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Participatory Guarantee Systems: structure, benefits and reasons for participation – insights from the Italian case study of Campi Aperti

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Participatory Guarantee Systems (PGS) have emerged from initiatives introduced by farmers and civil society to ensure the organic quality of products by directly involving producers, consumers, and other stakeholders in the guarantee process. While actor participation in PGS provides the foundation for these systems, it also presents challenges, yet little empirical research on this has been undertaken. This study used a framework to analyze four dimensions of participation in PGS: who, how, what kind, and why? The Italian case study of Campi Aperti was qualitatively and quantitatively analyzed by means of: (1) research of internet documents, (2) semi-structured interviews with seven key members and one expert, and (3) an online survey of PGS members ($N=614$ members, survey respondents: $n=16$ producers and 45 co-producers). Participation took the form of two main activities: management of the guarantee process and organization of farmers' markets. Discussions are held and decisions made at assemblies and market meetings. The growing number of producers joining the PGS has added to organizational tasks, and hence increased costs. Participants stated that the reasons for joining the Campi Aperti PGS and the benefits of being a member were to gain access to city markets and to send a political message. Building trust between members was an additional benefit cited. Time constraints emerged as the main drawback preventing participation by members, with producers taking on more roles and investing more time in the PGS than co-producers. However, co-producers provided evidence of other ways in which they participated in the PGS, in particular by making purchases and socializing at the markets.

KEYWORDS

organic agriculture, certification, participatory guarantee systems, farmers' markets, alternative food network, food sovereignty

1 Introduction

A Participatory Guarantee System (PGS) is a process for ensuring the integrity of organic food claims and is based on the direct participation of producers, consumers, and other stakeholders. Besides the organic guarantee, PGS are said to boost social processes such as creating trust, building social networks, and exchanging knowledge between the various actors

(Zanasi et al., 2009; Home et al., 2017; Sacchi, 2019). Often rooted in the principles of agroecology and food sovereignty (López Cifuentes et al., 2018; Niederle et al., 2020), PGS are also frequently associated with a transformation in food system governance (Cuéllar-Padilla and Ganuza-Fernandez, 2018) and food system sustainability (Moura e Castro et al., 2019). PGS initiatives comprise a variety of structures and ways of operating, which depend on the actors involved, the area they cover, and the legal framework to which they relate (IFOAM–Organic International, 2019). The participation of farmers and consumers has generally been identified as a crucial factor in the success and duration of PGS (Nelson et al., 2016; Kaufmann and Vogl, 2018), but scientific literature lacks consensus regarding the frameworks for investigating PGS (Roggio and Evans, 2022). An analytical framework for examining participation in PGS has recently been introduced (Kaufmann et al., 2020) and tested in case studies in Chile (Hruschka et al., 2021).

The aim of this study was to explore participation in PGS by applying the theoretical framework adapted to PGS by Kaufmann et al. (2020), and improve understanding of PGS characteristics and participation by collecting empirical data on participation in a selected Italian PGS.

In particular, this study explored who was participating, how participation was occurring, what kind of participation was occurring, and why. Section 2 of this paper presents some background literature on organic certification and PGS. The conceptual framework for analysis and the applied methods are outlined in Section 3. This is followed by the results (Section 4), discussion (Section 5), and conclusions and outlook (Section 6).

2 Background

2.1 Ensuring the integrity of organic products

In the European Union (EU), producers, processors and traders are only certified and allowed to label and commercialize their products as organic after an assessment to verify that they conform with the regulatory framework for organic farming (EU Regulation 2018/848, and related delegated and implementing acts). As required by this framework, impartial inspectors of certification bodies (CBs) that comply with the international standard for product conformity assessment bodies – ISO 17065 – check the compliance of relevant stakeholders along the supply chain with organic standards. A different competent person within the involved CB then determines whether organic certification is appropriate (Vogl and Axmann, 2016). This procedure is known as third-party certification (TPC), and aims to maintain the objectives of certification and provide a reliable and impartial guarantee for consumers (Hatanaka et al., 2005; Fouilleux and Loconto, 2017). Nevertheless, the TPC process requires investment in terms of time, e.g., for the completion of administrative tasks in order to obtain organic certification, as well as money to cover the annual costs of inspection, certification, and the adaptation of production processes to the given standards (Hatanaka

et al., 2005; Cuéllar-Padilla and Ganuza-Fernandez, 2018). Furthermore, some aspects included in the holistic approach of organic farming, for instance relating to the fair treatment of workers, the protection of small-scale farming systems and local food networks, and the promotion of social justice, are not translated into federal or international organic farming standards (Nelson et al., 2010), such as EU Regulation 2018/848 (European Commission, 2018). However, areas of this kind are covered by the regulations of other private standards, such as Fairtrade (Sellare et al., 2020).

2.2 Participatory Guarantee Systems

Prior to the adoption of TPC for organic certification, first-party and second-party approaches were implemented by associations of farmers, consumers, and agricultural technicians around the world (Fouilleux and Loconto, 2017; Darnhofer et al., 2019). One widespread example of an alternative to TPC is Participatory Guarantee Systems (PGS). According to the International Federation of Organic Agriculture Movements (IFOAM–Organics International), PGS are defined as “locally focused quality assurance systems. They certify producers based on active participation of stakeholders and are built on a foundation of trust, social networks, and knowledge exchange” (IFOAM–Organic International, 2008, p. 1). Among their characteristics, PGS reduce the number of intermediaries. Firstly they do this in terms of supply, with the marketing channels behind numerous PGS initiatives characterized by direct contact between producers and consumers, for instance through direct selling at farmers’ markets (Zanasi et al., 2009; Sacchi et al., 2015; Hirata et al., 2019). Secondly the number of intermediaries is reduced by the direct participation of PGS members in the management and coordination of the initiative (Chiffolleau et al., 2019), which requires the actors to be actively involved in running the guarantee systems. While PGS around the world are structured in a variety of ways, key elements in how PGS function are reported to be a shared vision, trust between stakeholders and in the PGS process, transparency regarding standards, procedures and decision making, participation in PGS planning and implementation, horizontality of PGS structures, and a continuous learning process on organic practices for all participants (IFOAM–Organic International, 2019).

Members and initiators of a PGS are usually producers, but they can also be consumers and other actors, such as staff at NGOs, universities, and local authorities, or individual technicians. Based on local conditions, from the outset they define which cultivation systems to adopt and how the verification and certification process works in practice. Cultivation methods are based on principles embracing agroecology, regenerative agriculture, and organic farming (Roggio and Evans, 2022), and observance of such principles is verified using a peer-to-peer mechanism. Once the founding ideas are established, PGS participants themselves undertake farm visits, evaluations of visits, and certification. These steps can be performed by one or more committees or individuals, depending on the organization of the PGS. Ultimately this means clarifying the PGS’ own understanding of producing, processing and distributing food, and developing a reliable guarantee system to ensure these principles are fulfilled (Home et al., 2017). If the criteria are met, the producer is PGS-certified and, depending on the institutional recognition of PGS in the country, the products are also labeled as such (Zanasi et al., 2009; Sacchi et al.,

Abbreviations: AFNs, Alternative Food Networks; CB, certification body; EU, European Union; IFOAM, International Federation of Organic Agriculture Movements (IFOAM – Organics International); KM, key member; PGS, Participatory Guarantee System; TPC, third-party certification; WG, working group.

2015). In 2022, a PGS survey conducted by IFOAM counted 261 operational PGS and 62 under development spread across 76 countries (Anselmi and Moura e Castro, 2023). Currently the territory of the EU has 16 PGS initiatives and nine under development, spreading into new countries – such as Greece, Hungary and Czechia – and being consolidated in France and Spain (Anselmi and Moura e Castro, 2023). Given that completion of the IFOAM survey was voluntary, this overview might be incomplete. Furthermore, the rather low number of PGS initiatives in the EU compared with other regions in the world, such as Latin America or India, can be explained by the unfavorable institutional setting in the EU, given that PGS producers are not allowed to claim organic status as PGS are not included in the legislative framework for the certification and labeling of organic products (EU 2018/848).

