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Opportunities and challenges of food policy councils in pursuit of food system sustainability and food democracy—a comparative case study from the Upper-Rhine region

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Conventional food systems continue to jeopardize the health and well-being of people and the environment, with a number of related Sustainable Development Goals (SDGs) still far from being reached. Food Policy Councils (FPCs)—since several decades in North America, and more recently in Europe—have begun to facilitate sustainable food system governance activities among various stakeholders as an explicit alternative to the shaping of food systems by multinational food corporations and their governmental allies. In contrast to the former, FPCs pursue the goals of food system sustainability through broad democratic processes. Yet, at least in Europe, the agenda of FPCs is more an open promise than a firm reality (yet); and thus, it is widely unknown to what extent FPCs actually contribute to food system sustainability and do so with democratic processes. At this early stage, we offer a comparative case study across four FPCs from the Upper-Rhine Region (Freiburg, Basel, Mulhouse, Strasbourg)—all formed and founded within the past 5 years—to explore how successful different types of FPCs are in terms of contributing to food system sustainability and adhering to democratic and good governance principles. Our findings indicate mixed results, with the FPCs mostly preparing the ground for more significant efforts at later stages and struggling with a number of challenges in adhering to principles of democracy and good governance. Our study contributes to the theory of sustainable food systems and food democracy with the focus on the role of FPCs, and offers procedural insights

on how to evaluate them regarding sustainable outcomes and democratic processes. The study also offers practical insights relevant to these four and other FPCs in Europe, supporting their efforts to achieve food system sustainability with democratic processes.

KEYWORDS

food policy council, sustainable food system, food democracy, good governance, evaluation

Introduction

Food Policy Councils (FPCs) started to evolve 50 years ago in North-America and have been developed in western Europe since the mid-2010s (De Schutter, 2018). A milestone was the launching of the Milan Urban Food Policy Pact in 2015, which has supported the founding of FPCs in several European city-regions. FPCs are groups of various stakeholders joining forces to develop solutions and reform policies in order to transform food systems toward sustainability, i.e., systems that produce and distribute foods in ways that secure sufficient livelihoods, protect the environment, and foster health and well-being (cf. Halliday et al., 2019). As such, FPCs have been developed in response to unsustainable development of food systems driven by corporate interest and government allies (Bassarab et al., 2019). Thus, FPCs aspire to inclusiveness and democratic principles, involving stakeholders from across the food system, i.e., food businesses, governmental agencies, civil society organizations, universities, consumers (Carlson and Chappell, 2015; Halliday et al., 2019; Santo, 2019).

While FPCs have received acclaim for their aspirations and accomplishments regarding sustainable outcomes and democratic processes (Harper et al., 2009; Carlson and Chappell, 2015; Bornemann and Weiland, 2019a), studies on FPCs also point to shortcomings regarding clear goal orientation (Sieveking, 2019), system-level change aspirations (Gupta et al., 2018), involvement of all relevant stakeholder groups, including local farms and other food businesses (Harper et al., 2009; Halliday et al., 2019), inclusion of under-represented community voices (Bassarab et al., 2019), and efficient decision-making (Sieveking, 2019). Moreover, little evidence has been produced about the actual contributions of FPCs to sustainable food system transitions (Harper et al., 2009; Calancie et al., 2018). Both accomplishments and shortcomings are linked to a variety of factors, including history, governance structure, funding, etc. of individual FPC (Harper et al., 2009; Gupta et al., 2018; Bassarab et al., 2019; Halliday et al., 2019).

While empirical studies on FPCs have focused on single case studies (e.g., Packer, 2014; Horst, 2017; Sieveking, 2019; Pax and Reckinger, 2022) or on high-level surveys of large samples of FPCs (e.g., Harper et al., 2009; Scherb et al., 2012; Calancie et al., 2018; Santo and Moragues-Faus, 2019), more in-depth

comparative studies of a smaller set of FPCs in a given region are an exception (Gupta et al., 2018). Such comparative studies offer advantages over the former two - they allow for more detailed analyzes of the factors that influence success or failure than high-level surveys of large samples of FPCs, while still offering some level of generalization as opposed to case studies on single FPCs. In addition, using a small sample from one particular region allows for meaningful comparison across FPCs in a similar regional context, while exploring different approaches FPCs might take. Considering the early stage of in-depth research on FPCs in Europe, one also has to consider limited data accessibility and availability of experts when sampling for such a comparative study.

