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## The Role of Meso-spaces for the Sustainable Transformation of Food Systems

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# The role of meso-spaces for the sustainable transformation of food systems.

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## 1. Introduction

A new report from the Intergovernmental Panel on Climate Change (IPCC) highlights the current climate change risks that the world is facing, and it makes clear society and policy are acting too slowly to changes which seem to be increasing rapidly (IPCC, 2019). The same report (ibid.) shows how agri-food systems have one of the highest impacts on pollution and greenhouse emissions at world level.

In order to sustainably meet the increasing demand for food, the agri-food systems will need to transition away from the dominant industrial agriculture paradigm (El Bilali, 2018) to one of sustainable agriculture that “conserves land, water, and plant and animal genetic resources, and is environmentally non-degrading, technically appropriate, economically viable and socially acceptable” (FAO, 2012).

The literature of sustainability in food systems usually takes two general approaches to the topic. One sees a technological solution to sustainability: this approach is referred to as agro-industrial paradigm, and it’s based on agricultural modernization, industrialization and standardisation of food production, and the globalization of food markets (Renting and Wiskerke, 2010). In this approach, technological processes are favoured over social innovation. On the opposite end, there is the integrated territorial paradigm (Kristensen et al. 2016; Lamine et al., 2012), which sees the solution in reinforcing the capacity of agri-food systems in the valorisation of specific territorial embeddedness and social relations. This approach takes a holistic view towards food systems, acknowledging their interconnectedness with other local characteristics, such as nature and landscape conservation,

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tourism, care, and education (Renting et al., 2008; Van der Ploeg and Marsden, 2008).

The territorial approach is in stark contrast with the standardized and place-less agro-industrial approach, but it is facing two criticisms. First, as Lamine et al. (2012) show, territorial short-food chains (i.e. diverse food networks and grassroots innovations), though usually characterized by higher sustainability performances, sometimes fail to play a leading role for systemic transitions: these initiatives in fact remain relatively small and localized, and dissemination models like up-scaling or out-scaling (i.e. multiplication) at local level are not sufficiently defined.

Secondly, existing local sustainability initiatives usually have developed outside policy frameworks or in opposition to current agri-food systems, while governance tools and methods might be useful to bridge this void (Lamine et al., 2012).

In the past, market and public regulation have always been considered as the most important governance tools, but civil society has usually been left out of the picture (Lamine, 2015). The involvement and role of civil society has sometimes been reduced to atomistic passive purchasers and consumers of food products (Renting et al., 2012). In similar fashion, farmers were largely considered individualized recipients of state regulations and price-takers in the markets. This model has been put under great pressure in the last two decades: in fact, the emergence of small concentrated market parties, market liberalization and privatization, the emergence of market empires beyond control of the states, and the increasing domination of private corporate interests has pushed several actors within the food systems to look for diverse modes of production and distribution. Now, the potential roles and responsibilities of the governments are changing, and new opportunities are emerging: at local and regional levels, for instance, we can find new governance tools for supporting localized sustainable food systems and multifunctional forms of agriculture within rural development measures.

In this context, sustainability transitions appear to be a complex process that entails a large set of actors at different geographical scales. Scholars and practitioners are starting to acknowledge the fact that one solution or one side alone cannot have systemic change or cannot capture the full complexity of the experiences in the agri-food systems. Policies, civic engagement and activism, firms' transformations are all equally important and need to be brought forward in a framework of intelligent planning. This vision, as highlighted by Lamine et al. (2012), also allows to adopt an integrated vision, which focuses on relations developing among all relevant actors in the new food environment. This new approach can be considered

multi-scale in the sense that, while acknowledging that some important legal frameworks and policy decisions are taken at national level, it also acknowledges the importance of lower systems: lower administrative and local levels are fundamental for policymaking and, especially, for implementation and impactful action.

For sustainability transitions to happen, it is clear that new forms of territorial arrangements are then necessary without necessarily being considered in stark contrast to the global standardised food players. Some authors have highlighted how sustainable food communities (Blay-Palmer, 2010) enhance the valorisation and creation of social capital, and, together with participatory and empowering processes, they re-create the necessary spaces for sustainability transitions (Pugliese et al., 2015). A sustainable food community approach has also been taken by FAO, with the City-Region Food Systems (CRFS) approach: it has been developed with the key aim of fostering the development of resilient and sustainable food systems within urban centres, peri-urban and rural areas surrounding cities, by strengthening rural-urban linkages (Dubbeling et al., 2017).

