acknowledge that local SFSCs are one field of action that contributes to sustainable transformation [25,37], there are a lack of tools to classify and systematize the projects and activities emerging in their areas, which makes it challenging to contribute in cross-scale cooperation and knowledge-sharing with other governments [22,34,38–40]. This lack of knowledge is seen as one of the reasons why there are not only proponents of strengthening urban-rural linkages through SFSCs [7,41], which highlights the need to provide a concept for assessing SFSCs in the urban-rural context; this can help us to better understand their hybrid nature, resource-pooling strategies, challenges, and potentials, and, thus, their sustainability potential in the long term.

In order to characterize the hybrid nature of SFSCs, we argue that it makes sense to look more closely at their role in the overall economy and their interaction with the market, civil society and public policy [42]; this is because the cooperation of actors, and, thus, the pooling of resources, is considered essential for sustainable transformation [25,43]. This also means that this article's units of analysis are new cooperation models that aim to shorten the food supply chain to drive sustainable transformation. In this context, the new cooperation models are hybrid forms of organization [44], i.e., a new cooperation of at least two actors pursuing the dual mission of financial sustainability and a social purpose [45]. New models of cooperation are about pooling resources to fulfil this dual mission "to the emergence of novel institutional forms that challenge traditional conceptions of economic organizing" [46], cited in [44] (p. 418).

A screening of examples in the literature and practice shows that it is challenging to classify emerging cooperation models in the agri-food sector due to the diversity of actors, strategies, and organizational forms, as they follow the dual mission; thus, they do not follow the usual logic of the market, similar to social enterprises. Social enterprise theory deals with the contextual factors that lead to the creation of social enterprises, the underlying organization dynamics and structures, and how different types generate social impact, mobilize resources, and bring about sustainable social change [47]. To apply the concept of social enterprises to new cooperation models in the agri-food system seems purposeful, and is justified by the explicitness of their objectives; these go beyond the economic dimensions and integrate motivations of environmental, social and political concern [48,49],

for example, through action against biodiversity loss, for societal inclusiveness or food sovereignty [21,38,50].

This paper aims to put the aspect of cooperation at the center of the analysis. We propose a classification approach derived from social enterprise literature that allows us to highlight the complexity of the actors, measures, and approaches to sustainable resource use and their impact levels. Building on the increasing pressure to promote sustainable transformation processes in the rural–urban nexus and advancing the emerging scientific discussion on the potential of SFSCs in this context, our concept paper aims to make an important contribution. Therefore, the following Section 2 presents our concept with the dimensions “actors”, “resources” and “actions” (ARA). In addition, we evaluated the concept using real-world examples. The evaluation process is presented in Section 3, and in Section 4, the resulting findings are outlined. The discussion in Section 5 focuses on the questions of potential and challenges of the ARA concept.

## 2. Classifying Urban-Rural Short Food Chain Cooperation Models

Capturing new cooperation models in urban-rural SFSCs requires a classification that maps both established conventional business models and new forms of cooperation, thus, enabling statements about their novelty and distinctive features regarding a transition towards sustainability. To this end, this section presents a classification approach that has been adopted and further developed from the literature on social enterprises. We generally base the classification on three dimensions: firstly, an actor dimension; secondly, a resource dimension; and thirdly, an action dimension. In addition, we adapted the “basic governance triangle”, composed of state, market, and civil society, to display the purposes and more straightforward utilization of the classification. Distinguishing key institutional arrangements that may give ‘structure’ to collective behavior within society is widely used in social sciences [51–54]. The ARA concept covers the following research questions, which will be explained in more detail below in 2.2:

1. Actor dimension: which actors cooperate with which interests?
2. Resource dimension: on what resources is the cooperation built?
3. Action dimension: which steps along the SFSC does the cooperation model represent?

In order to understand the link between social entrepreneurship and urban-rural SFSC cooperation models, Section 2.1 serves to provide background information and implications for our particular context and reflect critically on them. Finally, Section 2.2 presents the three dimensions according to which the cooperation models are to be classified.

### 2.1. Critical Reflection on the Social Enterprise Classification and Its Use to Classify SFSC Cooperation Models

Within the urban-rural nexus, SFSCs are assumed to contribute to various sustainability dimensions [7]. Although the number of studies in this context is increasing, attention is seldom paid to how these emerging SFSCs are organized and formalized. What is known is that those urban-rural cooperation models, particularly their formalization and organization, do not often fit into the conventional economic landscape represented by the market and the regulatory role of the state. Moreover, their emergent processes and practices are poorly understood. An important issue here is the purpose of these cooperations compared to those in the conventional economic landscape. Similar to what Defourny and Nyssens [42] found in their attempt to systematize social enterprises, new cooperation models in the agri-food system do not often aim primarily to generate profits, but rather, to fulfill one or more social missions, with social enterprises often employing practices such as redistribution or reciprocity [53]. Whether these are also important practices in urban-rural SFSC cooperation models needs to be identified.

Although it has been discussed for a long time that redistribution and reciprocity are essential elements to understand how societies work [55], it was only in the 1980s and 1990s that they were used to conceptualize social enterprises. New entrepreneurial dynamics emerged in Europe at that time, intending to find solutions to structural unemployment,

high government budget deficits, the exclusion of certain social groups from the labor market and a lack of adequate public policy programs [56]. In order to capture these activities, Evers and Laville [57] and others labeled these emerging organizations—such as associations, cooperatives and foundations—as private nonprofit organizations, and assigned them to the third sector [53,57]. The latter is the space that accommodates different kinds of nongovernmental and nonprofit institutions [58]. The need to define a new ‘action space’ for these organizations has also been recognized by policymakers; the Italian government created a legal concept for social cooperatives in 1991, and the EU Commission, in 2017 [59], defined social enterprises as organizations that “combine social objectives with an entrepreneurial spirit” and focus on “achieving broader social, environmental or community objectives” [60].

Social enterprises, thus, emerge when social entrepreneurs establish new cooperation models to apply commercial activities to fulfill their social mission [61]. According to Defourny and Nyssens [62], the social mission can be justified in several ways. Noting that this list is not exhaustive, they identified three possible levels of social mission. The latter exists when, firstly, products or services are produced to address a social problem that other companies or the public sector cannot solve. Secondly, the social mission can be found in how social actors interact, for example, by adopting innovative organizational methods that integrate disadvantaged groups. Thirdly, the social mission can also be fulfilled by addressing broader societal values, such as democracy or sustainable lifestyles [62,63]. These models of cooperation that aim to operate at one or more of these levels vary widely and are, therefore, difficult to classify. This difficulty is also reflected in Defourny and Nyssens’ [56] statement when applying their classification approach in Europe. They found that the form and objectives, and the organizational forms chosen, vary between and within countries.

Social enterprise and hybrid organization research arose primarily to find solutions for the social dimension of the sustainability debate, i.e., topics such as labor integration, the financing of social tasks, and education [42,44,59]. Therefore, the proposed classification is also suitable for systematizing new urban-rural cooperation models in SFSCs. While it was primarily social challenges that led to the creation of social enterprises in the past, we argue that today, in early industrialized countries, environmental issues are important drivers alongside new social challenges, such as increasing spatial inequality between urban and rural areas, and unhealthy diets. Thus, cooperation models are now emerging to address these challenges. Defourny and Nyssens [56] agreed that social enterprises serve multiple purposes, such as environmental practices or local development. Indeed, when mapping social missions in social enterprises worldwide, Defourny et al. [53] found that ecology, nutrition, community development, and capacity building are four of the top ten social missions and, thus, have clear links to urban-rural agri-food systems.

Accordingly, social missions do not pursue social goals exclusively, but often follow a sustainability program that links ecological, social and economic objectives to democratic action. These arguments lead to the conclusion that sustainable missions are social missions, and new SFSC cooperation models can be understood as forms of social enterprise. Therefore, new cooperation models targeting the urban-rural SFSCs could also be understood and studied using the social enterprises’ classification approach. However, more knowledge about their dynamics is needed at this point. In Section 2.2, we present the different dimensions used to classify social enterprises, which help to specify our research questions.

## 2.2. Capturing Cooperation Models Dimensions: The ARA Concept

The ARA concept focuses on understanding the interplay between actors, resources, and action within urban-rural SFSC cooperation models. These ARA dimensions will be introduced from Section 2.2.1 onward, along with our understanding of urban-rural SFSCs in Section 2.2.3.

### 2.2.1. Actor Dimension

Identifying important actors within new cooperation models requires linking their actions to specific behaviors and characteristics. Following the classification of Defourny and Nyssens [42] and Defourny and Pestoff [58], we propose focusing on the drivers and interests of actors that also cover the main actors in urban-rural linkages, which is an essential prerequisite for our approach. Learned initially from Gui [64], the three principles of interest—mutual, general, and capital—are distinguished by marking the angles of a triangle (Figures 1 and 3). In this way, it is possible to discuss the relationship between these different motives by focusing on the specific responsibilities and characteristics of the actors [58,65,66]. For simplification, we apply a classification approach, being aware that these ideal actor types are not always reflected in reality [54,62]. Taking the three types of actors—private, state, and community actors—with their motives as a starting point, we describe their “traditional” action space and principles in Table 1a, while Table 1b depicts hybrid cooperation models with enlarged action space, following definitions and empirical descriptions from the literature [42,58,62]. New cooperation models can be mapped in this way. The social enterprise literature argues that individual actors retain their interests and capabilities regardless of their cooperation with other actors in the same space (see Table 1a) or with actors in different spaces (see Table 1b). Thus, a wide variety of hybrid cooperation models can be described theoretically [67].