2.3 Benefits and drawbacks of PGS

Lower administrative requirements, costs, and time invested compared with TPC have all been cited as reasons for starting or participating in PGS initiatives (Zanasi et al., 2009; Nelson et al., 2010; Home et al., 2017). The inclusive nature of these systems has been considered of particular importance for smallholder farmers, for whom the requirements of the TPC system are hard to meet due to their more limited access to economic and cultural capital (Cáceres, 2005; Nelson et al., 2010; Montefrio and Johnson, 2019). PGS requirements are expected to be adapted to local agro-ecological and socioeconomic conditions in order to meet participants' needs effectively, for instance in terms of agricultural practices or sales channels (Cuéllar-Padilla and Ganuza-Fernandez, 2018; Hirata et al., 2019). For consumers, PGS can provide access to fresh, local, trusted organic produce, which might not otherwise be possible in terms of marketing channels, product prices, or direct contact with farmers (Zanasi et al., 2009; Nelson et al., 2010; Cuéllar-Padilla and Ganuza-Fernandez, 2018; Hirata et al., 2019; Hruschka et al., 2024). In terms of economic advantages for producers, besides the claimed lower cost of certification, PGS can allow small-scale, low-income farmers to access local marketing channels and possibly obtain a premium price associated with the quality of their products (Nelson et al., 2010; Binder and Vogl, 2018; Hirata et al., 2019).

To date, only a few studies have focused on the challenges that PGS initiatives face. Legal recognition of PGS is a divisive topic: it can lead to government support and broaden access to the organic market (López Cifuentes et al., 2018; Hruschka et al., 2021), but it requires a certain degree of standardization, and therefore the anticipated negative outcomes may be one reason for avoiding legal recognition (Cuéllar-Padilla and Ganuza-Fernandez, 2018). For example, in Mexico and Costa Rica, there have been reports of increased administrative procedures due to the legalization of PGS, and consequently a return to TPC-like mechanisms (Kaufmann and Vogl, 2018; Rosina Bara et al., 2018; Anselmi and Vignola, 2021). In terms of organizational challenges, the time that PGS activities take, the distance between PGS members themselves and between PGS members and the PGS headquarters, and a perceived lack of technical knowledge and expertise have been reported as factors that limit members' active participation (Nelson et al., 2010; Cuéllar-Padilla and Ganuza-Fernandez, 2018; Kaufmann and Vogl, 2018; López Cifuentes et al., 2018; Hruschka et al., 2021). Other difficulties

mentioned in relation to PGS initiatives are: (1) the concentration of responsibilities, workload, and knowledge among a few key members, (2) internal conflict management in the event of non-compliance, and (3) low consumer awareness of, and participation in, PGS activities (Sacchi, 2015; Nelson et al., 2016; Binder and Vogl, 2018; Cuéllar-Padilla and Ganuza-Fernandez, 2018; Kaufmann and Vogl, 2018).

2.4 PGS as a social process

As well as being a certification system, PGS are thought to deliver additional outcomes that mainly fall within the domain of social processes. It is reported that trust among PGS members is encouraged by transparent and documented farm audits, as well as by direct interaction between consumers and producers at markets (Nelson et al., 2016; Loconto and Hatanaka, 2018; Sacchi, 2019). The establishment of networks in rural areas contributes to building a sense of community and empowering farmers, activating processes of communal buying, and encouraging the shared use of resources, such as seeds and machinery, cooperation with transport and logistics, and collective working days (Home et al., 2017; Loconto and Hatanaka, 2018). The exchange of knowledge and skills around organic farming takes place on farm visits, at PGS meetings, and at the markets (Binder and Vogl, 2018; López Cifuentes et al., 2018; Sacchi, 2019; Hruschka et al., 2021). PGS are reported to constitute a self-governance approach, giving a voice to both consumers and producers in defining food quality and re-embedding agricultural production in the local context (Cuéllar-Padilla and Ganuza-Fernandez, 2018). In several case studies, the motivation for initiating and participating in PGS has been described as a political act and a tool for social change rooted in principles of agroecology and food sovereignty (Nelson et al., 2016; Cuéllar-Padilla and Ganuza-Fernandez, 2018; López Cifuentes et al., 2018; Hirata et al., 2019; Niederle et al., 2020). In Italy, research has framed PGS within the broader discourse of alternative food networks (AFNs), providing a connection between producers and consumers and a form of social innovation within the food system (Sacchi, 2019; Alberio and Moralli, 2021). The anticipated lower costs of certification through PGS substantially rely on voluntary work by PGS members. However, the participatory nature of PGS often represents a challenge in practice, and until recently there has been no theoretical framework for analyzing participation as a composite and complex concept (Nelson et al., 2016; Kaufmann et al., 2020; Hruschka et al., 2021). One recent empirical paper investigated participation in two Chilean PGS by applying the framework of Kaufmann et al. (2020). In the analysis of the Chilean PGS, this framework helped define the nature, reasons, and benefits of member participation by providing empirical evidence of the quality and quantity of the participation (Hruschka et al., 2021).

Building on this research, the study outlined in this paper explored the four main dimensions of participation: who is participating, how, what kind of participation is practiced, and why? As participation is a complex and multidimensional concept, the results are not just presented in the order applied in the coding framework, as shown in Table 1, but by combining the elements and dimensions of participation into sub-chapters that offer a coherent description of the practice of participation.

TABLE 1 Framework for assessing actor participation: studied dimensions, sub-dimensions and elements of participation [based on Kaufmann et al., 2020].

Dimension	Sub-dimension	Element	Defined in the PGS context
Who?	Members	Producers	Sociodemographic background (i.e., age, sex, education)
		Co-producers	
How?	Form of participation	Organization	General structure, admission of participants
	Extent of participation	Range of activities	Certification process, meetings, other activities
		Time involved	Frequency (<i>n</i> times) and duration of activities
What kind?	Decision-making	Ongoing decisions	Adaptation of an activity to a new situation
		Operational decisions	Discussions and decisions connected to running the PGS
	Implementation	Resource contribution	Money, membership fee, knowledge, tools
		Administration and coordination	Roles and tasks of members
	Benefits and drawbacks	<i>Element level not considered</i>	Advantages and challenges perceived by members
Why?	Reasons for participation	<i>Element level not defined in the literature</i>	Motives for joining (or not) the PGS/specific activities

3 Materials and methods

3.1 Conceptual framework for analysis

The “framework for assessing actor participation in PGS” (Kaufmann et al., 2020; referred to below as “the framework”) was used. This framework is based on previous work by Cohen and Uphoff (1980), and describes four main dimensions of participation, with each characterized further into sub-dimensions and elements (Cohen and Uphoff, 1980; Kaufmann et al., 2020). The framework also takes into account the historical, environmental, and societal contexts in which participation occurs. Context factors might include, for instance, the history of PGS development, the geographical context, the legal framework for organic farming, and the presence of government programs aimed at supporting PGS initiatives (Kaufmann et al., 2020). For the study outlined in this paper, all four dimensions were explored. However, some sub-dimensions and elements were excluded from the study due to the study’s focus and the timeframe available for data collection.

3.1.1 Who participates

Looking at *who* participates in the PGS and its activities depends on the initiative. Besides producers, processors, and consumers, other categories of actors, such as different levels of local authorities, technicians, NGOs, universities, and umbrella organizations, might be included (Kaufmann et al., 2020). Besides basic sociodemographic characteristics – e.g., age, sex, education, income level (Cohen and Uphoff, 1980) – other characteristics relevant to PGS analysis include years of membership in the PGS, geographic distance to the PGS and its community markets, knowledge of organic farming and PGS, the economic importance of agriculture and PGS products for the household economy, and engagement in off-farm work and/or voluntary and non-profit activities (Kaufmann et al., 2020).