In order to go beyond the two mentioned criticisms of local food sustainable initiatives (to be rather small and developed outside policy frameworks or in opposition to current agri-food systems) we argue in this paper for the need of new spaces at local level where community members, professionals, and government get together to share knowledge, deliberate, and collectively devise place-based strategies to address complex food systems issues (Bassarab et al., 2019).

In these meso-spaces, the sustainable or diverse organizational routines of the actors are shared and the cooperation among participants arises. Given the very complex nature of the changes needed, we believe that to completely understand these experiences, we need to integrate different concepts from environmental governance (Biermann et al. 2009; Driessen et al. 2012; Patterson et al., 2017; Andree et al., 2019), grassroots innovations (Seyfang and Smith, 2007), and diverse economies (Gibson-Graham, 2006 and 2008; Rosol, 2020).

The paper is structured as follows: section two defines sustainability and introduces the role of space for sustainability transformations; section three proposes a review of literature and a combination of frameworks for analysis; section four presents a brief critical analysis of some existing meso-spaces of transformation towards sustainability of local food initiatives in Italy; section five reports an outlook on research perspectives and provides some final remarks.

## **2. A space-based sustainable food**

Studying the sustainability transformations of food systems is not an easy task. A simplified perspective of sustainability in some cases has been to consider only the environmental performances of the farming activities (e.g. polluting emissions or the use of natural resources) (Pacini et al., 2003), but there have been also attempts to improve the impact measures by looking at the full life cycle of the food, at first by using a Life Cycle Assessment (Van Der Werf and Petit, 2002) and later by taking the perspective of a complex commodity chain, the so called “from farm to fork” approach (Barbera et al., 2014), which gives importance to activities going over production and distribution and bringing in the picture the consumption activities.

What needs to be stressed here, though, is that at times the sustainable transformation of food systems produces unwanted consequences, with retailers appropriating consumers’ demands only selectively (Friedmann, 2005) and building market solutions that respond only to their economic interests (Marsden 2000), rather than on broader social and environmental sustainability needs. This process is known as conventionalisation in the organic sector, and it is still debated whether such dynamics contribute to a transformation of the agri-food system towards more sustainability or they reinforce lock-in effects (Darnhofer et al., 2010). It follows that local and sustainable food could therefore be managed as a niche market, with their key motivations to display such products being just strategic (e.g. higher profitability) rather than ethical and sustainable (Bui et al., 2019).

For this reason, several authors (Allen, 1993; Ericksen, 2008; Blay-Palmer and Koc, 2010) highlight how the process towards sustainability can and must also become a powerful tool to reach a democratic and just food system, making sure that practices along the supply and value chain are avoiding exploitation of people and natural resources, while striving to enhance emancipation of and opportunities for society as a whole in an equal way.

Along these lines, the association La Via Campesina (1996) has defined the concept of food sovereignty: the people who produce, distribute, and consume food should also control the mechanisms and policies of food production and distribution. This concept has been developed together with the re-emergence of the concept of agroecology: the term, which first appeared after WWII (Tischler, 1965), has been brought again to prominence in the past two decades and it defines “the application of ecological concepts and principles to the design and management of sustainable agroecosystems” (Altieri, 2018). This definition explicitly includes processes of continuous transition towards the ecology of food

systems and the adaptation to the cultural, ecological and social specificities of the local places and it puts governance, power and democracy at its centre: it emphasizes social and political aspects like autonomy, community-self organization, and bottom-up place-based organizing (Anderson et al., 2019).

FAO (2018) and Anderson et al. (2019) highlight how, within agroecology, the social, cultural and political dimensions emphasizing community-led governance of transformations are as important as practical practices of farming. Therefore, governments, scholars and practitioners are connecting agroecology to the notion of food sovereignty and just transitions, and they are basing this approach to the re-affirmation of the right to food, and the rights of the peasants, eaters and food producers. With the agroecological approach taking foot, there is a departure from profit, technology transfer and climate smart agriculture, and a closer attention to the relationships between people and nature, and to the rights of the food actors (Anderson et al., 2019).