Against this background, we conducted a comparative study on four FPCs from the trinational Upper-Rhine Region in western Europe, namely, Freiburg (Germany), Basel (Switzerland), Mulhouse (France), and Strasbourg (France). This study addresses the following research questions: *first, to what extent do these FPCs contribute to sustainable food system transformations; and second, to what extent are the processes these FPCs employ aligned with principles of food democracy and good governance?* While these questions are relevant for FPCs around the world, we focus here on FPCs in western Europe where their development is still at a nascent stage and initiators are looking for empirically supported guidance. The early stage of development—all have been initiated in the last 5 years—poses some challenges, e.g., continuous formation processes and assessment of attributable impacts; yet, the emergence of FPCs in this trinational region offers a unique opportunity to learn from diverse socio-economic-political settings and join forces across borders. The early development stage allows for adjustments that are more easily implementable than when FPC structures have hardened. We included two FPCs from the French part of the Upper-Rhine Region to check for similarities and differences within the same national context. For the comparative analysis, we adopted a pragmatic version of the logic model of evaluation, differentiating among goals, processes, outputs, and outcomes (Boni et al., 2019).

This study contributes to the literature on FPCs and food democracy by emphasizing the variety as well as the advantages and disadvantages of different FPC “models.” The operationalized and applied frameworks of food system

sustainability, food democracy, and good governance might be of use for both researchers and practitioners. And last but not least, this study offers practical guidance for FPCs, particularly for those in planning and under development.

Food policy councils

Food Policy Councils (FPCs) are *networks of stakeholders from government, business, civil society, and citizens, that use democratic institutional structures to engage in exploring, planning, implementing, evaluating, and adapting sustainable food system initiatives* (cf. Schiff, 2008; Harper et al., 2009; Mooney, 2022)¹ FPCs have been established all over the world, with large numbers in North America, Europe (particularly in the UK, Germany, Austria, the Netherlands, France, Switzerland), and Australia. Some notable FPCs were also founded in Africa and South America (e.g., “Food Change Labs” in Uganda and Zambia)². Labeling of FPCs varies. They are called “Food Policy Council” in North-America, “Food Alliance” or “Food Policy Coalition” in Australia, “Food Policy Alliance” in the UK, “Food Council” (“Ernährungsrat”) in Germany, “Food Forum” (“Ernährungsforum”) in Switzerland, or “Regional Food Project” (“Projet Alimentaire Territoriale”) in France. Considering that the first (formal) FPCs were founded in the U.S. and Canada 40 years ago (first one in Knoxville, Tennessee, in 1982), we use “Food Policy Council” as the overarching term. However, the accuracy of the qualifier “policy” has been called into question (Schiff, 2008; Stahlbrand and Roberts, 2019), and thus, we use the broad definition presented above.

Below, we provide an introductory overview of FPCs’ relevant features, including level of operation, organizational form, governance principles (food democracy), goals (food system sustainability), programs/projects, funding, and evaluation. The next section will then provide more details on the key perspectives adopted, operationalized, and applied in the present study (food system sustainability, food democracy).

FPCs usually operate on a local/regional or municipal level, although there are some FPCs on the state/provincial and national level, too (Mooney, 2022). This focus on the local level is often linked to many FPCs’ explicit “localist (food) strategy” with opportunities and challenges to create impact on other levels (ibid.).

FPCs have different organizational forms or structures, ranging from non-profit organizations through hybrid forms to being housed in the (local) government (Santo, 2019). Irrespective of the specific organizational form, FPCs intend