3.1.2 How does participation take place

How participation takes place is defined by the basis, form, extent, and effect of participation. Participation in the guarantee system takes its *form* in an organization that works mostly at two levels: one organizational unit (e.g., an inspection committee) that conducts the

farm visit and another (e.g., a certification committee) that assesses the visit results in relation to compliance with production standards. Other structures, roles, and rotational principles, as well as the direct or indirect nature of participation, are rarely specified in PGS literature (Kaufmann et al., 2020). The *extent* of involvement can be described through the range of activities undertaken by a member, and measured in terms of the duration and frequency of an activity (Kaufmann et al., 2020).

3.1.3 What kind of participation is practiced

Decision-making, implementation of the activities, and their beneficial or harmful consequences describe *what kind* of participation is taking place. *Decision-making* processes include decisions about starting a PGS, how to make it operational, and how to resolve ongoing issues (Kaufmann et al., 2020). As decision-making is strongly connected with the PGS’ organization and range of activities, these three elements will be merged in the results section. Contributions to the *implementation* of an initiative can occur through material and non-material resources or by covering specific roles in its administration and coordination (Kaufmann et al., 2020). The *benefits and harmful consequences* derived from participation in PGS can be divided into material consequences, which mean a change in income, assets or other private goods, social consequences, which refer to public services that might be accessed by participation (e.g., markets), and personal consequences, when looking at the possible gain from a group of non-material goods such as knowledge or political power (Cohen and Uphoff, 1980; Kaufmann et al., 2020). However, these were not considered until the element level, and were left open to participants’ own definition in order to avoid being suggestive.

3.1.4 Why does participation occur

Finally, *why* participation occurs often omits a closer look at the reasons for non-participation and the consumers’ perspective (Kaufmann et al., 2020). Recent studies have clustered AFN consumers’ motivations behind participation into self-oriented, community-oriented, and sociopolitically-oriented consumers (Zoll et al., 2018), while others have distinguished between extrinsic and intrinsic motivations for taking part in AFNs, the former being

connected to quality and convenience and the latter to community and value-based outcomes (Sacchi et al., 2021).

3.2 Research methods

Focusing on one Italian PGS initiative as the case study, the authors explored the four dimensions of participation by conducting semi-structured interviews and distributing surveys to PGS members. Interview guidelines and survey questions can be found online as [Supplementary material](#). The research was conducted between June 2020 and March 2021. Owing to the COVID-19 pandemic, planned in-person methods, i.e., face-to-face interviews and surveys, had to be converted to an online approach for data collection.

Italy was chosen as the target country due to the presence of PGS initiatives in the country, the availability of related literature, and the first author's familiarity with the context and language. The criteria for selection of the case study were:

1. its scale, i.e., more than 20 producers are involved in the PGS;
2. the existence and content of a website outlining PGS principles;
3. members' willingness to participate.

A literature and online search identified 17 initiatives that have adopted PGS in Italy, of which nine had more than 20 producers and a website. Campi Aperti was ultimately selected because it is considered to be a leading example of an AFN applying PGS with a broad membership (Sacchi, 2016; Alberio and Moralli, 2021). The well-documented and long-term functioning of this PGS was considered a good starting point for investigating members' participation and potentially drawing conclusions about the reasons for its success. Specific to Campi Aperti is its different definition of consumers: as consumers' support and participation are considered fundamental to the existence of the Campi Aperti initiative, they are called *co-producers* and will be referred to as such below.

Using a mixed-methods approach (Newing, 2011), there were two phases of data collection. Information from Campi Aperti's website provided an overview of its aim and structure, and a guide was prepared for the semi-structured interviews. The questions were designed to be open-ended and were mainly descriptive in nature (Bernard, 2017). In September 2020, the first author traveled to Bologna to visit Campi Aperti's markets, present the scope of research

to a general assembly, and obtain contact details for key members (KMs) with whom to conduct interviews.

In the first phase, semi-structured interviews were conducted online with KMs (producers and co-producers) to (1) contextualize PGS development in the local context, and (2) understand the general operations of the PGS. KMs were defined as being part of the initiative for at least 5 years and having knowledge of the association's administration, the PGS, or the markets. The first KMs interviewed had a role in the administration of the initiative, and were the starting point for obtaining the contact details of other KMs through snowball sampling (Newing, 2011). In the same period, a university researcher who was not a member of the case study association was selected for an interview through targeted sampling (Newing, 2011), and included as an expert on the topic of PGS development at a national level. Ultimately, eight semi-structured interviews took place (Table 2). All the interviews were conducted in Italian online over Zoom (Zoom Video Communications, Inc. 2013), Skype (Skype Technologies (Microsoft) 2019) or other platforms with which the interviewees were more familiar. Audio recordings were transcribed verbatim in Italian using the free online software oTranscribe (MuckRock Foundation, 2018).

In the second phase, an online survey (Topoel, 2017) was developed using LimeSurvey software (LimeSurvey GmbH 2006–2021) with the aim of exploring individual participation in the PGS. Two separate sub-surveys targeted either the producers or co-producers of Campi Aperti. All data collection tools (KM interview guidelines, producer and co-producer survey questionnaires) were based on the data collection tools developed by Kaufmann et al. (2020) and applied in previous PGS case studies (Hruschka et al., 2021; Kaufmann et al., 2023a). These data collection tools came about from an operationalization of the framework following Bortz and Döring (2016), informed by existing scholarly and gray PGS literature (Kaufmann, 2023), and were adapted to the specific PGS and country context based on the literature reviewed.

Survey questions were further adapted based on the results of the KM interviews, by referring to the specific activities and working groups in which participation was to be assessed. Survey questions were designed mainly as closed questions with single or multiple choices. Questions about motivations for joining the PGS and for taking part (or not) in specific activities were left as optional and open-ended. The survey link was emailed to all members of the initiative using the members' mailing list. Respondents were given a

TABLE 2 Interviewees in semi-structured interviews, membership details, and elements of participation addressed in the interview and presented in the results section.

Code name	Member, since	Elements of participation addressed by the interviewer
KM_A1	Co-producer, 2014	Organization, range of activities, administration and coordination, benefits and drawbacks
KM_A2	Co-producer, 2010	
KM_P1	Producer, 2005	Guarantee mechanism, PGS working groups, benefits and drawbacks
KM_P2	Producer, 2015	
KM_C1	Producer, 2002	Socioeconomic context, history of development, benefits and drawbacks
KM_C2	Producer, 2014	
KM_C3	Co-producer, 2014	IT working group, benefits and drawbacks
E_C4	n.r.	PGS in Italy, development, and socioeconomic context

KM=key member; A=administration; C=context; E=expert; n.r.=not relevant.

two-week deadline for completion. After a week, a reminder email was sent and the survey was also posted on the association's Facebook (Meta 2022) page.

Semi-structured interviews and open-ended questions in the surveys were qualitatively analyzed with the software ATLAS.ti (Scientific Software Development GmbH 2002–2022) using pre-defined codes (Miles et al., 2020) based on the framework (Kaufmann et al., 2020; Table 1). The data were translated into English and organized into a table, with columns for each respondent and rows for the participation dimensions, allowing information provided by different KMs on the same topic to be complemented and triangulated (Newing, 2011). In addition, quantitative analysis was applied to the survey results using descriptive statistics calculated in Excel (Microsoft 2016). Minimum and maximum values were used to describe the samples' variability, while arithmetic mean (μ) and standard deviation (σ) gave the distribution of values within the sample (Bernard, 2017).

In total, 16 producers and 45 co-producers in Campi Aperti took part in the survey (14 producers and 31 co-producers completed all the survey sections). Producers were aged between 33 and 70 years ($\mu = 51.21$, $\sigma = 11.22$), and their level of education was equally distributed between diploma level and a university degree, with five of the eight university degrees being in the field of agricultural or natural sciences. The age range of co-producers was between 21 and 75 years ($\mu = 37.11$, $\sigma = 13.36$), 87% of them had a university degree, and 13% had a diploma. Survey response rates were less than 10% of total members. While these rates are not unusual for online surveys (Bernard, 2017), it should be acknowledged that members indicated that the distribution method, i.e., online instead of in person, was a barrier to undertaking or completing the surveys. Moreover, the data collection timeframe coincided with the unprecedented crisis caused by the COVID-19 pandemic and it is assumed that the unusual living conditions and rapid increase of online meetings at the time might have negatively affected their willingness to participate. An additional round of online semi-structured interviews with producers and co-producers, conducted after determining the final survey response rate, could have reinforced the robustness of the data. However, this was not feasible due to resource constraints.