Measurable sustainability characteristics for the agri-food products and services, in the past, have been summarized in formal governance and guarantee models governed by the market and the public actors (either through product labels or policies), but in the absence of reliable information and lack of trust in globalized chains, local food purchasing has also become a strategy for several consumers to keep control of the consequences of their purchases: "local" has become associated with organic, seasonal, nutritious and natural (Brunori and Galli, 2016). It is clear then that local has come out as an alternative model to global food supply, by having small, diverse and sustainable characteristics as opposed to big, standardized and destructive natural resources.

Also Lamine (2015) shows how sustainability has been linked to re-localization, especially when related to the sustainability of alternative food networks: more local, in fact, would mean less physical distance with subsequent less environmental impact, fewer intermediaries and more added value with better conditions for farmers, and finally less social distance between producers and consumers, with less social links and more sustainability. At the same time, we need to be aware of not falling into what some authors are calling the "local trap". The view that "local equals sustainable", without further questioning to what lies behind the local, has been challenged by several scholars (Brunori and Galli, 2016; Born and Purcell, 2006): in fact the growth of the local food, together with an increasing concern for sustainability and suspicion of industrial food, has stimulated big players to take the issue of sustainability more serious, but also, on the other side, to appropriate the features originally introduced by

local actors. This has brought local and global chains to converge, therefore also posing a threat to small niche players and local chains.

The spatial sense of shortness has been an object of study by many scholars, (Blay-Palmer and Koc, 2010; Marsden and Sonnino, 2012; Lang et al., 2013) all highlighting how, although pressures are at global level, perspectives in the food systems need to be implemented looking at localities and regions. Therefore, the understanding is growing that place-based solutions would need to be considered to identify and respect local needs, and mobilize the appropriate resources, while on the other hand there is also a need to look at meta-scale structures for facilitating the necessary change (Blay-Palmer and Koc, 2016).

While one of the principal reasons for shortening and localising food chains would be to reduce the distance food travels between production and consumption, therefore increasing the environmental benefits, also economic and social reasons need to be taken into consideration (Seyfang, 2006). As globalized and industrial food systems usually separate economic transactions from social and environmental contexts, the new economy of food should favour socially embedded economies of place.

A space-based sustainable food could make sure that embeddedness of economic activities within social rules and norms highlights the aspects of the local context (Bloom and Hinrichs, 2011): social relationships might then be able to modify and mitigate the rules of a merely profit-oriented economic logic, which can at times disadvantage smaller farmers in the market, and they might create new economic spaces for sustainability transitions to happen. Food can be re-socialized and re-spatialized, and the consumer can make additional value judgements about what they buy, drawing from their knowledge, experience, and perceived imagery (Renting et al., 2003). It is therefore in this sustainability context that local food spaces of transformation play important and relevant roles. Place-based solutions are indeed strictly related to sustainability activities of food production, distribution, and consumption.

### **3. Territorial spaces of transformation**

A meso-level place-based sustainability goes beyond the local scale as it entails also social relations and the governance of the territorial spaces of transformation. Indeed, with governance we refer to the structures, processes, rules and traditions that determine how different actors make decisions and share power, exercise responsibility and ensure accountability (Patterson et al., 2017; Folke et al., 2005; Lebel et al., 2006; Cundill and Fabricius, 2010).

By understanding the decision-making rules and dynamics within these meso-spaces of transitions, we will be better able to disentangle also their characteristics and we will be able to define them for what they really are. Following Driessen et al. (2012), we can analyse territorial spaces of transformation as spaces of governance, where civil society and private firms are participating as main actors, with the optional participation of the state and where different rules for governing, deliberation and legitimation might apply. Then it is clear here that for “meso-spaces” we intend relational spaces positioned between the individuals, firms and institutions and the global (markets).

In other words, meso-spaces are spaces that would allow actors to coordinate and cooperate for the production and/or distribution of sustainable food. Along these lines, we might adopt the governance engagement continuum from Andree et al. (2019), as the continuum allows to range from multi-stakeholdership to polycentric governance (incl. self-governance).