to realize or advance “*food democracy*” (Bassarab et al., 2019; Sieveking, 2019), which is present in several features. First, a range of organizational structures for oversight, coordination, advice, etc. allow different stakeholders to engage in leadership, assisting, partnership, and other self-governing roles. Second, membership in FPCs is most often open to anyone with an interest in sustainable food system issues and willing to abide by democratic principles (both individuals and organizations). For instance, FPCs in Germany are characterized as a movement that allows anyone to contribute to a sustainable transformation (Sieveking, 2019). Third, outside of regular membership, FPCs through their programs and projects often build *institutional partnerships* with government agencies, businesses, and civil-society organizations that are active in transforming current food systems toward sustainability; these partnerships are also based on democratic practices, including collective control and decision-making. Fourth, FPCs *partner with the (local) government*, as a major manifestation of democratic governance. Form and extent of this partnership varies though—in some cases, the (local) government takes a very active role (leadership, funding, etc.), in other cases, the (local) government is merely involved (Gupta et al., 2018; Prové et al., 2019). In France, for example, FPCs have been financially supported by the federal government (through the National Food Program) quite significantly, just recently with an extension by another 80 million Euros (2020–2021). In return, there has been some strong governmental oversight of FPCs in France. Strong links to the (local) government has led some FPCs to a limited scope of activities, mostly focusing on food policies (Gupta et al., 2018). This limited focus as well as government ties to multinational agri-food corporations have called over-reliance by FPCs on governmental support into question (Mooney, 2022).

While food democracy serves as the procedural guiding principle, *food system sustainability* serves as the substantive one (for outcomes). FPCs pursue sustainability through numerous strategic (general) goals in line with their overarching vision. Despite terminological differences, there is good convergence on common goals across almost all FPCs. Calancie et al. (2018) have extracted from 300+ initiatives of FPCs ($n = 66$) in the U.S. six goals or impact domains:

- Supporting resilient food systems;
- Increasing access to healthy foods;
- Supporting economic development;
- Promoting equity in the food system;
- Promoting environmental sustainability;
- Increasing knowledge of or demand for healthy foods.

These align with widely accepted food system sustainability principles (FAO, 2014). While FPCs overall cover all relevant dimensions of sustainability across all sectors of the food system (from production to consumption and reuse), individual FPCs’ approaches to sustainability vary, ranging from more

¹ The following description of key features of FPCs is based on Wiek and Gascón (2021).

² For a recent overview, see Volume 36 (2019) of the “Urban Agriculture Magazine”, focusing on FPCs.

comprehensive approaches to addressing only a few select goals (e.g., healthy food access, food justice). A growing number of FPCs also adopt a “zero-emission food” goal related to climate commitments (Paris Agreements), which reflects a “top-down” approach (from international and national levels) as opposed to “bottom-up” approaches of social goals resulting from engagement with local communities (Prové et al., 2019).

In addition to (strategic) action domains, which often directly correspond to the strategic goals, FPCs channel their work into *programs and projects*. While action domains and goals remain constant over several years, programs and projects are “transient” as they get initiated and completed. FPCs rarely conduct programs and projects on their own; in most cases, they rely on cooperation with institutional partners. Depending on available funds and other resources as well as available capacity and expertise, the programs and projects of FPCs vary greatly with respect to effectiveness and efficiency.

Funding for FPCs varies significantly, with *annual budgets* ranging from close to zero to million Euros. Some FPCs have paid staff and/or (large) funded programs and projects, others rely completely on in-kind contributions and volunteers (Bassarab et al., 2019). FPCs in the U.S. have used different funding models (Johns Hopkins Center for a Livable Future³), but are, in general, severely underfunded, with almost 70% of FPCs operating on an annual budget of <\$10,000 (Bassarab et al., 2019). Funding sources vary from annual government support to membership fees, research or other grants, private foundation support, and donations.

FPCs’ structures and activities are rarely evaluated (Scherb et al., 2012; Bassarab et al., 2019); and even if so, evaluations are limited to individual FPC or FPCs within a particular region/state (Porter et al., 2020; Thompson et al., 2020). One reason for this gap is that there is quite some remaining vagueness on the normative foundation in theory and practice of FPCs. Both, food system sustainability and food democracy are often insufficiently operationalized, which hinders evaluation, progress tracking, and continuous improvement. Thus, in the following section, we briefly review the theoretical base of both normative references on food system sustainability and food democracy and derive a set of criteria for use in evaluative and comparative studies on FPCs (including the one presented below).