**Table 1.** Summary and examples of action spaces and their characteristics.

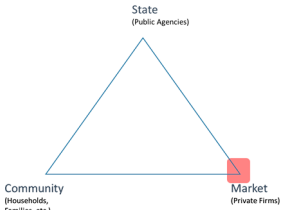
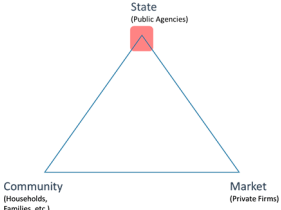
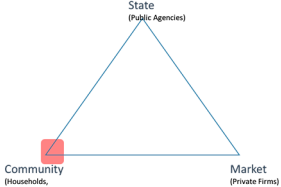
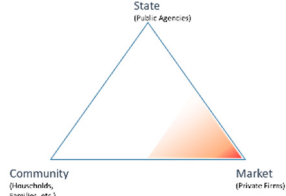
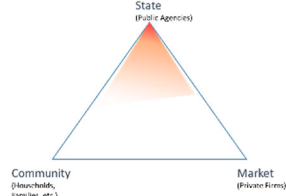
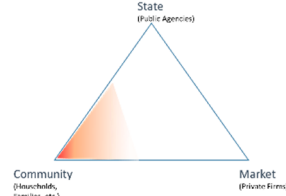
	Principles/ Mechanism	Main Interest	Cooperation Partners and Examples from the Agri-Food Sector
<b>1a Traditional action spaces</b>			
 <p>Market Action Space</p>	<ul style="list-style-type: none"> <li>Pricing, contracts, efficiency, (steering) supply-demand relationship, capital interest</li> </ul>	<ul style="list-style-type: none"> <li>Maximizing profit</li> </ul>	<ul style="list-style-type: none"> <li>Market-space actors</li> <li>Examples: farm businesses, supplier companies, processing, and marketing firms</li> </ul>
 <p>State Action Space</p>	<ul style="list-style-type: none"> <li>Redistribution through, for example, payment rules, policies, subsidies, information, and regulation</li> </ul>	<ul style="list-style-type: none"> <li>Providing public goods</li> </ul>	<ul style="list-style-type: none"> <li>State-space actors, such as governments on different levels, state employees, research institutions</li> <li>Examples: CAP payments, urban food policies</li> </ul>
 <p>Community Action Space</p>	<ul style="list-style-type: none"> <li>Reciprocity, mutuality, social relationships</li> </ul>	<ul style="list-style-type: none"> <li>Circulating, goods and services, fulfilling common interests</li> </ul>	<ul style="list-style-type: none"> <li>Community-space actors, such as households, civil society, self-help, and mutual groups</li> <li>Examples: Food Policy Councils</li> </ul>



Table 1. Cont.

	Principles/ Mechanism	Main Interest	Cooperation Partners and Examples from the Agri-Food Sector
1b Hybrid action spaces			
 <p>Market-Third Sector Action Space</p>	<ul style="list-style-type: none"> <li>○ Applying market principles together with redistribution and or reciprocity principles</li> <li>○ Cooperation models “that operate entirely in the market and seek profits while applying different rules than typical capitalist enterprises” [42] (p. 14)</li> </ul>	<ul style="list-style-type: none"> <li>○ Maximizing profit</li> </ul>	<ul style="list-style-type: none"> <li>○ State-space actors and/or community-space actors</li> <li>○ Examples: community-supported agriculture</li> </ul>
 <p>State-Third Sector Action Space</p>	<ul style="list-style-type: none"> <li>○ Mixing redistribution principles with market principles and/or reciprocity</li> </ul>	<ul style="list-style-type: none"> <li>○ Providing public goods</li> </ul>	<ul style="list-style-type: none"> <li>○ Market-space actors and/or community-space actors</li> <li>○ Examples: Swedish farmers cooperatives, which were heavily involved in regulating agricultural production, prices, import quotas, and export subsidies before their membership in the EU and the CAP [65]</li> </ul>
 <p>Community-Third Sector Action Space</p>	<ul style="list-style-type: none"> <li>○ Often characterized as nonprofit</li> <li>○ Using infrastructure or redistribution capacities of governments and/or market principles</li> </ul>	<ul style="list-style-type: none"> <li>○ Fulfilling common interests</li> </ul>	<ul style="list-style-type: none"> <li>○ Market-space or/and state-space actors</li> <li>○ Example: agriculture cooperatives</li> </ul>

Starting with the market action space, private actors operate primarily according to the market principle. They operate within a convergence between supply and demand and draw their resources from the sale of products and services exchanged through pricing. The relationship between the supplier and the buyer is usually a formal commercial contract. According to Evers and Laville [57], capital interests cooperate with individual business units that focus primarily on profit-making and profit maximization. In most democracies, the state action space is represented either by actors elected to fulfill public interests or people employed by the government. Their task is to put the common good in the foreground with its actions, and to regulate access to public goods. To this end, state actors often use the principle of redistribution. On this basis, decision-making powers are transferred to central authorities, which are responsible for their administration and acting based on established payment rules and targets [57]. The community action space is represented by civil society or the household, and often operates based on the reciprocity principle; this refers to mutuality and is, thus, a fundamental principle of human action. Evers and Laville [57] describe reciprocity as the circulation of goods and services between groups and individuals, which can only take shape if all parties are willing to enter into a social relationship. According to this, reciprocity is an original noncontractual principle of economic activity in which

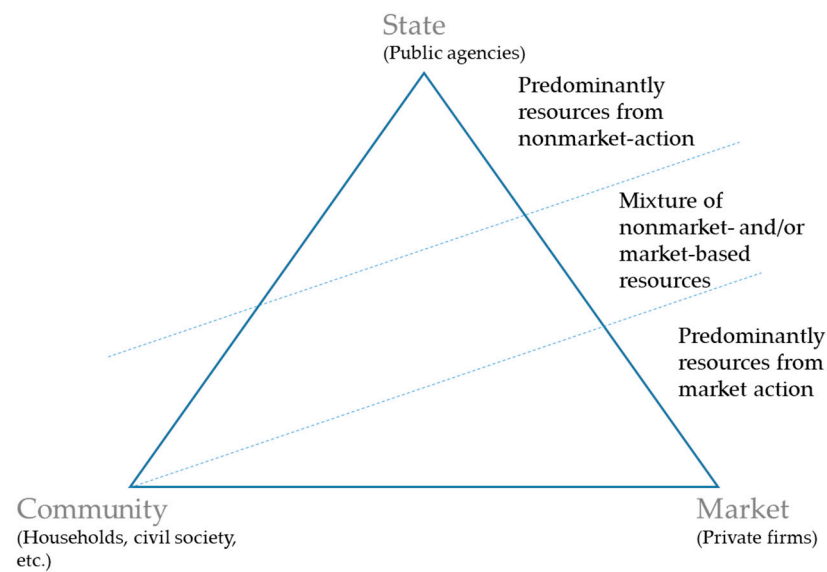
the social connection is more critical than the goods exchanged. Following Gui [64] and Defourny and Nyssens [62], we adopt the view that in this reciprocity, actors aim primarily to satisfy the needs of the members of a community. Accordingly, action is not founded to maximize the return on capital, but to fulfill a general or common interest [64], contribute to the common good, or meet the social demands of specific populations.

These traditional action spaces in Table 1a indicate a separation of action where entrepreneurs only work together within one's action space. However, the literature on social enterprise shows that hybrid cooperation models exist alongside these traditional action spaces [42,58,65]. These activities arise when the market, state, or community services no longer meet the required demands or are no longer accessible to certain groups [58,68]. Martens et al. [54], for example, show multiple cooperatives founded in rural areas due to the increasing lack of public infrastructures, such as freshwater supply or swimming pools. Meanwhile, action outside the market space occurs when the services provided by private actors are not affordable for the people who need these services, for example, in the housing sector [54,58]. Table 1b, therefore, illustrates further action spaces and examples resulting from cooperation models where the market, state and community actors interact with each other, forming hybrid cooperation models. These interactions are not exhaustive, as cooperation models could emerge at any point in the triangle.

### 2.2.2. Resource Dimension

The question when researching hybrid cooperation models that are founded to apply more sustainable practices is how the accompanying pluralistic objectives can be fulfilled, compared to cooperation models with only one goal. The resource issue plays an important role here. The assumption is that resource pooling is necessary to compensate for the economic disadvantages caused by the rejection of the profit accumulation narrative. Thus, in addition to the actor dimension, another important dimension of Defourny and Nyssens' [62] classification approach is the resource dimension, i.e., the analysis of whether the hybrid cooperation model is built primarily on market revenues, public funds or philanthropic resources. Moreover, the resource dimension can be used to examine which mix of resources is likely to be successful, i.e., can lead to a balance between the social mission of the cooperation model and its long-term sustainability. This also includes the question of how the costs and benefits are shared between the different actors, and shows that the actor and resource dimensions are closely linked [58,62]. Evers [67] argues that academic discourse on this issue lags behind the actions of public authorities, which have long begun to integrate non-state resources into their policies to ensure the sufficient provision of public goods. Even though research on hybrid organizations has increased in recent years, the critique still seems relevant.

As illustrated in Figure 1, the resource types in the classification triangle can be added by dotted lines, indicating the areas where the different resource types are likely to occur; they are dotted because exceptions may occur. Providing examples of hybrid cooperation models of the agri-food system, Defourny and Nyssens [62] explain the boundary between hybrid and market dominance, which converges in the community corner of the triangle, by arguing that this angle is where conservative agricultural cooperatives are located. The latter are member-based organizations, thus, serving a particular community; however, they also operate primarily in the market, drawing their resources predominantly from market action. Another example of hybrid cooperation models situated between the community and the state relying on a mix of nonmarket- and/or market-based resources could be a Food Policy Council initiated by the community but supported by a public actor—for example, by providing infrastructure or funding a coordinating workforce.



**Figure 1.** Resource dimension.

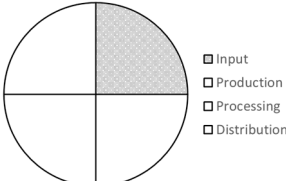
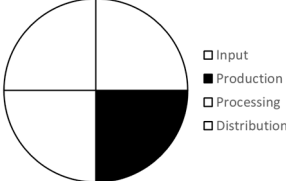
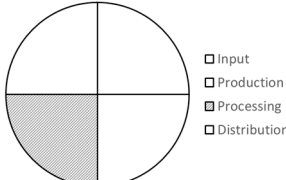
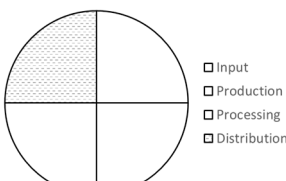
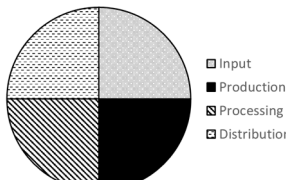
### 2.2.3. Action Dimension

While the actor and resource dimensions are already established in the social enterprise literature, this version of the concept adds the action dimension. It is argued that this fills an essential gap in the literature, as the action dimension allows one to study hybrid cooperation models that emerge in specific sectors; this highlights sector differences, potentials, and challenges due not only to sector specifications, but also to their territorial context. Referring back to the title of this study, it is argued that integrating the action dimension provides a basis for assessing the sustainability transformation potential of hybrid cooperation models.