These meso-spaces can be regarded as either spaces for transformation of food production towards environmentally sustainable practices or also as local spaces of transformation for the creation of diverse economies (e.g. solidarity or post-capitalist). Therefore, together with the dynamics, rules, and impacts, it will be fundamental to understand the motivations and characteristics of the actors participating in these experiences.

Arguing in this paper about spaces of transformation, it could be insightful to refer to the literature on Grassroots Innovations (GIs) (Seyfang and Smith, 2007). Taking the definition of GIs from Seyfang and Smith (2007), as ‘innovative networks of activists and organisations that lead bottom-up solutions for sustainable development’, GIs usually operate in civil society arenas and involve activists which experiment with social innovations, by also using green technologies and techniques. GIs experiences in the food systems can be Solidarity Purchase Groups (SPGs), Community Supported Agriculture (CSA), farmers’ markets, community gardens, permaculture and agroecological farms (Rossi and Brunori, 2010; Altieri, 2018).

In GIs within food systems, innovation is undertaken by networks of people working towards a common goal: the participants and actors in fact use innovation and creative activities towards a transformation of markets, societies and communities for social justice and environmental resilience (Smith and Stirling, 2018). GIs in food systems try to achieve sustainable development with actions from the bottom-up and try to enable people to express their alternative green and socially progressive values for a sustainability improvement, although on smaller scales. In fact, GIs are usually representing the niches in the wider (unsustainable) systems.



Chiffolleau and Loconto (2018) highlight the fact that GIs within the food systems are an intersection between individual concerns (healthy and safe food) and social and civic issues (environmental and social concerns), and that social innovation has been progressively building as an alternative to the linear and centralized model of innovation, which is usually brought forward by technological innovation. In grassroots movements, then, innovation is open, democratic and participatory. In addition to social needs, Seyfang and Smith (2007) bring the ideological commitment to alternative (compared to the traditional and conventional system) ways of producing, distributing and consuming food as another reason for creating and participating in GIs.

Although GIs have different institutional forms, like cooperatives, voluntary associations, mutual, informal community groups or social enterprises, their resource base is pluralistic, usually with a limited commercial activity and with a high degree of mutual exchanges (Seyfang and Smith, 2007). GIs then are considered both innovations and social movements which produce knowledge in unconventional ways (Smith et al., 2016). In general, it has been showed that the cultural and social history (presence of social capital, liberal places, etc.) of a certain community or region affects the emergence of GIs (Nicolosi et al., 2018), which at the same time arise in reaction to perceived social injustices and environmental problems (Smith et al., 2014) and form spaces for debate and construction of different pathways to sustainable futures.

By trying to do things in a different way, GI movements are highlighting the institutional, political and economic injustices in conventional systems (Gibson-Graham, 2008). Smith et al. (2014) also make clear how GIs in general should be valued for the plural and inclusive innovation spaces they created, therefore being an inspiration for policymakers which are willing to transform the territory towards a more sustainable one. For Feola and Nunes (2014) the success of GIs for sustainability can be measured on factors like social links created within the communities, contribution to improved environmental performance, empowerment, social function, social connectivity and trajectories, therefore making it difficult to measure success just on hard numerical dimensions.

GIs, though, have also been criticized for their constant struggle between local-scale appropriateness and the needs or desires to have a wider diffusion and systemic impact in society (Hossain, 2016; Smith et al., 2016). A common problem for GIs has been whether to replicate (out-scale) or to grow (up-scale), posing problems with the very definition of GI and their activists' ideological principles (Smith et al., 2014), while facing critiques for being solutions for socially just principles within niches without trying to change the wider structures and systems in society which are the

causes of injustices. With their reliance on volunteers and low levels of financial resources, GIs at times have also seen limited ability to promote innovation in the wider community and have seen struggles with learning processes (Seyfang and Longhurst, 2013).

It is important to highlight here that GIs still have a very important role in developing and selecting alternatives to the traditional (usually unsustainable) systems and they are spaces for adoption of new technologies and practices (Ornetzeder and Rohracher, 2013). In fact, GIs have the experience and knowledge to understand what solutions might work in the local community, and which activities could be important to implement for the local population to adopt them (Seyfang and Smith, 2007). Church and Elster (2002) have also identified how GIs increase environmental awareness, educate participants, change the attitude of local policymakers and develop new ways of working towards sustainable development.