Theoretical perspectives on FPCs—food system sustainability and food democracy

FPCs are among the various initiatives that seek to change the way food systems have been commercialized, industrialized, scaled, and globalized over the last century. In

terms of their normative framing, they can be interpreted as networks that connect sustainability orientation with ambitions of democracy and good governance. FPCs address the unsustainability of existing food systems and aim at their sustainability transformation by initiating participatory, collaborative, and deliberative processes among farmers, food entrepreneurs, consumers, and others. FPCs assume that by fostering dialogue and collaboration among all food system stakeholders, problems can be solved and food systems can be transformed toward sustainability.

On a conceptual level, these output-oriented sustainability ambitions and process-related requirements for democratic food system change are often conflated. As shown above, food systems sustainability includes food systems governance and democratic participation in its social dimension (FAO, 2014); similarly, reference to sustainability is often found in concepts of food democracy (cf. Hassanein, 2008). Here, however, we follow a position that argues for a sharper separation of food sustainability (FS), food democracy (FD), and good governance (GG) in order to allow differentiated analyzes of the interactions between these concepts and related phenomena (Bornemann, 2022). As a conceptual basis for the comparative analysis of the four FPCs in the Upper Rhine region, we set out below different normative objectives in their own right. First, we establish a set of outcome-based sustainability criteria and then a set of process-based criteria to determine the democratic and good governance of FPCs.

Food system sustainability

Food systems are complex and heterogeneous, including economic, environmental, social, and other aspects from food production to consumption and waste disposal (Ericksen, 2008). For several decades, these systems have been industrialized, concentrated, and scaled-up with serious detrimental effects on nature and societies, including pollution of land, soil and water, diet-related chronic diseases and obesity, as well as economic disparities and injustices (Lebel and Lorek, 2008; Guyomard et al., 2012; Clapp, 2015).

There are various calls for structural changes needed to address these challenges and achieve food system sustainability (Foley et al., 2011; WBGU, 2011). Sustainable food systems achieve and maintain “food security under uncertain and dynamic social-ecological conditions, through respecting and supporting the context-specific cultural values and decision-processes that give food social meaning, and the integrity of the social-ecological processes necessary for food provisioning today and for future generations” (Eakin et al., 2017, p. 759). Such general concepts of food system sustainability have been further operationalized into criteria-based food sustainability frameworks, such as the *Sustainability Assessment for Food and Agriculture Systems Guidelines* (SAFA) of the United

³ <https://clf.jhsph.edu/> (accessed March 28, 2022).

Nations (FAO, 2014), or the *Milan Urban Food Policy Pact* (initiated in 2015) that provides a common framework for FPCs and other institutions regarding sustainable food system governance. Similarly, the “farm to fork strategy” adopted by the European Parliament in 2021 aims “to achieve the goals of the *European Green Deal*, including on climate, biodiversity, zero pollution and public health” (European Parliament, 2021).

FPCs have, at times, adopted rather simplified approaches to sustainability though. For example, the strong focus on re-localizing food production and consumption, while it can be an important element, overlooks the fact that short food supply chains are no guarantee for lower GHG emissions nor food justice (Renting et al., 2012; Brunori et al., 2016; Schmitt et al., 2017). Yet, reducing large distances between producers and consumers and establishing direct relations yields benefits including empowerment by offering actions on a scale closer to ordinary human experience, and overcoming the disempowering sense that globalization and commodification of food often creates (Weber et al., 2020).

A number of frameworks have been developed to conceptualize how multi-faceted transformations toward food system sustainability, in a comprehensive sense, could be accomplished (Herrero et al., 2020; den Boer et al., 2021; Lever and Sonnino, 2022). And there are already accounts of numerous efforts by practitioners in food systems that demonstrate how to initiate and contribute to such transformations (Kropp et al., 2020; Weber et al., 2020; McGreevy et al., 2022), including in the Upper-Rhine Region (Wiek, 2020; Wiek and Gascón, 2021). Below is the pragmatic operationalization of food system sustainability in nine criteria, synthesized from the aforementioned literature, that will be used in the present study.

FS-Environmental aspects of a sustainable regional food system include:

- *Env 1* Organic and environmental practices (biodiversity, animal health, etc.), sustainable food consumption (organic products, less food waste, etc.).
- *Env 2* Renewable energy, energy efficiency, offsetting GHG emissions (incl. short supply chains/reduced food miles).
- *Env 3* Circular material (food and packaging) flows (avoiding waste, composting, reusing, recycling).