This study focuses on the agri-food sector within the urban-rural nexus by investigating hybrid cooperation models established to shorten the food supply chains. A lot of studies in recent years have dealt with the definition and importance of SFSCs for sustainable transformation, highlighting the producer-consumer interaction [7,23,69–72]. In this study, we are particularly interested in how hybrid models of cooperation reestablish the links between urban and rural areas and pursue sustainability-oriented goals with their actions in the context of input requirements, such as land availability and seeds, food production, processing, and distribution. We argue that these latter four action fields of SFSCs can be initiated by different actors, namely those presented in the actor dimension in Section 2.2.1. Following this logic, the perspective here is less about the role of the producer or consumer and more about the role of the private, public, and civil society sector; thus, it prompts the following questions: Who provides resources for production? Who produces, processes, and distributes food in the urban-rural nexus? Therefore, it opens new perspectives on the topic. With this approach, we follow Aubry and Kebir [73] and Renting et al. [74], with their more technical understanding of SFSCs, which allows us to examine the new cooperation models according to the four action fields of SFSCs, which are further defined in Table 2. We assume that this will help to investigate the differences between the action fields and to ascertain whether certain areas are more likely to be pooled together than others. It is also possible to illustrate which hybrid cooperation models are created by which actor constellations, and which resource-pooling mechanisms are used.



**Table 2.** Action fields within urban-rural short food-supply chains (SFSCs).

Icon	Action Fields	Definition
	Input	Access to land, knowledge, machinery, and financial resources is essential for implementing new SFSC cooperation models [23]. This action field is fulfilled if the cooperation model contributes purposefully to making land, financial resources, and knowledge accessible for the emergence of SFSCs.
	Production	The cooperation model aims at producing local raw products.
	Processing	The cooperation model processes raw products into products of higher/different value.
	Distribution	The cooperation model supplies or sells products to consumers. Thus, this action field includes different channels of delivering food to the end consumer, such as community catering and farm shops.
	Combinations	All four steps identified can be combined as cooperation models, sometimes taking over not one but several action fields or the whole SFSC.

Following the argument that integrating the action dimension into the analytical concept allows the linking of hybrid cooperation models to their territorial context, other existing definitional approaches for SFSCs are worth considering. The notion of producer and consumer is recognized as valuable for further elaboration of the strong connection between SFSCs and urban-rural linkages. Industrialization, globalization, and agricultural modernization in the Global North terminated the geographical dependency and symbiotic relationship between cities and the local population [75–77]. Farms located in or close to cities and agglomerations exploit the producer–consumer proximity as a locational advantage by establishing SFSCs, which eliminate all or most of the intermediaries of long food supply chains [73,78]. The geographical and organizational proximity of producers and consumers are crucial [73]; while strong geographical proximity can be achieved by establishing urban-rural SFSCs, organizational (solid) proximity is created by direct producer–consumer relationships and channels. Contrarily, weak geographical and organizational proximity are non-regional, and are characterized by indirect and disconnected producer–consumer relationships [19,48,79]. Direct sale is the most direct supply chain connection between producers and consumers. Nevertheless, indirect relationships within

urban-rural areas can also be defined as short when only one or very few intermediaries are transparently positioned between producers and consumers.

We argue that this transparency can be ensured by integrating the action dimension and, thus, highlighting actor constellations and resource-pooling mechanisms. An increasing number of publications show that SFSCs target public-, private-, and community-space actors [7], while less is known about how they are connected and organized and, hence, how resource pooling works best. Ilieva [35], for example, points out that urban areas are “new spaces for food system innovation”. At the same time, Cretella [80] and Doernberg et al. [34] showed that urban governmental body areas are increasingly engaging in the local agri-food sector, often in response to self-organized civil society initiatives for fair and healthy food.

Therefore, it is necessary to integrate the action dimension to capture the great diversity of dynamics that can emerge within the urban-rural nexus. It is assumed that SFSCs are rarely mapped holistically from the beginning, but emerge from individual cooperation models whose strategies need to be investigated. The extended version of the system makes it possible to not only analyze the resource mix and entrepreneurs involved in these new initiatives, but also to map the actions addressed by the initiatives in the SFSC and, in a following step, show the differences and reasons behind the discrepancies between regions.

### 3. Evaluation of the Proposed ARA Concept

This study was carried out as part of the KOPOS research project—a transdisciplinary research project over the period 2020–2025 that focuses on new forms of cooperation and the pooling of resources in the transformation of the agri-food system—and aims to strengthen urban-rural linkages. The project operates closely with science and practice partners, and adopts real-world laboratory design elements [81]. KOPOS draws on real-world issues of societal relevance as starting points of investigation: (1) access and security to arable land for sustainable farming practices in the German region of Berlin Brandenburg, and (2) SFSCs in the German region of Freiburg. KOPOS generally aims to develop and test new cooperation models that tackle the above-mentioned real-world issues in two case study regions, each presenting a real-world laboratory. In addition to the real-world laboratory in Berlin Brandenburg, which deals with access to and the security of land, the practice partners in the Freiburg region are working on the topic of SFSCs. They were subsequently consulted for the evaluation of the proposed ARA concept.

The urban-rural region of Freiburg is scientifically interesting for the investigation of SFSCs. Located in the federal state of Baden Württemberg in Southwestern Germany, it covers the area of the city of Freiburg and the two neighboring districts of Breisgau-Hochschwarzwald and Emmendingen. The project partners chose this spatial definition because it overlaps entirely with the spatial dexterity of existing policy cooperations (“Region Freiburg” and “Biomusterregion Freiburg”) and previous studies on regional food supply [82].

The Freiburg region has suitable prerequisites for a substantial regional food supply due to good climatic and geographic conditions, and a large agricultural diversity from arable land, vineyards and grasslands. Furthermore, due to the Biodiversity Strengthening Act (July 2020), the intention is to reach a share of more than 30% of organic farming within the area in Baden Württemberg to be used agriculturally by 2030. The share of organic cultivation in 2020 reached 12.3% [83]. The region is also known as a hotspot of innovative action in the agri-food sector. Some of the farms of the Freiburg region were pioneers in organic farming for Germany as early as the 1950s [84].

The real-world lab in Freiburg involves numerous actors from science and practice. There is coordination between representatives of the city, the district, the regional food council, and non-university and practice-oriented research institutions. In addition, five cooperation models (hereafter, pilots) were selected in the first year of the project through a tendering and selection process. The criteria included: (1) cooperative elements within the pilot; (2) innovativeness of the approach; (3) perspectives for urban-rural linkages;

(4) location and action area within regional borders; (5) relevance to action fields (see Table 2); and (6) sustainability orientation. In addition, we specifically paid attention to the early business/consolidation stages of the pilots. Thus, the latter can be considered innovative forms of potential cooperation models within the SFSC. The five pilots were each supervised and accompanied by a local KOPOS practice partner (aka “mentor”) to guarantee two-way communication with the KOPOS project.

In order to discuss the ARA concept from the perspective of not only academic debate but also practitioners, we conducted semi-structured interviews with the five mentors of the five pilots. Due to the COVID-19 situation, the interviews were only partially conducted in person, with four of the five interviews conducted via the digital conference platform Zoom. All interviews were fully recorded and transcribed.

The guiding questions were divided into three parts. First, questions were asked about the mentor’s role in the project and their expertise. In addition, questions were asked about the relationship and frequency of interaction with the pilots to ensure that the mentor could make statements about the pilots. The second part focused on the pilots. Mentors were asked to describe what actors, resources, and actions they considered crucial in their pilots. This information was essential to interpret the classification completed in the third part of the interview. In the second part, mentors were also asked what contribution the pilots make to the sustainable transformation process. This information significantly fed into Table 3 in the following section. In the third part, the mentors classified the pilots using the triangle seen in Figure 1. For this purpose, the resources and actors’ dimensions of the ARA concept were initially explained to the mentors. The mentors were then asked to mark where they currently saw their pilot and why. Mentors were also asked to discuss where they would like to see the pilot in five years. In doing so, we wanted to see whether the classification tool was understood and if the tool could be used to map the development of hybrid cooperation models. In addition, workshops, project meetings, and websites were consulted for information about the pilots, to conduct the evaluation and determine the strategy plans completed by the pilots.

The pilots are briefly introduced here in order to better follow the presentation of the results. The first pilot aims to bring together farmers, small distillers and beekeepers, and food producers and consumers, by creating a regional brand and a dedicated shop. The project focuses on biodiversity and inclusion, as the shop will employ people with disabilities. The cultivation of old plant and grain varieties by local farmers is intended to give food a more local touch and enhance the ecological value of field cultivation. The second pilot is an association which emerged from a parents’ initiative. Utilizing two cooks and many volunteers, the pilot aims to prepare a fresh lunch for the children of the participating day-care centers every day. The focus is on the quality of the food. It should be cooked in a suitable way for children, regional and seasonal, with animal products from organic farming. In order to achieve these goals, contracts are to be concluded with local farmers and cooperations, and entered into with sustainable producers. The third pilot is the emerging food hub in Freiburg. The initiative wants to create places where good food is distributed and sold. Oriented on the principles of the solidarity economy, people throughout the entire region are to be given access to socially and ecologically produced food, and sustainable agriculture is to be ensured. To this end, the network wants to offer advice and networking and the complementary infrastructure of logistics or marketing. The fourth pilot is a spin-off of a larger think tank, which promotes primarily regional social–ecological projects through a public limited company. This new spin-off wants to improve the organic offerings in regional community catering. Accordingly, 100% organic products (mainly) from the region are to be processed and cooked. Different types of kitchens are planned under the roof of the new commercial kitchen. In addition, the latter also offers space for a preserving kitchen to strengthen food craft in the region. Positive synergy effects are to be achieved and food waste avoided by sharing the premises and centralizing work processes (e.g., pooling ordering procedures). The fifth pilot is an organization of various organic farmers who have set themselves the task of building up a

previously missing element of SFSCs, namely, a carbon-neutral storage facility to supply the urban population with vegetables produced in the surrounding area, even in winter. A new building constructed according to the latest ecological standards is planned for this purpose.

#### 4. Results

This paper aims to establish an analytical concept for classifying new hybrid cooperation models of SFSCs in urban-rural contexts, which will now be evaluated based on five pilots. Since the pilots were selected from a larger sample according to a set of common criteria, it is argued that they are representative of social enterprises and, thus, organizations that can contribute to the sustainable transformation of a region, as described in Section 2.1. To illustrate what this means in practice, the mentors were asked to describe the added value of their pilots for sustainable transformation, which has been summarized in Table 3. It can be seen that the initiatives often pursue several social missions and, thus, fulfill an important criterion of a social enterprise. In this result section, the dimensions of the ARA concept for all pilots are examined.

**Table 3.** Identified impact delivered via short food value chain cooperation models (according to the description of the mentors, which was compared with the self-representation of the pilots on the project website).