What the GIs usually create is a multiplicity and diversity in alternative food networks and short food supply chains, creating and maintaining a new ethical foodscape (Rossi, 2017): in fact, GIs bring a re-appropriation of the collective-social dimension of the production-consumption practices, having a significant impact at cultural and operational level in the territories where they are active. In other words, GIs can be seen as pioneers in social innovation to give new value to food: the community approach of GIs is bringing a new vision, which re-embeds economics within higher social purposes. Furthermore, GIs are seen (Rossi, 2017) as influencing the local producers towards looking at food not anymore as mere commodity, but as common good, highly integrated in the community.

In this way, a new social pact can be created through activism from the GIs actors and the local producers and other actors, where also new social meanings are created, while still maintaining economic viability: the social pact is implemented through governance and coordination mechanisms. Notwithstanding the size of the impact at local level or in the wider system, GIs are still matching most of the characteristics of the definition of 'sustainable' and they provide a tool for local people to reconnect with ecological experiences and behaviours, to feel empowered and aware of sustainability issues and to experiment with potential solutions which may result in some kind of social behavioural change, at times generating trickle-down effects also at organizational levels and later on in the institutions (social norms) of the communities where they operate (Gernert et al., 2018). The question still remains on how to allow for lessons learnt in a GI initiative to spread, diffuse and multiply at local level. Several authors in fact (Ornetzeder and Rohracher, 2013; Boyer, 2018; Köhler et al., 2019) have highlighted that more research is needed on how local

innovations undergo scale shifts and escape niche stasis. Also, more research is necessary on understanding how GIs become connected with broader societal change aspirations (Schot, 2016; Köhler et al., 2019).

It is therefore interesting to understand whether territorial meso-spaces for food transformation represent an opportunity for successful GI experiences to be strengthened and spread further to a wider audience at local level. In other words whether the meso-spaces are able to work as a “solution space” (Haasnoot et al., 2020) able to accelerate prevention and adaptation action to climate change. On the other hand, GIs represent the fuel for territorial meso-spaces to become transformative through processes of replication and up-scaling.

Although the Sustainability Transitions literature have tried to have a broader approach to sustainability transitions, focusing on what would be the conditions for transitions to happen, with transitions defined as ‘fundamental social, technological, institutional and economic change from one societal regime or dynamic equilibrium to another’ (Kemp and Rotmans, 2004), they have sometimes been lacking a deeper analysis on the role of civil society, and especially of GIs (Köhler et al., 2019). Furthermore, they have been missing a critical or challenging stand towards the current economic system (i.e. capitalism), therefore rather giving the system for granted or as an external unchangeable factor (Feola, 2019). Köhler et al. (2019) have also recognized the necessary future research directions for sustainability transitions theories, and highlighted how, among other topics, the operationalization of system change and the roles of inclusive innovation need to be further looked into, together with a more detailed geographical analyses of potential transitions and transitions in the making, especially with a focus on the role of place-based sustainability-oriented experimentations.

Our work is therefore trying to address these shortcomings, by looking at meso-spaces as intermediaries for the scaling of sustainability transformations and diverse economies with new lenses. This also follows on the work done by Smith (2007), who highlighted how the role of intermediaries is important in creating connections between niches and regimes: intermediaries are defined as a part of culture, society, knowledge, labour, market, planning and welfare, and they could have various roles, among which, for example, initiating projects or sharing information among various groups. Some scholars (Hargreaves et al., 2013; Hossain, 2016) also called for the role of intermediaries in replicating niche innovations across different settings and geographies to be further analysed. Seyfang and Longhurst (2016) showed how for the replication of niche projects across different geographies, intermediaries are necessary, but are unfortunately not always sufficient, being unable to replicate

confidence, tacit knowledge and trust. The capacity to reproduce at a meso level the density of relations, the cooperative environment and a mutualistic sense of trust is probably the main challenge that meso-spaces will be facing in the future.