The results will present an overall description of the four participation dimensions based on the qualitative data obtained from the semi-structured interviews, while the survey data serve to complement information on participation with empirical evidence of member participation. Although survey samples cannot be considered representative of the total population of Campi Aperti members, and the data cannot be generalized due to the low survey response rates and small number of semi-structured interviews conducted, the data do shed light on various, highly relevant aspects of PGS participation.

4 Results

4.1 The Campi Aperti case study

Campi Aperti started in 2002 as an informal group of consumers and producers called *Coordinamento per la Sovranità Alimentare* (coordination for food sovereignty) who organized farmers' markets in Bologna, the provincial capital of the Emilia-Romagna region (KM_C1). Starting with small markets in self-organized social centers, the

association now runs seven community markets. In 2015 Campi Aperti concluded an agreement with the city administration of Bologna, gaining permission to run the markets in public places, defining the standards and costs to be covered by the association, and recognizing the sociocultural value of such markets (Comune di Bologna, 2015). Basic features of Campi Aperti markets are the direct sale of their own produce, with the use of any external ingredient clearly stated, no re-sale on behalf of other producers, and the guarantee of product quality through the direct participation of members. In Italy, as in the rest of the EU, TPC is mandatory in order to make organic product claims, and PGS are not legally recognized as quality assurance mechanisms for organic products. The products sold at the Campi Aperti markets do not carry a specific logo because their expected quality is assured through the PGS established by its members and peer-to-peer control. This does not prevent producers from privately applying for TPC, thus carrying the organic logo, and selling organic products through both the markets and other sales channels. Processed products (e.g., wine, dairy products, juices, bread) sold at the Campi Aperti markets are labeled as *Genuino Clandestino* (genuinely clandestine) if they do not meet all the hygiene requirements for foodstuff (EC 825/2004). *Genuino Clandestino* is a national network that was formed in 2010 after declaring that some standards were inapplicable to small producers, for instance the size of facilities required for food processing.

4.2 Who participates in Campi Aperti

As at August 2020, Campi Aperti had a total of 614¹ members. Membership is defined by Campi Aperti as “*being part of a community that builds an alliance between city and countryside, producers and co-producers; as well as an alliance between producers with a view to cooperation, non-competition, and mutuality*” (Campi Aperti, 2019). Campi Aperti producers (150 people) run small to medium farms. To become members, they have to agree to the association's internal regulations and founding principles. Within the Campi Aperti network, co-producers (464 people) are also regular members of the association. While anyone can shop at the Campi Aperti markets, becoming a member of Campi Aperti and paying a membership fee for co-producers implies additional support for the associations' activities. The PGS is managed by Campi Aperti members, and no other actors are involved in it. Nevertheless, the association does have close contact with two other local AFNs, namely a community-supported agriculture initiative and a food cooperative, with several other AFN initiatives spread all over Italy and in the *Genuino Clandestino* network. The AFNs, which are part of the *Genuino Clandestino* network, provided feedback on the proposal for the first regional law on solidarity economies (LG 19/2014). The law also defines and recognizes PGS as local systems that ensure product quality and that are actively co-designed and managed by their users (Regione Emilia Romagna, 2015).

1 As at March 2020, Campi Aperti had 276 members, of whom 150 were producers and 126 co-producers. Following the COVID-19 outbreak and the obligation to qualify as members in order to purchase Campi Aperti products online, the number of consumer members increased substantially between March and August 2020.

TABLE 3 Overview of the organizational structure and range of activities.

Organizational unit	Examples of activities performed
Presidency and executive board	Chair general assemblies, participate in official meetings with city municipality, manage finances
General assembly	Discusses current issues and takes decisions (e.g. new producers entry, management of finances)
Market meeting	Manages market operation and organization (e.g. producers to include, opening times)
PGS WG	Performs admission/control and supplementary visits, reports results to general assembly
Agenda WG	Sets agenda for general assemblies
IT WG	Maintains association's website and cloud
Strategic WG	Sets priorities, interacts with city municipality, supports presidency

WG=working group.

4.3 How does participation take place: organization, range of activities, and frequency of participation

4.3.1 Organizational structure and range of activities

An overview of the organizational structure and range of activities, as well as examples of these, are summarized in Table 3. Campi Aperti aims to be a horizontal structure and to share information and decisions between members (KM_A1; KM_C2). Therefore, a rotation of roles for the presidency and the executive board is implemented every two to 3 years, and all the activities carried out by the association are organized into working groups (WG) comprising several members (KM_A1; KM_A2). Two members employed in the administrative office take care of formalities for the association and help coordinate its two main activities, namely the PGS and the community markets (KM_A2). The need to employ two members for 30 h per week was a consequence of the increasing number of producers and therefore of markets run by the association (KM_A1).

Members meet regularly and take decisions in two kinds of meetings. General assemblies are open to all members. Their function is to define internal regulations, set the price ranges for the products once a year, discuss emerging problems and political campaigns, and obtain reports from the various WGs (KM_A2; KM_P1; KM_C2). Market meetings are held for each of the seven markets and involve all the producers in the respective market. At these meetings, the individual market discusses its management and emerging proposals and issues, and regularly assesses whether all product categories are covered or if there is space for other/new producers (KM_C2).

At the time this research was carried out, KMs mentioned more than 10 WGs within Campi Aperti, including the PGS WG, agenda WG, strategic WG, IT WG, and networking WGs in Genuino Clandestino, as well as WGs working on external projects. Only those activities and WGs most central to the purpose and management of Campi Aperti are presented in detail in this paper. Involvement in the WGs is voluntary. WGs are always open to all members, and involvement is based on their personal interests and capabilities (KM_C1), as the following quote illustrates:

“Since I did not know precisely what the PGS WG was and I wanted to understand it better, I joined the group. I wanted to learn about the guarantee system, understand what it meant in practice and how it was implemented. Also, because my wish was to eventually bring this system outside of Campi Aperti” (KM_P1).

The PGS WG is central to the purposes of Campi Aperti and guarantees product quality. Each of the seven weekly markets selects two producers to be the PGS contacts and attend WG meetings (KM_P2). Besides the PGS contacts, each community market has two market contacts selected from among the producers who are in charge of the respective markets (KM_C1). This involves managing market licenses and costs, and organizing market meetings in close collaboration with the two Campi Aperti coordinators (KM_A1, KM_C1).

Other WG relevant to the management of Campi Aperti are firstly the Agenda WG, which has four members plus others who join in depending on the topic, sets the agenda, and decides on the upcoming general assembly (KM_A2). Secondly, the IT WG, which currently consists of six co-producers and two producers, is in charge of running the association's website, which contains relevant information and shares documents, and the association's web-based cloud data storage system, where all the assemblies' records and data on producers are stored (KM_C3). When conducting this research, the IT WG had recently proven to be an important factor supporting the resilience of the association:

“The working group proved to be very useful when we were all confined at home due to the Covid-19 outbreak. The markets were closed and we had to find a solution and set up an online market platform” (KM_C3).

Thirdly, the Strategic WG, which has a varying number of participants depending on requirements, is in charge of external communication with Bologna's council (KM_A1; KM_A2).