	Social Dimension	Economic Dimension	Ecologic Dimension	Political Dimension
Pilot 1	<ul style="list-style-type: none"> <li>○ Farmers see that something is being done in the region</li> <li>○ Strengthens urban-rural connection</li> <li>○ Educational concept</li> <li>○ Inclusive</li> </ul>	<ul style="list-style-type: none"> <li>○ Creation of an own brand for regional products</li> </ul>	<ul style="list-style-type: none"> <li>○ Promote the shortening of supply chains</li> <li>○ “Not organic farming per se, but still very close to nature”</li> </ul>	<ul style="list-style-type: none"> <li>○ Helps to create knowledge about the legal form chosen, nonprofit limited liability company</li> <li>○ Role-model function of the mayor, take initiative</li> <li>○ It is a rural initiative that could exist like this in many other places</li> </ul>
Pilot 2	<ul style="list-style-type: none"> <li>○ Educational offers for children (creating a relationship to food production)</li> <li>○ Increasing multigenerational learning by bringing together younger and older generations</li> <li>○ Revitalization of the village center</li> </ul>	<ul style="list-style-type: none"> <li>○ Secure income for farmers</li> <li>○ Lower transportation costs</li> </ul>	<ul style="list-style-type: none"> <li>○ Promote SFSCs</li> <li>○ Process mainly organic products</li> <li>○ Processing of second-choice vegetables (reduce food waste)</li> </ul>	<ul style="list-style-type: none"> <li>○ Reliability of the municipality (security)</li> <li>○ The idea to extend the project to other municipalities with a similar structure</li> </ul>

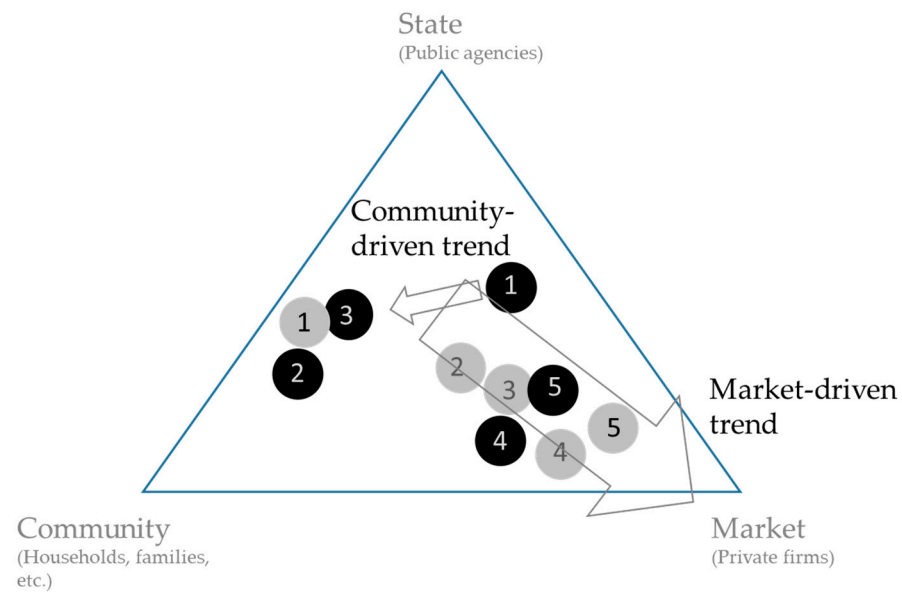
Table 3. Cont.

	Social Dimension	Economic Dimension	Ecologic Dimension	Political Dimension
Pilot 3	<ul style="list-style-type: none"> <li>○ The initiative connects different associations (one that shows refugees' perspectives in the agri-food sector, another that works with people with disabilities)</li> <li>○ Initiative tries to find a fair price mechanism so that everyone can afford regional food.</li> <li>○ Wants to create/increase recognition of producers (e.g., their role as landscape protectors)</li> <li>○ Strengthening the urban-rural relationship</li> <li>○ Offer training</li> <li>○ Raise awareness for children</li> </ul>	<ul style="list-style-type: none"> <li>○ Strengthen small, regional producers</li> </ul>	<ul style="list-style-type: none"> <li>○ Offer seasonal, environmentally friendly cultivated products</li> </ul>	<ul style="list-style-type: none"> <li>○ Integrate politics and authorities in the project, keep politics up-to-date</li> </ul>
Pilot 4		<ul style="list-style-type: none"> <li>○ Promoting regional business with local players</li> </ul>	<ul style="list-style-type: none"> <li>○ There should be 100% organic food, 50% of which should be regional (set incentives for more organic production in the region)</li> <li>○ Internalization of the ecological costs</li> </ul>	<ul style="list-style-type: none"> <li>○ Contribution to more sustainable public procurement</li> </ul>
Pilot 5		<ul style="list-style-type: none"> <li>○ Creation of missing infrastructure</li> <li>○ Creation of greater diversity/independence</li> <li>○ Typical marketing structure for ecologically produced food from the region</li> </ul>	<ul style="list-style-type: none"> <li>○ Storage facility built according to ecological standards</li> </ul>	<ul style="list-style-type: none"> <li>○ Contribution to the change in public procurement</li> </ul>

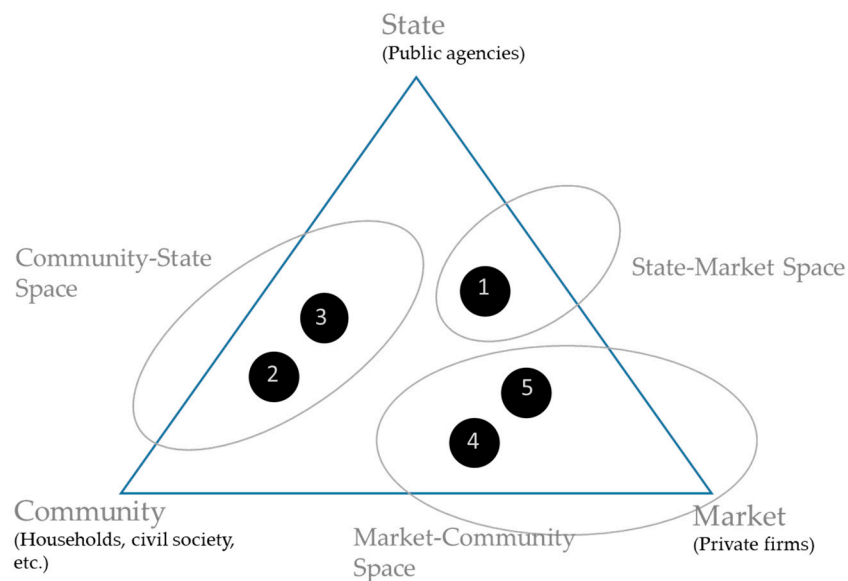
#### 4.1. Actor Dimension

In a second step, the pilots were classified by the mentors in the triangle. We applied the mapping to distinguish the current state in Figure 3, and the envisioned state in five years in Figure 2, to grasp the dynamic component of the transformative vision, being part of their initiative concept.





**Figure 2.** Expected situation in five years, mapped by mentors (current situation—black; situation in five years—grey; arrows show trends identified).



**Figure 3.** Current situation, mapped by mentors.

Regarding their current status, pilots 4 and 5 are initiated within the market-community space. Pilot 5 is a hybrid of market and community, as the initiative was developed by an existing organic farmers' organization formalized as a limited liability company. Therefore, following the argumentation by Defourny and Nyssens [62], they need to be separated from farmer organizations that chose to be formalized as agricultural cooperatives. This means they do not have such a strong community focus and democratic structure and, thus, need to be classified closer to the market space, as shown in Figure 3. Following the mentor's description, however, pilot 5 also does not operate solely in the market space, as it pursues multiple social and ecological goals, as described in Table 3. Interestingly, pilot 4 is also formalized as a limited liability company (abbr. in German: GmbH), and is classified more as a community space. However, the classification of this actor requires a look at the resource dimension, which will be explained in more detail in Section 4.2. Pilot 2 is located in the community-state space because it was initiated by parents seeking better nutrition for their children. They chose to formalize as an association, which shows that their project

is not aimed at maximizing profits but acts in the name of a social mission. Although not an active member in the initiative, the village's mayor is also a member of the association, showing his general support.

Pilot 3 is identified as difficult to fit into the ARA concept, due to its complexity and the fact that it has not yet settled on a formal organizational form. The project, initiated by the Freiburg Food Policy Council, involves numerous actors from all parts of the SFSC and further associations addressing education, all of whom are engaged voluntarily. In this case, again, the classification is linked to the resource dimension of the ARA concept as two members of the coordination team are funded by public money; this ultimately determined its assignment to the community-state space. Finally, pilot 1 is mapped in the state-market space because its primary actors are a mayor and a farmer. Together, they plan a small vendor shop in the community to sell regionally produced products under a new regional brand. This project also wants to cooperate with a charity organization and integrate people with disabilities. This would qualify this pilot to be classified in the core of the third sector, thus, integrating state, community, and market actors. However, since the charity organization is not mentioned as an active partner in this project phase, the mentor did not give so much weight to this actor. Another interesting point about pilot 1 is the choice of business model, namely a nonprofit limited liability company (abbr. in German: gGmbH). This means that the profits of the limited liability company must be used for charitable purposes and, in principle, may not be distributed to the shareholders.

Figure 2 illustrates the indicated position of the five pilots in five years. As not all the initiatives are currently operating, it will be of interest to see how the initiatives' situations might change once the projects have been implemented and are operating fully. Interestingly, two significant trends can be observed. Firstly, most initiatives are mapped more in the market space direction. Among other reasons, this development was justified because all the projects plan sustainable financing through the market. This means they want to finance their future by selling products or charging rent. Pilots 1, 2 and 3 are actively planning to sell products (cooked meals, own-brand products, regional food from the food hubs), pilot 4 is about income from renting its designed commercial kitchen, and pilot 5 is also planning to ensure that food can be stored longer and sold regionally throughout the year.