In order to develop a conceptual framework for analysing how meso-spaces at territorial level could favour the transformation of food production, distribution and consumption towards environmentally sustainable practices, in this paper we refer also to the literature on diverse economies (Gibson-Graham, 2006 and 2008; Rosol, 2020). As new experiences are emerging at local level, we believe that it is important to fully understand these spaces, by disentangling their dynamics and motivations and objectives behind their creation. As also highlighted by Rosol (2020), certain Alternative Food Networks are certainly producing food in a sustainable way, but they still treat food as a commodity (Watts et al., 2005). Gibson-Graham (2006 and 2008) provide analytical categories which can help us better analyse these experiences. In fact, Rosol (2020) shows how food networks can be characterised by certain forms of economic transactions (e.g. donation, collecting, production for self-consumption), various working practices (e.g. equal pay for all employees, volunteering work, etc.), various forms of organization (e.g. cooperatives, collectives, etc.) and various forms of financing (e.g. member loans, cooperative shares, crowd-funding, etc.).

#### **4. Bio-districts and Food Policy Councils as meso-spaces for local food initiatives**

Overall, the critical literature review has showed the need to reconceptualise the approach towards sustainable food systems: in fact, beside the importance of focusing on the territorial and local level, this article shows how a combination of environmental governance, GIs and diverse economies approaches can help scholars analyse and understand the correct characteristics of current local sustainable food experiences.

Following on this, we therefore think it is important to study these meso-spaces looking at their characteristics, analysing some important topics, following along the lines depicted by Gibson-Graham (2006 and 2008) and Rosol (2020). The analysis of the following characteristics, among the others, might allow us to better define and understand these meso-spaces of transformation:

- The type of food produced by the actors: e.g. organic, local/regional, etc.;

- The type of network where the products are distributed: e.g. local or global markets, farmer markets, etc.;
- The economic models of the actors:
  - Enterprises: e.g. cooperative, civic association, etc.;
  - Transactions: e.g. mainstream, alternative markets, etc.;
  - Labour: e.g. paid, unpaid/volunteer, etc.;
  - Property: e.g. cooperative members, no-property, etc.;
  - Financing: e.g. cooperative members, association fees, etc.

Specifically, we believe that the development of meso-spaces, among other local food initiatives, would be able to go over the two common criticisms of territorial approaches: the inability to scale out and up, and the usual development outside policy frameworks or in opposition to current systems. In order to provide some preliminary case studies, we take inspiration from experiences, at different maturity stages, currently happening in Italy and, in this paper, we propose the analysis of Bio-districts (BDs) and Food Policy Councils (FPCs) as meso-spaces for transformation. Italy, in our opinion, provides a good environment where historically food and agricultural production has played a major role both socially and economically and where BDs and FPCs can see emerging and developing at a high speed. Our analysis is based on the existing literature on these two examples of meso-spaces.

BDs (also sometimes called Organic Regions or Eco-Regions) are defined by INNER<sup>3</sup> as territories “naturally devoted to organic [farming], where farmers, citizens, public authorities, realize an agreement aimed at the sustainable management of local resources, based on the principles of organic farming and agroecology”. BDs can be seen as the operationalization of economic development compatible with the sustainable use of natural capital (Schermer, 2006) and they aim at establishing common sets of values, shared by economic and societal stakeholders in a certain geographic area, supporting a sustainable lifestyle and rural development (Stotten et al., 2017). In BDs civil society not only could influence the actions happening within the territories but in most cases is present in the participatory guarantee systems and then in the governance methods within the districts.

Some BDs go away from the productivist schemes of the neo-liberal economy, and they go a step closer to a new moral economy, where exchanges are `justified in relation to social or moral sanctions, as opposed

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<sup>3</sup> International Network of Eco-Regions.

to the operation of free market forces' (Galt, 2013). The actors usually present in a BD are local organic farmers (which are most of the times, but not necessarily, also part of GIs), conscious citizens which could also be part of local GIs (e.g. Solidarity Purchase Groups, Community Supported Agriculture, etc.), local associations with an interest in the sustainable management of local resources (e.g. environmental groups, zero-waste associations, etc.) and representatives from public authorities (i.e. municipalities).