4.3.2 The PGS guarantee process

The guarantee process developed by Campi Aperti follows internal guidelines that require compliance with the EU's organic standards (EC 834/2007, at the time of the interviews) as a minimum. There are three types of visits: *admission visits* for new producers, *control visits* in the event of suspected noncompliance, and *Supplementary Visits* in the event that a producer member wishes to add other product categories to those already commercialized (KM_P1, KM_P2). As explained by one KM, establishing a guarantee process became necessary at some point:

“We started the markets relying on the fact that there was a form of quality assurance provided through the direct contact between who is producing and who is consuming, a sort of structural safety ensured by this relationship. But then we realized it was not like

that: the moment you create an economic niche, however small, someone comes and tries to take advantage of it. In particular, we realized that somebody had started buying and reselling products, which was always contrary to our principles” (KM_C1).

The PGS WG appoints a visit committee whose composition varies depending on the type of visit. For an admission visit, the visit committee includes at least one member of the PGS WG and one producer of the same product type, for instance vegetables, wine or dairy (KM_P1, KM_P2). The admission visit is communicated to a mailing list and is open to all members. Following the visit, the committee assesses whether the production is compatible with the association’s principles and complies with internal guidelines (KM_P2). If the guarantee is awarded, the producer waits to be given access to one of the weekly markets at the market meeting, while members of the visit committee give the new member an induction into what goes on at the association and start a process of sharing knowledge and building trust (KM_C1). If the guarantee is not awarded, an adjustment time is envisioned for the producer to re-apply for an admission visit (KM_P1) (Figure 1). Producers who also have an organic TPC are allowed to use the EU logo for the organic products they sell at the markets (KM_A1; KM_C1); this is not uncommon, as around 50% of survey respondents stated that they were also third-party certified.

Control visits that take place when there is a suspected noncompliance are conducted by at least two members of the PGS WG. The main examples of noncompliance are the re-sale of products that are not produced by Campi Aperti members, including ingredients for processed food, and the re-sale of bought in, non-organic fresh food. Control visits have proven necessary from time to time; this visit is seen as more sensitive and is therefore not open to all members (KM_P1). Time is normally allowed to adjust for non-conformities, but in the event of ongoing noncompliance with internal PGS guidelines, the exclusion of producers is enforced. The interviewees reported this to be rare, i.e., less than one producer per

year is excluded for non-compliance (KM_P2). In the general assembly, all the members present take the final decision about the admission of new members or new products, as well as the exclusion of members (KM_P1, KM_P2). Besides the visits, compliance with internal guidelines is continuously monitored by other producers at the market and reported back to the respective market’s PGS contacts (KM_P1, KM_P2). Co-producers are also invited to report any suspected noncompliance, either directly to the PGS contacts at the markets or on the website where there is a dedicated section for complaints. This is a form of ongoing social control that is believed to ensure that all the products sold at the markets are of the expected quality. The markets are therefore considered an integral part of the guarantee procedure and a fundamental aspect of PGS participation (KM_P1, KM_P2).

4.3.3 Frequency of participation

General assembly’s take place every 2 months, and are mostly held at weekends to avoid clashes with market days or other work commitments, while market meetings are held monthly immediately before or after the markets’ opening hours (KM_C2). The frequency of PGS WG meetings was assessed by KMs to be once every 2 months, but was also indicated to be flexible and adaptable to producers’ urgent requests (KM_P1, KM_P2). It was not possible to give an average number of PGS visits since they depend on the number of producers requesting a visit in a given period of time. The Agenda WG meets 3 weeks before the general assemblies (KM_A2), the IT WG meets four times a year to perform its tasks (KM_C3), and the frequency of the meetings of the Strategic WG depends on current issues (KM_A1).

General assemblies require between a half and a full working day (four to 8 h) (KM_A2). Market meetings last between two and 3 hours (KM_A1).

The duration of PGS visits depends on the farm’s size, the diversity of the produce, and the reason for the visit, i.e., admission may require longer to collect all the answers. The duration of PGS visits, including

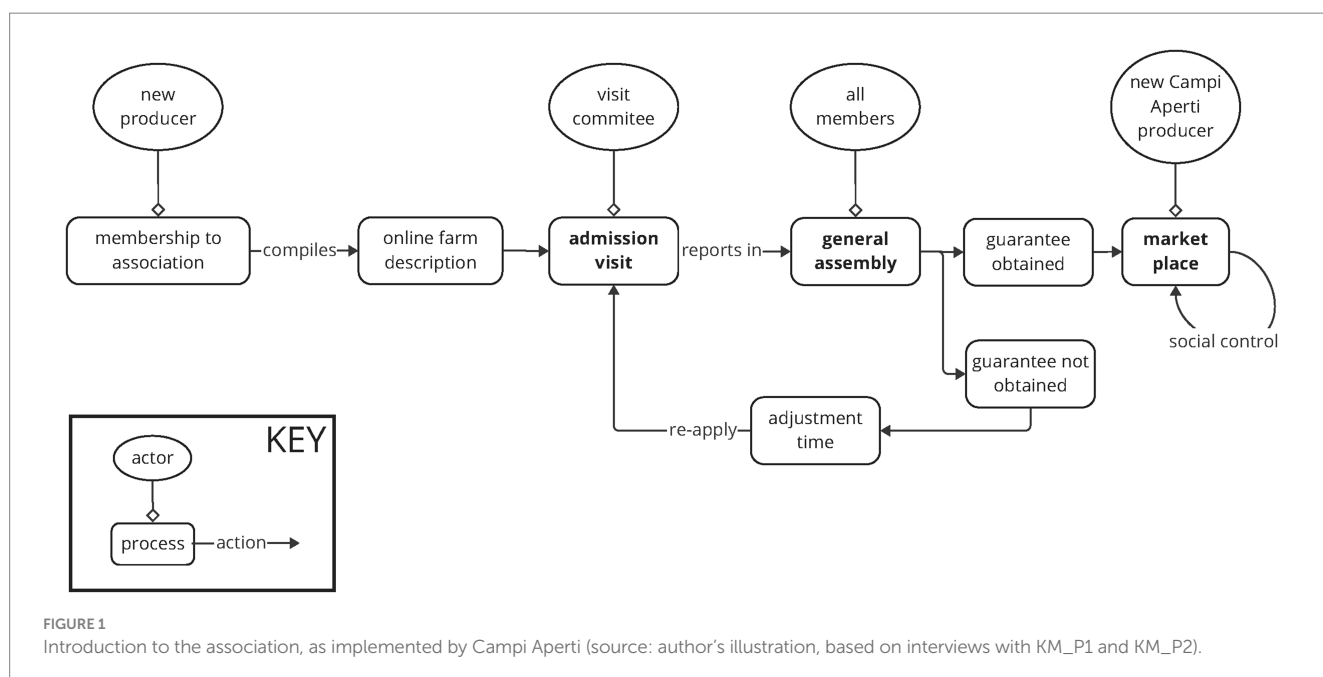


TABLE 4 Frequency of participation of producers and co-producers in the main activities of Campi Aperti in 2020.

Type of activity (times per year)	Producers times per year, μ [σ]	Co-producers times per year, μ [σ]
A. General assembly (6)	4.21 [1.08]	0.78 [1.62]
B. Market meeting (12)	5.07 [2.87]	0.59 [1.37]
C. PGS admission visit (n.a.)	0.71 [0.96]	0.14 [0.44]
D. PGS integration visit (n.a.)	0.36 [0.89]	0.48 [1.95]
Average yearly participation (total A-D)	2.59	0.50

Producers $n = 100\% = 14$, co-producers $n = 100\% = 27$, μ = arithmetic mean, σ = standard deviation, n.a. = no average frequency indicated.

traveling distances, was estimated to be between three and 8 hours (KM_P1).

In terms of individual members' participation, based on the survey the average time members dedicated to all the activities of the association was 5.38 working days per month for producers and 0.91 days for co-producers. In the survey, 57% of the 14 producers said that they participated in one or more WGs, and 36% said that they specifically held a role on the executive board or as a coordinator of a WG. Nine co-producers considered themselves active, mentioning their main activities as looking after communication for the association on social networks, attending general assemblies, and going to the markets; only three stated that they actually participated in WG activities and two stated that they covered any role in the association. Producers emerged as the most active within Campi Aperti: one of the coordinators estimated that the association is 80% run by producers and that, among the numerous co-producer members, around 15 could be defined as being "active in the life of the association" (KM_A2). Indeed, average participation in activities was higher for producers, especially in the case of assemblies and meetings (Table 4), but claims were made that only some of the producers – and often the same ones – were particularly involved in Campi Aperti's activities (KM_A2, KM_C1). As reasons for non-participation, co-producers cited being active in other initiatives, not knowing the initiative well enough, or not knowing how to participate actively.