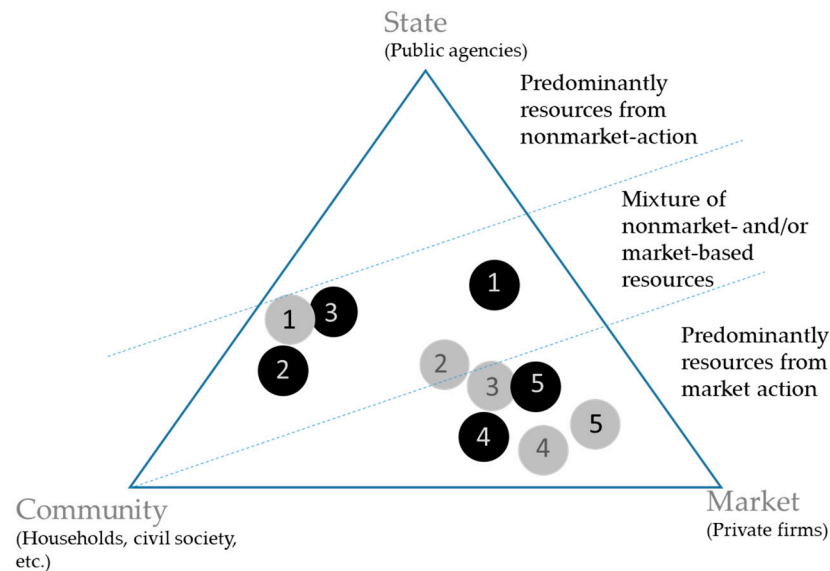
The other trend is noted only for pilot 1. Here, the mentor's choice was explained by the fact that the initiators plan to integrate the community more in the project in the future. The mayor wants to withdraw from the project in the long term. However, many volunteers have left because of the COVID-19 pandemic and need to be recruited again. The mentor also argued that this project should be financed with public funds to create feasible prices and allow affordable products for everyone. The mentor stated that as long as the globally dominant agricultural system is subsidized, smaller initiatives must also be supported so that they have a chance to build a counterweight to the dominant system.

#### 4.2. Resource Dimension

The results of the mentors' classifications of resource levels are presented next. The respective resources in the tabular summary are not broken down by the pilot so as not to disclose any of the pilots' potentially sensitive data. In addition, the aim of this evaluation is to see whether essential resources can generally be identified based on their classification. As can be seen in Table 4, this is confirmed. It also shows that the initiation of all pilots required the interaction of different actors and their resources, which emphasizes their hybrid character (Figure 4).

**Table 4.** Identified nonmarket and market resources necessary for initiating short food value chain cooperation models.

Nonmarket Resources		Market Resources
Resources Provided Mostly via Community Actors	Resources Provided via State Actors	Resources Provided via Market Actors
<ul style="list-style-type: none"> <li>○ Voluntary workers</li> <li>○ Donations</li> <li>○ Human capital spent next to job (people creating flyers for free)</li> <li>○ Social capital (people have large networks)</li> <li>○ Altruism</li> <li>○ Enthusiasm</li> <li>○ Using publicity of KOPOS to promote themselves</li> </ul>	<ul style="list-style-type: none"> <li>○ Public infrastructure</li> <li>○ Providing information</li> <li>○ Public investments in local infrastructure to support initiative</li> <li>○ Providing land</li> <li>○ Public financial resources to employ people</li> <li>○ Social Starter Program (extensions)</li> </ul>	<ul style="list-style-type: none"> <li>○ Providing land</li> <li>○ Providing financial resources to hire people</li> <li>○ Existing market activities, rent from housing, selling food collectively</li> </ul>

**Figure 4.** Integrating resource dimension (current situation—black; situation in five years—grey).

The focus is initially on the importance of market resources and illustrates the strategies of hybrid cooperation models. Pilots 4 and 5 rely on preexisting business relationships that probably form the financial basis for the projects. The producer group in pilot 5 already existed and operated in the market. The project to build its storage facility is based on this existing business model and the desire to expand it, while filling an identified gap in regional SFSCs. Pilot 4 was initiated by a non-listed regional stock corporation committed to sustainable business practices. Once the idea for pilot 4 reached a certain maturity level, the project was transferred to another subsidiary. Three positions were funded to implement the project, financed by market revenue from property rentals. The financial basis for the other three initiatives had to be established at the start of the project.

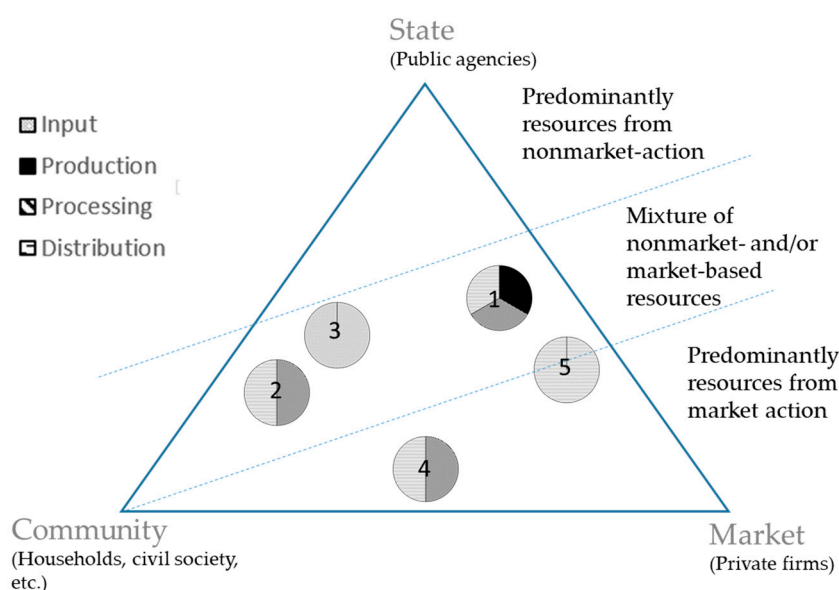
Another interesting finding is that land is provided by different market actors, such as in pilot 1. The project received a building site on the parking lot of a nationally operating supermarket chain, to build a container house for selling its products and processing oilseeds. In addition, the actors of pilot 1 and the supermarket do not see each other as competitors, but want to benefit from each other. The producer organization in pilot 5 is planning its storage site on the land of one of the producers and the main initiator.

The diversity and variety of SFSC cooperation models are also apparent when looking at the role of public funding opportunities, which is shown in Table 4. Three strategies could be identified here. In pilot 1, the local government is directly involved, as the main initiator is also the village's mayor. According to the mentors, this example is crucial, because local politicians and administrations committed to changing the agri-food system are still very rare. Less direct involvement can be found in pilot 2, where the local government is not the primary initiator, but provides the essential infrastructure for the project in the form of the public kitchen. The mayor is also a member of the association. In addition, in pilot 2, it was reported that the project would like to use public funds, but there are no suitable programs at the local, regional, national, or European level that the project could use. This example indicates that the pilots are in their early stages and not yet on the radar of funding agencies, which could change through a classification such as the ARA concept [58]. Pilot 3 illustrates the example wherein two coordination team members are financed by public funds/projects. This proved to be somewhat insufficient or unsustainable, as here, the initiative is dependent on public funds, which are often only paid for short periods of time. Therefore, a lot of time has to be invested in searching and applying for new funds, and continuity is insecure. This problem in social enterprises is often described in the literature [54,57].

Another essential resource mentioned was that of the existing social networks and relationships between public-, private-, and civil-society actors, which were created primarily due to the spatial proximity of the actors. Pilot 3, for example, was founded by the Food Policy Council, which was described as being very recognized and promoted by the region. Pilot 2 builds on a well-connected parents' initiative; the main protagonist, in particular, can draw on good contacts through her workplace in the citizens' council and her involvement in other networks.

#### 4.3. Action Dimension

We added a third dimension to capture the action dimension (Figure 5), to apply the classification approach to specific sectors and the urban-rural nexus. This was identified as necessary when screening the literature about urban-rural linkages and SFSCs. When analyzing SFSCs' potential and challenges, what is talked about from an organizational point of view is often not identified. The pilots used to evaluate the ARA concept demonstrate that none of them cover the whole SFSC at the moment, but they cover different components that might foster urban-rural linkages and sustainable transformation.



**Figure 5.** Integrating the action dimension.

Thus, as anticipated when integrating this dimension, the ARA concept allows us to show and analyze the diversity of SFSC value cooperation models, while simultaneously generalizing their activities, which helps to identify patterns. As shown in Figure 5, pilots 2 and 4 map the same parts of the SFSCs; this makes sense, as both initiatives aim to build a catering business. Remarkably, both pilots base their intentions on other resources and actors, hence, building different organizational structures; this shows that the same goals can be achieved with different strategies, depending on the actor capacities and resource availability in the urban-rural nexus.

## 5. Discussing the Potential and Challenges of the ARA Concept

This article was written to answer the question: How appropriate is the classification concept proposed in the social enterprise literature for capturing new cooperation models in urban-rural contexts in SFSCs? This question was conceptualized by introducing the ARA concept in Section 2, and evaluated by mapping different pilot projects initiated at the urban-rural interface. Furthermore, the application purposes of the ARA concept were evaluated by interviewing selected mentors. This resulted in determination of its potential and challenges, which will be discussed here.

### 5.1. ARA Concept Potential

In summary, it is clear that the actor dimension of the SFSC cooperation models investigated differ; this allows for the analysis of very different initiatives, and critically reflects the purpose of the ARA concept. In addition, mapping the actors involved within the initiatives showed that none of the cooperation models suit the conservative logic of market and state actors, demonstrating the need for a new classification tool to make them visible, as requested by Spyra et al. [37].

As the evaluation of the results shows, the ARA analytical concept allows the classification of partly very hybridized cooperation models; this shows the multi-governance nature of SFSC cooperation models and their need to be acknowledged by science and governments [58]. This fulfills the aspiration of the classification emerging in the social enterprise literature and shows its usefulness in this context. Furthermore, the ARA concept makes a more realistic classification possible in the context of SFSCs. For example, by integrating the action dimension, SFSC cooperation models could be analyzed regarding their specific action field and, hence, whether cooperation models aim to shorten the food supply chain by focusing on the input, production, processing, and/or distribution of food within the urban-rural nexus. By integrating the actor dimension, it could be shown that SFSC cooperation models emerge from different constellations of actors that do not necessarily originate from the agri-food system. By integrating the resource dimension, information could be gained regarding what resources are necessary and sufficient, for establishing new cooperation models that aim at multiple social missions outside the dominant, competitive global agri-food system. Hence, by including all the ARA dimensions that operate in the urban-rural nexus, a basis can be established that takes the discussion on the effects of SFSCs for sustainable transformation to a new level.

While a lot of discussion on SFSCs and their transformative potential in the producer-consumer nexus seems to be criticized and limited [30–33], we argue that focusing on the organizational level and territorial framing of the urban-rural nexus provides new insights. The latter includes local public, private and civil society actors and their resource highlights: firstly, successful strategies; secondly, the transformation pathways of urban-rural regions; and thirdly, a critical examination of actors' responsibilities to promote sustainable transformation.