Italy is currently one of the countries with the highest number of recognized BDs, with thirty-two established bio-districts across the regions, according to INNER, and with additionally eight bio-districts under development in both Northern and Southern regions. With its historical background of industrial and rural districts, where highly specialized small and medium enterprises work together in a highly productive, cooperative and competitive environment in the same territory and region (Montresor, 2000; Romano, 2000; CREA<sup>4</sup>, 2019), Italy has also provided a fertile ground for the development of BDs, with the first one established in 2008 in Cilento. The establishment of BDs in Italy has leveraged on the one hand the necessity of the local territories to value economic and social principles of the organic agriculture, and on the other hand the need of the Italian territories to reach a certain autonomy of the local communities and find an integrated approach to rural development, through place-based governance methods (Clemente et al., 2013).

Together with BDs, FPCs are relatively new meso-spaces at local level where community members, professionals, and government get together to share knowledge, deliberate, and collectively devise place-based strategies to address complex food systems issues (Bassarab et al., 2019). They can be considered collaborative governance networks and an intermediary institution coordinating diverse and various interests, which would not be otherwise considered in simple food policymaking (Bassarab et al., 2019). The primary, clear difference between a BD and a FPC is that the latter might have the primary objective of drafting a local policy and usually they operate in urban areas. FPCs represent a more recent experience in Italy, with notable examples such as Milan, with the Milan Food Policy established in 2014. After Milan, several other cities have established a FPC such as Torino, Parma, Venezia, Cremona and Livorno. The development of FPCs is rather less mature compared to BDs, but the experiences offer an opportunity to understand the role that food-related practices and actors can play in transition processes toward sustainable food systems. The analysis of FPCs in Italy might also help understand how

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<sup>4</sup> Consiglio per la Ricerca in Agricoltura e l'analisi dell'Economia Agraria (Council for Research in Agriculture and the Analysis of Agricultural Economics).

the role of governance and internal dynamics develop different ways of managing food related issues and result in different food policies.

BDs and FPCs can be regarded as either mere sustainability transformation spaces, where environmentally sustainable practices are reinforced, or also as diverse economic spaces, where new (e.g. solidarity or post-capitalist) economic practices and policies could be discussed and eventually performed. The two spaces could also be considered as hybrid spaces, where both environmentally sustainable and diverse economic goals could be achieved. It follows that the actors could have origin either from existing AFNs or conventional networks (farmer, consumers, or institutions). This specific feature of BDs and FPCs allow to go beyond the dichotomy between conventional and alternative which are patterns of the same agri-food system: dominant and incumbent the first, innovative and emerging the latter (Randelli and Rocchi, 2017). Furthermore, the sustainable transformation of agriculture is not going to be brought about by alternative or conventional food networks alone, but it is clear that their interaction and co-evolution is essential (Hockerts and Wüstenhagen, 2010).

The hybridity of these spaces is also related to the capacity of public and private institutions to cooperate for the same goal of developing a sustainable local economy. In the case of BDs, local authorities such as municipalities and Province governments represent the public. It follows that the "hybridization" happening within these meso-spaces can also allow going beyond a criticism of existing local sustainability initiatives to develop outside policy frameworks or in opposition to current agri-food system.

Moreover, BDs and FPCs can be analysed through the perspective of, respectively, production and consumption dynamics: in fact, while in BDs we might see a higher presence of organic producers and ethical consumers, the FPCs, due to the active participation of municipalities trying to understand the necessary policy steps for citizens to consume food in a more sustainable way (e.g. less waste, more organic products, support of local economy, etc.), might represent spaces where consumption behaviours get influenced.

Considering BDs and FPCs as territorial meso-spaces of transformation, where sustainable, alternative and/or diverse organizational routines of the actors are shared and institutional routines for sustainability are influencing the organizational routines of participants, is interesting also because it is following along the lines of the relatively new European regional policy, which is promoting a territorialized and place-based approach (Barca, 2009). In this context, these spaces promote local development through flexible structures, multilevel (or self-) governance and the participation of local actors along the food chains (Pugliese et al., 2015). These elements

then favour more sustainable production and consumption processes, thanks to the shared local culture and knowledge of the involved actors and to the networking, that brings together different local agencies (Murdoch, 2000; Assaël and Orefice, 2016). BDs and FPCs, as meso-spaces of social, economic, and environmental transformation, might provide spaces where experimental sustainable practices at local level are shared among actors and institutionalized at social and political level (Assaël and Orefice, 2016).