4.4 What kind of participation: implementation, benefits and drawbacks of participation

4.4.1 Implementation of participation

Apart from the time they voluntarily give, members participate in the association's life financially and in terms of the knowledge and resources shared. Producers pay an annual membership fee of 15 euros and make a "voluntary contribution" of 6% of their monthly income from the market to cover market costs (KM_A1, KM_A2). Other ways to financially support the association is an annual membership card that co-producers can buy, knowing that the money will be invested by Campi Aperti in ongoing projects. However, this should be considered as additional support from co-producers since not having a membership card does not prevent anyone from shopping at Campi Aperti markets (KM_A2):

"[members] do not necessarily coincide with all the people who come shopping at the markets; there we are talking about thousands, not hundreds. Let us say that membership is interesting for us because in addition to paying the basic membership fee of € 7,

individuals can also decide to pay a multiple of 7 to support the association's additional activities" (KM_A1).

Contribution to knowledge was identified, for example in the IT expertise provided by one co-producer in particular, but cultivated and shared by a couple of other members within the IT WG (KM_A1, KM_C3). These skills have helped with managing the website, digitalizing a description file of all producers, and developing a cloud for information storage (KM_C3). On the agricultural side, it is established practice that more experienced producers tutor other producers who still need to align themselves with PGS guidelines, sharing their expertise (KM_P1, KM_P2), as also reflected in this KM's reasons for participating in the PGS WG:

"I had some experience in the field of organic certification because my farm is certified with ICEA (...). Therefore, it was natural for me to join the PGS WG: to conduct entry visits and explain a bit to the interested farmers, if they were suitable, how Campi Aperti works and our guidelines. These guidelines have been formulated and continuously discussed by the association" (KM_P2).

Furthermore, mention was made of the sharing of market stands – and therefore of transport and logistics – or of risks and incomes from production between two or more producers (KM_A1, KM_C2, KM_P2).

4.4.2 Benefits and drawbacks of participation

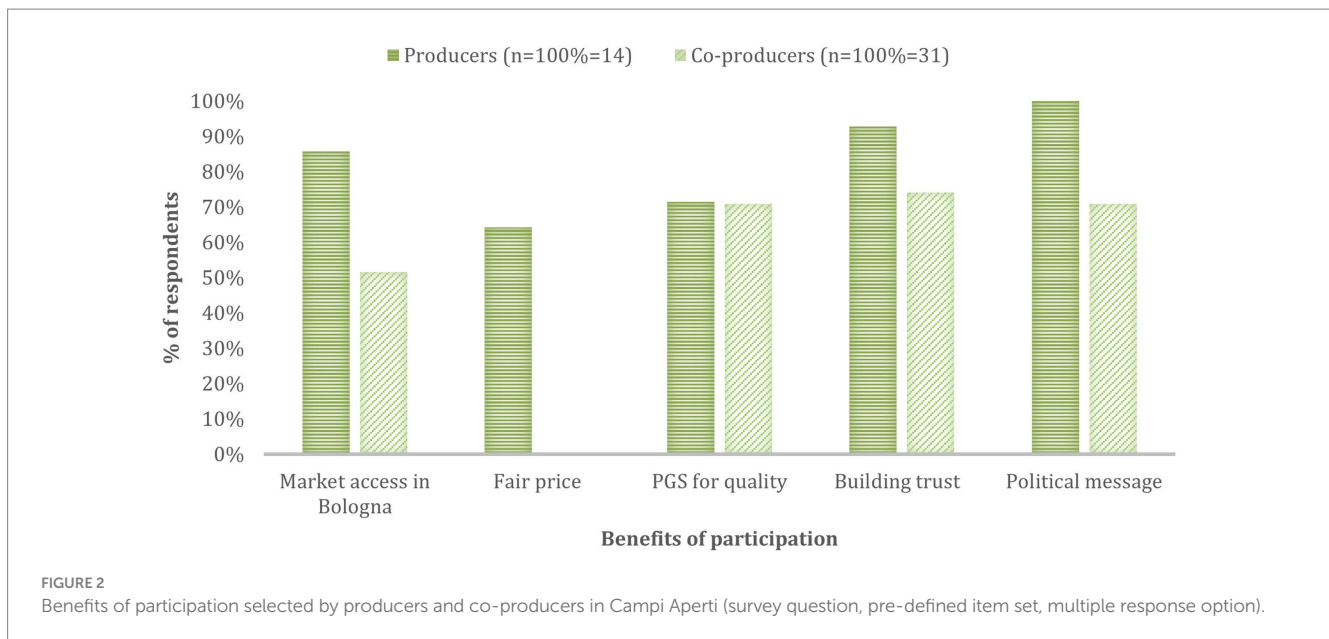
The constitution of the community markets in Bologna was defined as

"giving an economic opportunity to small-scale producers and outside-the-norm transformers, a concrete alternative to mainstream and large-scale agriculture and marketing" (KM_C1).

As one KM, a founding member of Campi Aperti, explained:

"Our objective has always been to support those who choose to produce in a different way, in contrast to industrial agriculture" (KM_C1).

The advantage of such markets is that all the producers pay a voluntary market contribution in proportion to their income from the markets, and can therefore start or participate even with small volumes of products (KM_A1, KM_C2). This constitutes a major advantage, particularly for people who are just starting their agricultural activity:



“Campi Aperti is a great business incubator. For many, it represents an opportunity to get their business experience off the ground with the markets. Agricultural production, when you start out, is necessarily going to suffer from inexperience. If you do not already have a family business set up, for many who decide to start out, it’s riddled with all kinds of mistakes (financial, technical...). [Here you] have the opportunity to be welcomed into a system that not only allows you to bring your products, no matter how few they are, but is also a system where the goal is for everyone to grow together and where therefore skills are not jealously guarded by individuals (...)” (KM_C2).

The markets are organized to ensure that not too many producers of the same product category attend the same market, thus avoiding competition and having new producers on a “waiting list” or as temporary substitutions in the event that another producer is missing from the markets (KM_C1, KM_P1). The price resulting from direct marketing allows product prices to be kept lower – compared with intermediated sales – therefore local and high-quality products are more accessible for co-producers (KM_A2, KM_C2).

Indeed, around 85% of the producers who responded to the survey agreed on the benefit of going to the markets in Bologna, and 64% on achieving a fair price for their products at the markets (Figure 2). For co-producers, 50% agreed on the benefits of going to Campi Aperti markets, although they did not necessarily perceive the price to be fair. Having the PGS as a way to guarantee product quality was seen as beneficial by around 70% of both the producers and co-producers who responded to the survey. The PGS within Campi Aperti is considered to be more reliable and/or more respectful of given standards – e.g. agricultural workers’ rights – compared with the organic TPC (KM_C1, KM_A2), as the following quote illustrates:

“With TPC (...), they are just good at checking the papers. You could easily trick them. I do not care about the papers. I see on the field what’s going on. In my opinion, TPC checks are ridiculous. If you want to avoid being caught by certifiers, you make sure all your papers are in order” (KM_P2).

Building trust was perceived as a benefit of participation by more than 70% of respondents (Figure 2). KMs defined trust between producers as them not seeing each other as competitors but rather as allies, and toward co-producers by being transparent and at the forefront of guaranteeing product quality (KM_C1, KM_P1, KM_P2), as was further illustrated by KMs:

“I got to know the people. From the very beginning of Campi Aperti, what I liked was the desire to be a community, to never lose sight of this aspect, and that we uphold very profound values, such as solidarity, sharing and networking. In my opinion, there is so much recognition for the work of small agricultural producers in Campi Aperti; there’s no confusion about this value in Campi Aperti” (KM_P1).