Identifying successful strategies: Mapping different cooperation models for shortening the food supply chain according to the ARA principles has shown that the same fields of action, such as public procurement, can be successfully initiated via different strategies based on various resources and actor constellations (see Figure 5). Therefore, an important application of the ARA concept is seen in classifying a lot of successful hybrid



cooperation models. As a result, local governments, social entrepreneurs, or civil society can establish appropriate strategies to promote sustainable transformation in the agri-food sector, adapted to their urban-rural context and resource availability.

**Identifying sustainable trajectories.** The ARA concept allows the identification of development pathways for new cooperation models. This is demonstrated in Section 4.1 through the mapping of the current position of the emerging cooperation models and their potential positions in five years. This potential is of interest to scholars and practitioners seeking to understand how initiating social missions over time leads to functioning hybrid organizations that drive sustainable change. Interesting questions in this area include organizational development topics, such as upscaling sustainable organizations. In addition, the ARA concept makes it possible to examine the trajectories of cooperation models that have been little explored, such as the development of cooperation models in community-state space. These cooperation models are referred to by Rossi and Brunori [85] as “new food governance” and are classified by Doernberg et al. [34] as an essential pillar of current food governance research and policy.

**Identifying responsibilities.** Sustainable transformation is one of the most complex tasks of our time. A multilevel governance approach is required, including a wide range of actors to enable the transition to a sustainable agri-food system. Although policies are often established at a regional, national, and international level, the implementation of these policies and the fulfillment of objectives is usually the responsibility of local governments and actors. However, how such change is organized and who is responsible for the tasks is often unresolved. Despite the missing guidance, Barling et al. [86] argue that local governments have started to see the local agri-food system as essential for ensuring food security, the local economy, social integration, and environment protection. Large cities, especially, are already beginning to address the issue of food for sustainable transformation [34]. The ARA classification of hybrid cooperation models that link rural and urban actors on this journey shows the possible courses of action and starting points of the responsible government. It provides small farms with new ideas for more sustainable markets. It activates civil society to transform the agri-food system, as already described by Stierand [87]. In addition, Evers [67] highlights the importance of the social enterprise classification, as it helps local governments to acknowledge hybrid cooperation models and their potential. This might lead to new support programs, not just on a local level, but also on a multi-governmental level, showing the transformative potential of new hybrid cooperation models. This point is reflected in pilot 2, where the mentor expressed that they were urgently looking for public funding, but their cooperation models did not suit any taxonomy.

## 5.2. ARA Concept Challenges

Some challenges also came to light during the evaluation of the ARA concept that should be taken into account in the further development and application of the analytical concept. For example, one challenge in evaluating the ARA concept using the pilot information was that it is sometimes difficult to identify what the actors involved in the cooperation model are doing, what they intend to achieve with their cooperation model in the urban-rural nexus, and what the established hybrid cooperation model is actually performing. To exemplify this, pilot 3 is probably best described, at this time, as a network of many actors already working on or interested in food system change (Figure 5). The mentor pointed out that SFSCs are involved in all parts of the food value chain. However, this does not mean that the output and goals of the network include all the activities of the SFSC, and it is difficult to say, currently, what activities the cooperation model will carry out in the future. To specify, just because farmers are part of the cooperation model, it does not mean that the cooperation model produces anything.

This highlights another challenge that future applicants of the concept need to specify, namely, whether the ARA concept is used to classify emerging hybrid cooperation models or their output dimensions. In our case, all the pilots have been emerging initiatives. Thus,

actor and resource pooling are likely, or have already planned, to change when the project is realized; this partly explains the drive towards the market, as people will be employed and products offered (Figure 2). Thus, classifying them provides interesting knowledge about how resource pooling and cooperation emerge in an urban-rural nexus and, therefore, delivers potential points of entrance for local governments and other actors. However, measuring their effects on sustainable transformation at this stage is not possible, but might require already-operating cooperation models. Scholars such as El Ebrashi [47] and Haugh [88] suggest separating the impact of cooperation models from the output, wherein output refers to the direct product and services produced by the hybrid cooperation model. By contrast, impact refers to “sustainable long-term change” [47]. Thus, the classification model may help to map differences in actor constellations throughout the realization of a project and afterward. However, applicants need to define the stage of the project to allow the classification model analysis. Therefore, what can be compared and what cannot needs to be clear in order to compare different cooperation models.

Furthermore, identifying key actors within the project has sometimes been challenging, for different reasons. On the one hand, some initiatives appear to be very complex, such as a conglomerate of various stakeholders not agreeing on a formal business model that would assign board members or people in charge. On the other hand, pilots have one key person in charge of communication most of the time, which sometimes makes it difficult to access the internal working distribution and resource-pooling strategies of other stakeholders. Thus, in order to apply the ARA concept, in-depth case knowledge seems relevant to assigning stakeholders either to community, state or market space.

Finally, in this article, we separated the three ARA dimensions to enhance the paper’s structure. However, it has been noted that the resource dimension often defines the actors’ positions in the triangle. Thus, it is sometimes difficult to separate these dimensions. This point also includes the question of what kind of cooperation models to classify. As an example, when combining conventional companies with new hybrid cooperation models aimed at independent social missions, it is sometimes difficult to separate them based on the classification approach. Therefore, we suggest that additional parameters should also be further integrated to explore the potential for sustainable transformation. Without knowing the social mission of pilot 5, for example, it could be classified as a pure market actor. However, with the knowledge available, one can see that it is primarily about fulfilling a social mission through market-based practices and resources. This observation is common for social enterprises that aim to increase their social impact and not accumulate private actors’ profits [47,62]. Therefore, it is crucial to integrate this knowledge, as well as information about the historical and political context of the urban-rural nexus in which this hybrid cooperation model emerges; Defourny and Pestoff [58] and Evers [67] emphasize that these conditions also influence the transformative potential of the established cooperation model.

## 6. Conclusions

This article aims to extend and validate a classification approach from the social enterprise literature to classify new collaborative models that aim to shorten the food supply chain in an urban-rural context. The reason for this is the increasing pressure to promote sustainable transformation of the agri-food system and, in particular, the question of how SFSCs can contribute to this in an urban-rural nexus. Based on a literature review, a lack of studies that capture the complexity of SFSCs as super-sectoral and multi-actor entities emerged. In addition, the question of how SFSCs occur and what strategies lead to successful cooperation models has been little highlighted and classified, to serve as blueprints for other governments on the ways in which to foster sustainable transformation.

In order to bring a new perspective to this discussion, we argue that it requires an understanding of the landscape of actors in their territorial context, and of how these actors organize themselves to establish urban-rural cooperation models. There needs to be common ground that provides a basis for evaluating new cooperation models and their contribution to sustainable transformation. This basis can be provided by analyzing and

mapping existing initiatives within an urban-rural context by their actor, resource, and action dimensions. The actor and resource dimensions have been used successfully in the social enterprise literature to classify cooperation models aiming to fulfill a social mission. In addition, we added the action dimension, as we argue that according to what sector we look at, different action fields emerge; these are important to know to evaluate their sustainable transformation potential for the urban-rural nexus.

By applying this classification approach, we found that the established ARA concept offers several options for classifying cooperation models in the social economy and, thus, can provide practitioners, researchers and policymakers with a purposeful tool. First of all, the ARA concept demonstrates the diversity and complexity of SFSC cooperation models and is an important tool for making funders, policymakers, and other stakeholders aware of this diversity. Furthermore, the ARA concept allows the analysis of different resource-pooling strategies for establishing cooperation models. This will enable actors to select strategies according to their capabilities and learn from existing examples. In addition, the ARA concept can be used to visualize trajectories by mapping the evolution of emerging cooperation models. This enables actors to question and steer their actions, and to prioritize the social mission of their actions. Finally, the ARA concept helps to identify responsibilities. Governments can set up targeted programs to fill identified gaps, or support cooperation models in the right places by mapping the cooperation models in an urban-rural nexus.

Further research will help us to gain knowledge about the emergence of cooperation models, and address the output and impact dimensions of these cooperation models in terms of sustainable transformation. Therefore, it is essential to acquire in-depth case knowledge about the cooperation models, their actors, and the urban-rural nexus investigated.

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## References

1. Prosser, L.; Thomas Lane, E.; Jones, R. Collaboration for innovative routes to market: COVID-19 and the food system. *Agric. Syst.* **2021**, *188*, 103038. [CrossRef]
2. Rivera-Ferre, M.G.; López-i-Gelats, F.; Ravera, F.; Oteros-Rozas, E.; Di Masso, M.; Binimelis, R.; El Bilali, H. The two-way relationship between food systems and the COVID-19 pandemic: Causes and consequences. *Agric. Syst.* **2021**, *191*, 103134. [CrossRef]
3. Vittuari, M.; Bazzocchi, G.; Blasioli, S.; Cirone, F.; Maggio, A.; Orsini, F.; Penca, J.; Petruzzelli, M.; Specht, K.; Amghar, S.; et al. Envisioning the Future of European Food Systems: Approaches and Research Priorities after COVID-19. *Front. Sustain. Food Syst.* **2021**, *5*, 58. [CrossRef]
4. van Poeck, K.; Östman, L. Learning to find a way out of non-sustainable systems. *Environ. Innov. Soc. Transit.* **2021**, *39*, 155–172. [CrossRef]
5. *Farmers' Cooperatives and Sustainable Food Systems in Europe*; Gonzalez, R.A. (Ed.) Routledge: Abingdon, UK; Oxon, UK; New York, NY, USA, 2018; ISBN 978-1-351-21630-2.