To better understand how these meso-spaces perform, we must therefore clarify their dynamics, the active actors, and their motivations. Also, there is the need to understand the interactions of BDs and FPCs with the already established experiences at local level, either at the level of other forms of governance or at the level of conventional industrial agriculture. As BDs and FPCs are still in a preliminary development phase also in Italy, this paper has only touched upon them as a potential working meso-space. We are aware of the limits of our analysis: due to the lack of a specific database, we were not able yet to deeply analyse the internal dynamics and characteristics of BDs and FPCs in Italy. For this reason, they cannot be considered entirely representative of the way meso-spaces can contribute to the transformation of food systems. Therefore, it would be quite informative to know more about BDs and FPCs, eventually also with single case studies.

This follows along the lines of what several authors (e.g. Köhler et al., 2019; El Bilali, 2018) have been highlighting recently: the need for a deeper elaboration on sustainability transitions and transformations, by looking at how governance, power and agency play a role and, most importantly, how micro-behaviours are actually influenced by institutional norms and vice-versa (MacKinnon et al., 2009).

## **5. Conclusions and research directions.**

In view of the growing problems posed by industrial agriculture and climate change, this paper has tried to propose a way forward for analysing territorial food arrangements, by offering a mix of theoretical instruments. This theoretical framework can be applied for the analysis of territorial meso-spaces of food system transformation such as, for example, BDs and FPCs in Italy.

In order to go beyond some criticisms of local food sustainable initiatives such as to be rather small and developed outside policy frameworks or in opposition to current agri-food systems, in this paper we argue the need of meso-spaces at local level: here, community members, professionals, firms and governments get together to share knowledge, coordinate their



actions, cooperate, deliberate, and collectively envisage and design place-based strategies to address complex food systems issues.

These meso-spaces would allow to increase food sovereignty of local communities and to have a higher impact on the current food regime which many GIs were able only to affect superficially. The BDs and FPCs are just an example of meso-spaces for the transformation of food initiatives and, as they are rather new, further research is needed in order to analyse their features and whether they are incisive in the transformation of food systems.

Meso-spaces in food systems might favour the transformation towards sustainability, therefore going over the two main criticisms of local sustainable food initiatives, i.e. *one*, a lack of dissemination and multiplication potential of successful initiatives and *two*, a weak link with policy frameworks. Due to the spatial and cultural proximity of the actors within them, these spaces could promote autonomy of local initiatives, sharing of knowledge among actors, and sustain public local support (Pugliese et al., 2015), while still making sure that a wider audience is reached and that learnings are used for fruitful policy-making.

Future research should concentrate first on the consequences of the formation of meso-spaces for the functioning of food systems. To put that more in a perspective of identifying possible pathways of local food initiatives would be an intriguing question. In this respect, studies on meso-spaces should become part of the emerging literature on the sustainability transition, which now often lacks a space or regional perspective. When investigating the “adaptive capacity” of a local economy, we should consider the (adaptive) strategies of the economic agents living in the region. In this article, we examined meso-spaces as an agent to overcome some criticisms of local food initiatives. Future research could investigate the capacity of meso-spaces to respond to social and environmental issues. In that case, the future of regions may depend, among others, on the adaptive strategies of their leading meso-spaces agents. Other questions we have in mind to better understand this phenomenon are specifically concerning the dynamics which brought to their formation and what were the motivations for the actors to participate. Furthermore, we believe it would be important to understand which actors decided to participate and, in the case of the firms, whether they have a specific organizational set-up (e.g. cooperatives of workers, no-profit, etc.).

The internal governance is also a crucial topic for future research in order to reveal the dynamics and the goals: can we see mere environmentally sustainable goals or also additional goals (e.g. creation of diverse economies)? Last but not least, a crucial question is about the impact of these meso-spaces towards the external actors at local level: are external actors influenced and, eventually, how?

As Seyfang and Longhurst (2016) claim, while intermediaries are necessary because they allow to go beyond many dichotomies such as alternative-conventional, local-global, or “Davids-Goliaths” (Hockerts and Wüstenhagen, 2010), their challenge is to replicate the same level of confidence, tacit knowledge and trust of small local niche initiatives. Their capacity to reproduce at the meso level the density of relations, the cooperative environment and a mutualistic sense of trust depend on the internal governance efficiency. This is probably the main challenge for meso-spaces to be transformative.

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