“You have to network. I mean the only way is to connect with other people. Networking means rolling up your sleeves and working not only in the fields, but also outside to build these networks and, yes, this is definitely the hard work (...). But it’s clear to all of us that we also aim to have other benefits, which are precisely those gained by investing time and energy in building relationships. I mean, to build trust, including between producers, is to know that you can rely on the fact that if your tractor breaks down, there are dozens of people near your house who could lend one to you. Or, for instance, three years ago a tornado struck the Apennines region and five farms were almost destroyed. So we mobilized, we did work camps of 40, 50 people a day to put up greenhouses, tarpaulin structures, and canopies” (KM_A1).

A direct connection between producers and co-producers at the markets is considered key to the process of building trust and sharing knowledge, and to pursuing food sovereignty (KM_A2):

“For co-producers I believe that there’s an encounter with those who produce and it’s a source of great awareness and enrichment in terms of knowledge. And you build mutual trust, which is truly comforting from a social and community perspective. For the co-producers, it’s about becoming part of a system and not just being

a user of it, as in a supermarket, where you are asked to choose between one brand of bread and another or between a bagged artichoke and a loose one. In contrast, you have the opportunity to participate in assemblies that are open to everyone” (KM_C2).

Over the years, the combined effort and political lobbying toward shared objectives have allowed Campi Aperti members to acquire self-organized market spaces and, together with their fellow AFNs, gain recognition for PGS and peasant agriculture as examples of solidarity economies in a regional law (LR 19/2014) (KM_A1, KM_C2). The survey revealed that sending a political message concerned with food sovereignty, i.e., self-determination of production, transformation, certification, and marketing of foodstuff, was perceived as a benefit of participating in Campi Aperti by 100% of producers and by around 70% of co-producers.

One drawback shared and selected by more than 50% of producers and co-producers was not being able to dedicate sufficient time to the association’s activities. The increase in the number of producers in the association means that its management is more time-consuming (KM_P1), and requires changes in the association’s structure:

“At the beginning we were able to do everything in the general assemblies. Later on, we became too numerous, so we started structuring the working groups.” (KM_P2).

At the time the research was conducted, Campi Aperti was working toward further decentralizing some activities and decisions, such as PGS visits. The plan is for these to be organized autonomously and evaluated by the producers in a specific geographical area before the PGS WG presents the decision to the general assembly. This new structuring of the association, however, has not yet been implemented (KM_P1, KM_A2, KM_C2). Another drawback of participation that emerged was the relationship with the city council of Bologna, which was reported as being “ambivalent” and “a cause of conflict” by several interviewees (KM_A1, KM_A2, KM_C1, KM_C2). This drawback was perceived by more than half of the producers who responded

(57%), while for co-producers it was less relevant (12%). Finally, according to the KMs, internal conflicts between members are not uncommon. Suspected non-compliance communicated to and by the PGS contacts, as well as discussions about a producer’s exclusion at general assemblies, are still delicate issues and it can take a long time for a decision to be reached (KM_C1, KM_P1, KM_P2).

4.5 Why: reasons for joining Campi Aperti

Since its formation, the purpose of Campi Aperti has been “to constitute a small political group with the aim of self-organizing and managing farmers’ markets” (KM_C1), and its activities are now seen as “a way to launch a political message for self-determination, food sovereignty, and peasant agriculture” (KM_A2). More than 70% of both types of respondents cited sharing the association’s principles as the main reason for joining the association (Figure 3). The approach chosen to achieve its principles – i.e. “collective decision-making, being a social and solidarity network, linking the rural and urban environment” (KM_C1) – was mentioned as another reason for participation by 50% of co-producers and 23% of producers.

Another important reason for joining is the direct marketing approach, as one KM explained:

“Being part of Campi Aperti also provides opportunities to develop activities that offer good financial prospects for the future” (KM_C1),

including within this concept small-scale farmers who are not necessarily officially organically certified or who do not comply with food processing guidelines, but can join the Genuino Clandestino network. More than 50% of the producers agreed with this point. The success of the community markets was driven by the increasing number of co-producers going there to shop, praising the quality and price of products:

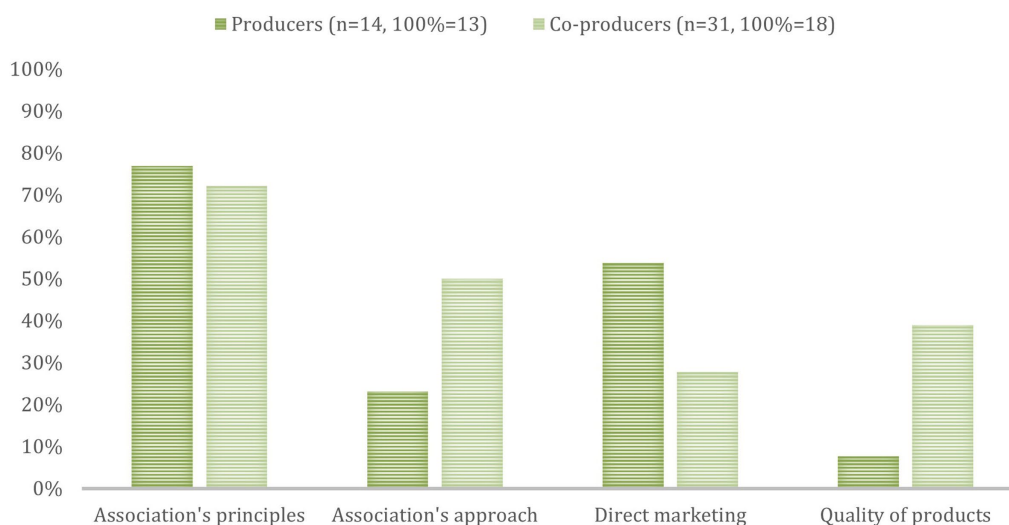


FIGURE 3

Reasons for joining the initiative mentioned by producers and co-producers in Campi Aperti (survey question, voluntary, open-ended question).

“Co-producers come to Campi Aperti markets because they want good products, they are not seeking out perfect-looking ones” (KM_P1).

Indeed, co-producers mentioned the approach of direct marketing (27%) and the quality of the products (38%) at the markets as reasons for joining Campi Aperti. Lack of time was the reason for non-participation in PGS activities mentioned most frequently by both producers and co-producers; other restrictions to participation cited by co-producers were being active in other initiatives and a perceived lack of knowledge about the structure and modes of participation in the PGS.

5 Discussion

5.1 PGS in the EU regulatory framework

The growing dimension of Campi Aperti in terms of markets and producers asking to participate shows the success of this initiative over two decades, but also presents it with challenges. In fact, an increased number of PGS visits to be organized and markets to be managed has made it necessary to employ members, thus incurring a cost for PGS coordination. While this may help the PGS run smoothly, it also shows the limits of primarily having to rely on members volunteering their time to manage PGS initiatives and poses the question of how to generate income, as also raised by Binder and Vogl (2018) for example. Other PGS initiatives worldwide rely on funds from NGOs, but they then become very dependent on project-based funding; a lack of resources for PGS management can be a reason for it ultimately not being successful (Nelson et al., 2010; Home et al., 2017). Where PGS are legally recognized, as in several Latin American countries, government support can help with administrative costs and accessibility to broader value chains, yet this requires a degree of institutionalization of PGS that is not without its challenges (Rosina Bara et al., 2018; Anselmi and Vignola, 2021; Hruschka et al., 2021; Jacobi et al., 2023). Despite legal recognition, national governments are still showing a low degree of awareness about PGS distribution, functioning and motivations, preventing such initiatives from accessing financial or technical support or from accessing exporting supply chains (Hruschka et al., 2024). Given the EU’s regulatory framework, access to CAP public funding connected to organic farming is limited to TPC organic producers. Therefore, to access funds and open up wider marketing opportunities where TPC is required, it is not uncommon to find PGS members who are also TPC-certified (Sacchi, 2019; Niederle et al., 2020). The recognition from, and relationship with, institutions could constitute an important feature in order for PGS to exist, expand and acquire resources that are crucial for their functioning, but may also cause increased bureaucracy and standardization, in the view of experts (Sacchi et al., 2024). The case study of Campi Aperti provides an example of a rather conflictual relationship with the institutions, i.e., the city administration, and thus it relies largely on its own resources, i.e., members volunteering their time, as well as its own guidelines, as in the treatment of agricultural workers. The question of the effect of a more or less

enabling institutional environment – in terms of regulations, recognition, and marketing channels – on the overall success of this and other PGS in the EU remains unresolved.