6. Battisti, D.; Naylor, R. Historical Warnings of Future Food Insecurity with Unprecedented Seasonal Heat. *Science* **2009**, *323*, 240–244. [\[CrossRef\]](#)
7. Chiffolleau, Y.; Dourian, T. Sustainable Food Supply Chains: Is Shortening the Answer? A Literature Review for a Research and Innovation Agenda. *Sustainability* **2020**, *12*, 9831. [\[CrossRef\]](#)
8. Willett, W.; Rockström, J.; Loken, B.; Springmann, M.; Lang, T.; Vermeulen, S.; Garnett, T.; Tilman, D.; DeClerck, F.; Wood, A.; et al. Food in the Anthropocene: The EAT–Lancet Commission on healthy diets from sustainable food systems. *Lancet* **2019**, *393*, 447–492. [\[CrossRef\]](#)
9. Corona-López, E.; Román-Gutiérrez, A.D.; Otazo-Sánchez, E.M.; Guzmán-Ortiz, F.A.; Acevedo-Sandoval, O.A. Water-Food Nexus Assessment in Agriculture: A Systematic Review. *Int. J. Environ. Res. Public Health* **2021**, *18*, 4983. [\[CrossRef\]](#)
10. Kurian, M. The water-energy-food nexus. *Environ. Sci. Policy* **2017**, *68*, 97–106. [\[CrossRef\]](#)
11. Lu, Y.; Song, S.; Wang, R.; Liu, Z.; Meng, J.; Sweetman, A.J.; Jenkins, A.; Ferrier, R.C.; Li, H.; Luo, W.; et al. Impacts of soil and water pollution on food safety and health risks in China. *Environ. Int.* **2015**, *77*, 5–15. [\[CrossRef\]](#)
12. Schwarzenbach, R.P.; Egli, T.; Hofstetter, T.B.; von Gunten, U.; Wehrli, B. Global Water Pollution and Human Health. *Annu. Rev. Environ. Resour.* **2010**, *35*, 109–136. [\[CrossRef\]](#)
13. Renard, D.; Tilman, D. National food production stabilized by crop diversity. *Nature* **2019**, *571*, 257–260. [\[CrossRef\]](#) [\[PubMed\]](#)
14. Aguilar, J.; Gramig, G.G.; Hendrickson, J.R.; Archer, D.W.; Forcella, F.; Liebig, M.A. Crop Species Diversity Changes in the United States: 1978–2012. *PLoS ONE* **2015**, *10*, e0136580. [\[CrossRef\]](#) [\[PubMed\]](#)
15. van Dusen, E.; Taylor, J. Missing markets and crop diversity: Evidence from Mexico. *Environ. Dev. Econ.* **2005**, *10*, 513–531. [\[CrossRef\]](#)
16. Pimentel, D.; Burgess, M. Soil Erosion Threatens Food Production. *Agriculture* **2013**, *3*, 443–463. [\[CrossRef\]](#)
17. Poux, X.; Aubert, P.-M. An Agroecological Europe in 2050: Multifunctional Agriculture for Healthy Eating. *Find. Ten Years Agroecol. (TYFA) Model. Exerc.* **2018**, *9*, 18.
18. Lamine, C.; Renting, H.; Rossi, A.; Wiskerke, J.S.C.; Brunori, G. Agri-Food systems and territorial development: Innovations, new dynamics and changing governance mechanisms. In *Farming Systems Research into the 21st Century: The New Dynamic*; Darnhofer, I., Gibbon, D., Dedieu, B., Eds.; Springer: Dordrecht, The Netherlands, 2012; pp. 229–256, ISBN 978-94-007-4502-5.
19. Lamine, C. Sustainability and Resilience in Agrifood Systems: Reconnecting Agriculture, Food and the Environment. *Sociol. Rural.* **2015**, *55*, 41–61. [\[CrossRef\]](#)
20. Haysom, G. Integrating Food Sensitive Planning and Urban Design into Urban Governance Actions. *Urban Forum* **2021**, *32*, 289–310. [\[CrossRef\]](#)
21. Opitz, I.; Berges, R.; Piore, A.; Krikser, T. Contributing to food security in urban areas: Differences between urban agriculture and peri-urban agriculture in the Global North. *Agric. Hum. Values* **2016**, *33*, 341–358. [\[CrossRef\]](#)
22. Blay-Palmer, A.; Santini, G.; Dubbeling, M.; Renting, H.; Taguchi, M.; Giordano, T. Validating the City Region Food System Approach: Enacting Inclusive, Transformational City Region Food Systems. *Sustainability* **2018**, *10*, 1680. [\[CrossRef\]](#)
23. Opitz, I.; Specht, K.; Piore, A.; Siebert, R.; Zasada, I. Effects of consumer-producer interactions in alternative food networks on consumers' learning about food and agriculture. *Morav. Geogr. Rep.* **2017**, *25*, 181–191. [\[CrossRef\]](#)
24. Opitz, I.; Zoll, F.; Zasada, I.; Doernberg, A.; Siebert, R.; Piore, A. Consumer-producer interactions in community-supported agriculture and their relevance for economic stability of the farm—An empirical study using an Analytic Hierarchy Process. *J. Rural Stud.* **2019**, *68*, 22–32. [\[CrossRef\]](#)
25. Bartke, S.; Forster, T.; Githiri, G.; Jering, A.; Kago, J.; Schlimmer, S.; Sietchiping, R. The UN-Habitat Urban-Rural Linkages Guiding Principles: Assessment of the Adoptability to Topical Land Management Challenges in Germany, Kenya and Tanzania. In *International Yearbook of Soil Law and Policy 2019*; Ginzky, H., Dooley, E., Heuser, I.L., Kasimbazi, E., Kibugi, R., Markus, T., Qin, T., Ruppel, O., Eds.; Springer International Publishing: Cham, Switzerland, 2021; pp. 369–398, ISBN 978-3-030-52316-9.
26. Feenstra, G. Local food systems and sustainable communities. *Am. J. Altern. Agric.* **1997**, *12*, 28–36. [\[CrossRef\]](#)
27. Knickel, K.; Brunori, G.; Rand, S.; Proost, J. Towards a Better Conceptual Framework for Innovation Processes in Agriculture and Rural Development: From Linear Models to Systemic Approaches. *J. Agric. Educ. Ext.* **2009**, *15*, 131–146. [\[CrossRef\]](#)
28. Brunori, G. Local food and alternative food networks: A communication perspective. *Anthropol. Food* **2007**. [\[CrossRef\]](#)
29. Regulation (Eu) No 1305/2013 of the European Parliament and of the Council on Support for Rural Development by the European Agricultural Fund for Rural Development (EAFRD) and Repealing Council Regulation (EC) No. 1698/2005. *Off. J. Eur. Union* **2013**, *347*, 487–548.
30. Schmutz, U.; Kneafsey, M.; Sarrouy Kay, C.; Doernberg, A.; Zasada, I. Sustainability impact assessments of different urban short food supply chains: Examples from London, UK. *Renew. Agric. Food Syst.* **2018**, *33*, 518–529. [\[CrossRef\]](#)
31. Benis, K.; Ferrão, P. Potential mitigation of the environmental impacts of food systems through urban and peri-urban agriculture (UPA)—A life cycle assessment approach. *J. Clean. Prod.* **2017**, *140*, 784–795. [\[CrossRef\]](#)
32. Chiffolleau, Y.; Millet-Amrani, S.; Rossi, A.; Rivera-Ferre, M.G.; Merino, P.L. The participatory construction of new economic models in short food supply chains. *J. Rural Stud.* **2019**, *68*, 182–190. [\[CrossRef\]](#)
33. Georgiadis, P.; Vlachos, D.; Iakovou, E. A system dynamics modeling framework for the strategic supply chain management of food chains. *J. Food Eng.* **2005**, *70*, 351–364. [\[CrossRef\]](#)
34. Doernberg, A.; Horn, P.; Zasada, I.; Piore, A. Urban food policies in German city regions: An overview of key players and policy instruments. *Food Policy* **2019**, *89*, 101782. [\[CrossRef\]](#)



35. Ilieva, R.T. *Urban Food Planning*; Routledge: London, UK, 2016; ISBN 9781317331704.
36. Levkoe, C.Z.; Blay-Palmer, A. Food Counts: Food systems report cards, food sovereignty and the politics of indicators. *Can. Food Stud.* **2018**, *5*, 49–75. [\[CrossRef\]](#)
37. Spyra, M.; La Rosa, D.; Zasada, I.; Sylla, M.; Shkaruba, A. Governance of ecosystem services trade-offs in peri-urban landscapes. *Land Use Policy* **2020**, *95*, 104617. [\[CrossRef\]](#)
38. Binimelis, R.; Rivera-Ferre, M.G.; Tendero, G.; Badal, M.; Heras, M.; Gamboa, G.; Ortega, M. Adapting established instruments to build useful food sovereignty indicators. *Dev. Stud. Res.* **2014**, *1*, 324–339. [\[CrossRef\]](#)
39. Sonnino, R.; Tegoni, C.L.; de Cunto, A. The challenge of systemic food change: Insights from cities. *Cities* **2019**, *85*, 110–116. [\[CrossRef\]](#)
40. Moragues-Faus, A.; Sonnino, R. Re-assembling sustainable food cities: An exploration of translocal governance and its multiple agencies. *Urban Stud.* **2019**, *56*, 778–794. [\[CrossRef\]](#)
41. Edwards-Jones, G.; Milà i Canals, L.; Hounsome, N.; Truninger, M.; Koerber, G.; Hounsome, B.; Cross, P.; York, E.H.; Hospido, A.; Plassmann, K.; et al. Testing the assertion that ‘local food is best’: The challenges of an evidence-based approach. *Trends Food Sci. Technol.* **2008**, *19*, 265–274. [\[CrossRef\]](#)
42. Defourny, J.; Nyssens, M. The Emes Approach of Social Enterprise in a Comparative Perspective. In *Social Enterprise and the Third Sector*; Routledge: London, UK, 2014.
43. Pestoff, V. Collective Action and the Sustainability of Co-Production. *Public Manag. Rev.* **2014**, *16*, 383–401. [\[CrossRef\]](#)
44. Doherty, B.; Haugh, H.; Lyon, F. Social Enterprises as Hybrid Organizations: A Review and Research Agenda. *Int. J. Manag. Rev.* **2014**, *16*, 417–436. [\[CrossRef\]](#)
45. Hestad, D.; Tàbara, J.D.; Thornton, T.F. The role of sustainability-oriented hybrid organisations in the development of transformative capacities: The case of Barcelona. *Cities* **2021**, *119*, 103365. [\[CrossRef\]](#)
46. Wilson, F.; Post, J.E. Business models for people, planet (& profits): Exploring the phenomena of social business, a market-based approach to social value creation. *Small Bus. Econ.* **2013**, *40*, 715–737. [\[CrossRef\]](#)
47. El Ebrashi, R. Social entrepreneurship theory and sustainable social impact. *Soc. Responsib. J.* **2013**, *9*, 188–209. [\[CrossRef\]](#)
48. Zoll, F.; Specht, K.; Siebert, R. Alternative = transformative? Investigating drivers of transformation in alternative food networks in Germany. *Sociol. Rural.* **2021**. [\[CrossRef\]](#)
49. Zoll, F.; Specht, K.; Opitz, I.; Siebert, R.; Piore, A.; Zasada, I. Individual choice or collective action? Exploring consumer motives for participating in alternative food networks. *Int. J. Consum. Stud.* **2018**, *42*, 101–110. [\[CrossRef\]](#)
50. Ruiz-Almeida, A.; Rivera-Ferre, M.G. Internationally-based indicators to measure Agri-food systems sustainability using food sovereignty as a conceptual framework. *Food Sec.* **2019**, *11*, 1321–1337. [\[CrossRef\]](#)
51. Creamer, E.; Eadson, W.; van Veelen, B.; Pinker, A.; Tingey, M.; Brauholtz-Speight, T.; Markantoni, M.; Foden, M.; Lacey-Barnacle, M. Community energy: Entanglements of community, state, and private sector. *Geogr. Compass* **2018**, *12*, e12378. [\[CrossRef\]](#)
52. Rhodes, R.A.W. *Understanding Governance: Policy Networks, Governance, Reflexivity and Accountability*; Open University Press: Buckingham, UK, 1997; ISBN 9780335197279.
53. Defourny, J.; Nyssens, M.; Brolis, O. *Mapping and Testing Social Enterprise Models across the World: Evidence from the “International Comparative Social Enterprise Models (ICSEM) Project”*; ICSEM Working Papers No. 50; Belgian Science Policy and EMES: Brussels, Belgium, 2019.
54. Martens, K.; Wolff, A.; Hanisch, M. Understanding social innovation processes in rural areas: Empirical evidence from social enterprises in Germany. *Soc. Enterp. J.* **2020**, *203*. [\[CrossRef\]](#)
55. Polanyi, K. *The Great Transformation*; Beacon: Boston, MA, USA, 1944.
56. Defourny, J.; Nyssens, M. Social enterprise in Europe: At the crossroads of market, public policies and third sector. *Policy Soc.* **2010**, *29*, 231–242. [\[CrossRef\]](#)
57. Evers, A.; Laville, J. (Eds.) *The Third Sector in Europe*; Edward Elgar Publishing Limited: Cheltenham, UK; Northampton, UK, 2004; ISBN 1-84376-400-8.
58. Defourny, J.; Pestoff, V. Towards a European Conceptualization of the Third Sector. In *Accountability and Social Accounting for Social and Non-Profit Organizations*; Costa, E., Parker, L.D., Andraus, M., Eds.; Emerald Group Publishing Limited: Bingley, UK, 2014; pp. 25–87, ISBN 978-1-78441-005-6.
59. Davies, I.; Chambers, L. Integrating hybridity and business model theory in sustainable entrepreneurship. *J. Clean. Prod.* **2018**, *177*, 378–386. [\[CrossRef\]](#)
60. EU. Social Enterprises. Available online: [https://ec.europa.eu/growth/sectors/proximity-and-social-economy/social-economy-eu/social-enterprises\\_en](https://ec.europa.eu/growth/sectors/proximity-and-social-economy/social-economy-eu/social-enterprises_en) (accessed on 12 April 2022).
61. Kerlin, J.A. Social Enterprise in the United States and Europe: Understanding and Learning from the Differences. *Voluntas* **2006**, *17*, 246–262. [\[CrossRef\]](#)
62. Defourny, J.; Nyssens, M. Fundamentals for an International Typology of Social Enterprise Models. *Voluntas* **2017**, *28*, 2469–2497. [\[CrossRef\]](#)
63. Bauwens, T.; Huybrechts, B.; Dufays, F. Understanding the Diverse Scaling Strategies of Social Enterprises as Hybrid Organizations: The Case of Renewable Energy Cooperatives. *Organ. Environ.* **2020**, *33*, 195–219. [\[CrossRef\]](#)
64. Gui, B. The economic rationale for the “third sector”. Nonprofit and other noncapitalistic organizations. *Ann. Public Coop. Econ.* **1991**, *62*, 551–572. [\[CrossRef\]](#)



65. Pestoff, V.A. Third sector and co-operative services—An alternative to privatization. *J. Consum. Policy* **1992**, *15*, 21–45. [\[CrossRef\]](#)
66. Laville, J.; Young, D.; Eynaud, P. (Eds.) *Civil Society, the Third Sector and Social Enterprise: Governance and Democracy*; Routledge Frontiers of Political Economy: Oxford, UK, 2015; ISBN 9781138673502.
67. Evers, A. Part of the welfare mix: The third sector as an intermediate area. *Volunt. Int. J. Volunt. Nonprofit Organ.* **1995**, *6*, 159–182. [\[CrossRef\]](#)
68. Benz, A. (Ed.) *Governance—Regieren in Komplexen Regelsystemen: Eine Einführung*; VS Verlag für Sozialwissenschaften: Wiesbaden, Germany, 2004; ISBN 978-3-531-90171-8.
69. Mundler, P.; Laughrea, S. The contributions of short food supply chains to territorial development: A study of three Quebec territories. *J. Rural Stud.* **2016**, *45*, 218–229. [\[CrossRef\]](#)
70. Ilbery, B.; Maye, D. Alternative (Shorter) Food Supply Chains and Specialist Livestock Products in the Scottish–English Borders. *Environ. Plan. A* **2005**, *37*, 823–844. [\[CrossRef\]](#)
71. Kneafsey, M.; Dowler, E.; Lambie-Mumford, H.; Inman, A.; Collier, R. Consumers and food security: Uncertain or empowered? *J. Rural Stud.* **2013**, *29*, 101–112. [\[CrossRef\]](#)
72. Forssell, S.; Lankoski, L. The sustainability promise of alternative food networks: An examination through “alternative” characteristics. *Agric. Hum. Values* **2015**, *32*, 63–75. [\[CrossRef\]](#)
73. Aubry, C.; Kebir, L. Shortening food supply chains: A means for maintaining agriculture close to urban areas? The case of the French metropolitan area of Paris. *Food Policy* **2013**, *41*, 85–93. [\[CrossRef\]](#)
74. Renting, H.; Marsden, T.K.; Banks, J. Understanding Alternative Food Networks: Exploring the Role of Short Food Supply Chains in Rural Development. *Environ. Plan. A* **2003**, *35*, 393–411. [\[CrossRef\]](#)
75. Thünen, J. *Der Isolierte Staat in Beziehung auf Landwirthschaft und Nationalökonomie: Untersuchungen über den Einfluß, den die Getreidepreise, der Reichtum des Bodens und die Abgaben auf den Ackerbau ausüben*; Perthes: Hamburg, Germany, 1826.
76. Inwood, S.M.; Sharp, J.S. Farm persistence and adaptation at the rural–urban interface: Succession and farm adjustment. *J. Rural Stud.* **2012**, *28*, 107–117. [\[CrossRef\]](#)
77. Akimowicz, M.; Cummings, H.; Landman, K. Green lights in the Greenbelt? A qualitative analysis of farm investment decision-making in peri-urban Southern Ontario. *Land Use Policy* **2016**, *55*, 24–36. [\[CrossRef\]](#)
78. van der Schans, J. Urban agriculture in the Netherlands. *Urban Agric. Mag.* **2010**, *1*, 40–42.
79. Monaco, F.; Zasada, I.; Wascher, D.; Glavan, M.; Pintar, M.; Schmutz, U.; Mazzocchi, C.; Corsi, S.; Sali, G. Food Production and Consumption: City Regions between Localism, Agricultural Land Displacement, and Economic Competitiveness. *Sustainability* **2017**, *9*, 96. [\[CrossRef\]](#)
80. Cretella, A. Urban Food Strategies. Exploring Definitions and Diffusion of European Cities’ Latest Policy Trend. In *Metropolitan Ruralities*; Andersson, K., Sjöblom, S., Granberg, L., Ehrström, P., Marsden, T., Eds.; Emerald Group Publishing Limited: Bentley, UK, 2016; pp. 303–323, ISBN 978-1-78560-797-4.
81. Schäpke, N.; Bergmann, M.; Stelzer, F.; Lang, D.J.; Editors, G. Labs in the Real World: Advancing Transdisciplinary Research and Sustainability Transformation: Mapping the Field and Emerging Lines of Inquiry. *GAIA Ecol. Perspect. Sci. Soc.* **2018**, *27*, 8–11. [\[CrossRef\]](#)
82. Moschitz, H.; Oehen, B.; Rossier, R. Regionaler Konsum in Freiburg—Anteil von Lebensmitteln regionalen Ursprungs am Gesamtverbrauch der Stadt Freiburg. 2016. Available online: [https://www.freiburg.de/pb/site/Freiburg/get/pa-rams\\_E138525682/1045847/Regional-Konsum.pdf](https://www.freiburg.de/pb/site/Freiburg/get/pa-rams_E138525682/1045847/Regional-Konsum.pdf) (accessed on 14 March 2022).
83. Statistisches Landesamt Baden-Württemberg. Online Zugang zu Regionaldaten. Available online: <https://www.statistik-bw.de/Landwirtschaft/> (accessed on 14 March 2022).
84. Beckmann, J.; Volz, P.; Vecera, L. *Situationsanalyse. Handlungsfeld “Kurze Wertschöpfungskette” Freiburg. KOPOS Arbeitspapier*. Freiburg i.Br. 2021. Available online: [https://www.kopos-projekt.de/sites/default/files/2021-09/Situationsanalyse%20Kurze%20Version%20HF%20Freiburg\\_210916.pdf](https://www.kopos-projekt.de/sites/default/files/2021-09/Situationsanalyse%20Kurze%20Version%20HF%20Freiburg_210916.pdf) (accessed on 14 March 2022).
85. Rossi, A.; Brunori, G. Towards a New Food Governance: Exploring the Development of an Integrated Urban Food Strategy. Pisa. 2015. Available online: [https://www.fao.org/fileadmin/templates/ags/docs/MUFN/CALL\\_FILES\\_EXPERT\\_2015/CFP1-18\\_Full\\_Paper.pdf](https://www.fao.org/fileadmin/templates/ags/docs/MUFN/CALL_FILES_EXPERT_2015/CFP1-18_Full_Paper.pdf) (accessed on 17 February 2022).
86. Barling, D.; Lang, T.; Caraher, M. Joined-up Food Policy? The Trials of Governance, Public Policy and the Food System. *Soc. Policy Admin.* **2002**, *36*, 556–574. [\[CrossRef\]](#)
87. Stierand, P. Stadtentwicklung mit dem Gartenspaten: Umriss einer Stadternährungsplanung. Dortmund. 2012. Available online: <https://speiseraeume.de/downloads/SPR-Stadternaehrungsplanung-Stierand.pdf> (accessed on 17 February 2022).
88. Haugh, H. Social Enterprise: Beyond Economic Outcomes and Individual Returns. In *Social Entrepreneurship*; Mair, J., Robinson, J., Hockerts, K., Eds.; Palgrave Macmillan UK: London, UK, 2006; pp. 180–205, ISBN 978-1-349-54553-7.