5.2 Outcomes of participation

In Campi Aperti, market access was reported to be a perceived benefit and also a reason for producers to participate in the PGS. It could be argued that markets in this case constitute both a material benefit, when gaining access to them, and a social benefit as they constitute an important place of social encounter and knowledge exchange (Cohen and Uphoff, 1980). This is a reason to join, at least for producers, and a reason to stay and participate more. Material benefits of participation in PGS were also found in Spanish (López Cifuentes et al., 2018) and Chilean (Hruschka et al., 2021) initiatives, with an increase in income connected to organic premium prices for PGS-certified producers. However, there is no common marketing strategy among Chilean PGS (Hruschka et al., 2021). A distinctive feature of the PGS implemented by Campi Aperti is that it seeks to avoid competition among producers in the same categories and keep access to markets open but regulated. Members of Campi Aperti showed a high level of trust in the PGS as a way of guaranteeing organic quality, but also experienced conflicts and mistrust among members in the event of noncompliance. As previous case studies in Europe and Latin America have shown, personal issues (López Cifuentes et al., 2018) and conflicts between members are not new to PGS, where the dynamics of conflict resolution are often lacking and noncompliance is managed with partial reliance on unwritten norms (Hruschka et al., 2021; Dorville and Lemeilleur, 2023). Internal conflicts among members and, in the case of Campi Aperti, externally with institutions could also be related to a lower willingness to participate, as also reported in earlier case studies (Kaufmann and Vogl, 2018).

Knowledge in Campi Aperti emerged as a resource to be shared between members, rather than as a benefit, as is the case for PGS producers in Chilean (Hruschka et al., 2021) and other Italian PGS (Sacchi, 2019). In the present case study, respondents did not perceive a lack of specialist agricultural knowledge to be a limiting factor for participation in PGS visits, which is in contrast to the findings from numerous other initiatives worldwide (Nelson et al., 2016; Binder and Vogl, 2018; Cuéllar-Padilla and Ganuza-Fernandez, 2018; Hruschka et al., 2021).

Concerning the challenges encountered, the need for members to devote their time remains the most limiting factor for their active participation. The significant amount of time required for the PGS has also been identified as a major barrier to the adoption of PGS in Spain (López Cifuentes et al., 2018). Limited participation was mentioned in the Campi Aperti members’ responses, but it should not be forgotten that the COVID-19 pandemic meant that markets could not take place and member meetings were held online for parts of 2020 and 2021. Hruschka et al. (2021) identified travel distance as a key variable hindering participation in farm audits and PGS meetings, given Chile’s geography. Even though this variable was not specifically detected in the present case study, the issue is closely connected with the intention to decentralize PGS structures. Indeed, the organization of activities and decision-making in closer geographical areas might reduce travel distances

for visits and the distribution of responsibilities, as shown in Brazil's Rede Ecovida and France's Nature et Progrès PGS (Zanasi et al., 2009; Niederle et al., 2020). Given the restricted participation due to time constraints, the concentration of responsibilities and knowledge in the hands of a few more experienced and engaged members was reported in Campi Aperti. Other case studies elsewhere in the world have shown similar results (López Cifuentes et al., 2018), questioning the principles of horizontality and transparency that should characterize PGS (Nelson et al., 2010; Kaufmann and Vogl, 2018; Hruschka et al., 2021). Furthermore, the issue of limited consumer involvement in PGS activities is not new to the literature (Sacchi, 2015; Nelson et al., 2016; Cuéllar-Padilla and Ganuza-Fernandez, 2018; Kaufmann and Vogl, 2018; López Cifuentes et al., 2018; Kaufmann et al., 2023a), although the difficulties of including consumers in empirical research on PGS should not be underestimated (Binder and Vogl, 2018). This study has provided examples of other ways in which consumers can contribute to (1) the guarantee process, by being part of the social control at the marketplace, an important element of Campi Aperti's PGS, (2) other activities involved in running the association, by being active in IT and communications, and (3) the association's finances, by paying a membership fee and supporting PGS producers when shopping.

Finally, the political message embedded in members' participation in Campi Aperti – achieved in particular by lobbying for self-organized markets and the guarantee process – emerged both as a benefit and a reason for joining. The framing of reasons for participation as political and as critical of the organic regulatory framework has emerged in other PGS initiatives in Spain (Cuéllar-Padilla and Ganuza-Fernandez, 2018; López Cifuentes et al., 2018), France (Niederle et al., 2020) and Italy (Sacchi, 2019). Sociopolitically-oriented consumers and collective action to support local food economies have also been identified as driving factors behind current consumer participation in AFNs (Zoll et al., 2018; Sacchi et al., 2021). These findings provide evidence that a shared vision among PGS participants can be a determining factor in their success (Rosina Bara et al., 2018).

6 Conclusions and outlook

This article contributes to a greater understanding of participation in PGS through the application of a theoretical framework (Kaufmann et al., 2020). The case study of Campi Aperti sheds light on how PGS members take part in its activities, the perceived benefits of doing so, what prevents them from participating, and finally why they chose to be part of the PGS. Campi Aperti is a particular case of a self-determined, urban-based PGS with a bottom-up construction of participation and a strong political motivation behind participation connected to the claims of food sovereignty.

The success of this PGS is closely connected with the context of the city of Bologna and its inhabitants, constituting a large body of consumers willing to support Campi Aperti producers by shopping at the markets. Consumers, meanwhile, benefit from access to fresh, high-quality products that, whether or not they are aware of the PGS process, they perceive to be trustworthy and politically denoted. The support from consumers might also be a reason for continuing to run the markets, despite several challenges posed by the relationship with the city administration.

Limited financing for and time volunteered to the initiative as well as growing membership numbers are variables that might greatly influence the continuance of this PGS. Moreover, this research, like other research before it, provides evidence of the difficulty of quantifying the resources, in terms of time and money, needed to run a PGS compared with TPC. Other studies have only recently started to address this (Kaufmann et al., 2023b). Quantifying the dimension of the PGS phenomenon in terms of consumer numbers or shopping volumes could also provide additional information about the extent of, and resources derived from, participation. Further analysis might include elements of participation that could not be investigated in this study, for instance reasons for non-participation, particularly from a consumer's perspective, and members' evaluation of the kind of participation found in the PGS.

Data availability statement

The original contributions presented in the study are included in the article/[Supplementary material](#), further inquiries can be directed to the corresponding author.

Ethics statement

Ethical review and approval was not required for the study on human participants in accordance with the local legislation and institutional requirements. Written informed consent from the study participants was not required to participate in this study in accordance with the national legislation and the institutional requirements. Oral informed consent to participate in this study was provided by the participants.

Author contributions

GW: Conceptualization, Data curation, Formal analysis, Investigation, Methodology, Visualization, Writing – original draft, Writing – review & editing. SK: Conceptualization, Funding acquisition, Methodology, Validation, Writing – review & editing. NH: Methodology, Validation, Writing – review & editing. CV: Conceptualization, Funding acquisition, Project administration, Supervision, Validation, Writing – review & editing.

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Conflict of interest

The authors declare that the research was conducted in the absence of any commercial or financial relationships that could be construed as a potential conflict of interest.

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Supplementary material

The Supplementary material for this article can be found online at: <https://www.frontiersin.org/articles/10.3389/fsufs.2024.1388853/full#supplementary-material>

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