FS-Social aspects of a sustainable regional food system include:

- *Soc 1* Access to fresh food (canteens with social mission, direct marketing outlets for produce (farmers markets, etc.), community gardens, etc.) and healthy eating habits.
- *Soc 2* Participation in sustainable food system development (NPOs, public events, debates, etc.) [cf. more detailed criteria for food democracy, below].

- *Soc 3* Societal support of the sustainable food economy/system (e.g., local food culture, local food consumption, CSAs, citizen funding for food businesses).

FS-Economic aspects of a sustainable regional food system include:

- *Econ 1* Sustainable businesses (start-ups and conversions), and/or decent jobs, and/or sufficient revenue in sustainable food businesses (incl. farms).
- *Econ 2* Resilience of the food economy (closing gaps through missing services such as regional logistics, cooperation through producer cooperatives or consumer cooperatives/CSAs, local currency, etc.).
- *Econ 3* Sustainable support (social financing, sustainability training, networking, etc.) for sustainable food businesses and organizations.

Food democracy and good governance

FPCs in North-America and Europe have been associated with ideas of (direct) food democracy from the onset. Calls for a democratization of the food system emerged in the early 2000s, and were reinforced through concepts such as civic/alternative food networks (Hassanein, 2003). The concept of “food democracy” was first prominently coined in 1999 by the food scholar and former farmer Tim Lang (Lang, 1999). It develops a critical perspective on the state of the current food system and its organization (Hassanein, 2008; Booth and Coveney, 2015; Bornemann and Weiland, 2019a). The constitution of the current food system is hardly compatible with the idea of (direct) democratic self-determination, as it promotes the disenfranchisement of people with regard to the choice and organization of their food supply. In a system of industrial mass food production run by a small number of multinational corporations, people are disconnected from their food base and left with few opportunities to participate in shaping the food system (Lang, 1999; Hassanein, 2003; Booth and Coveney, 2015; Petetin, 2016). Power is concentrated in corporate farms, lobbying groups, and multinational food corporations, potentially sanctioned by governmental allies, and these alliances largely escape direct democratic control (Hamilton, 2004; Booth and Coveney, 2015). In part, they even proactively seek to retain control over design and values of the food system by opposing the use of consumer information and alternative products and markets (Petetin, 2016). Within national and supranational democratic contexts, agri-food policy is made by a relatively closed circle of political-administrative actors and lobbyists who exclude the general public from decision-making (Daugbjerg and Feindt, 2020).

Central to many definitions and aspirations of food democracy is the idea that people can *directly* influence,

transform and improve the existing food system (Booth and Coveney, 2015). With this, food democracy rather adopts the direct vs. the representational democratic model. Food democracy of this meaning refers to increased opportunities for the public to actively participate in the development of their food systems, which includes developing and promoting alternative views on what food is and how it should be produced and consumed (Petetin, 2016). Proponents of food democracy frequently argue for locally-based and participatory forms of democratic decision-making (Crivits et al., 2016) around agriculture and food, and thereby stress a distinct emancipatory potential. Moreover, beyond the universal “right to food” (Damhuis et al., 2020), food democracy is also concerned with the limited choices of people in food poverty and the public shaming of bad eating habits (Ramel and Boissonnat, 2018). Food democracy recognizes the need to empower marginalized people to become active agents in food system transformations.

The institutional and practical manifestations of food democracy are multifaceted (see special issue on “New Perspectives on Food Democracy” edited by Bornemann and Weiland, 2019b). Accordingly, the discussion on and analysis of food democracy is not limited to FPCs. But FPCs are seen as important means for advancing the democratization of food systems. To what extent FPCs have succeeded in implementing (direct) food democracy, however, has only been partially evaluated in few studies (Bassarab et al., 2019; Bornemann and Weiland, 2019a; Sieveking, 2019). Evaluating the democratic quality or the contribution of FPCs to democratization ought to draw on a comprehensive set of evaluative criteria.

Based on the notion that “all people actively and meaningfully participate in the shaping of food systems,” Hassanein (2008, p. 289), for example, conceptualizes food democracy in terms of five dimensions. The basic premise is that food democracy is based on the combination of collective action by various food organizations, with meaningful participation by individual actors. The latter is conceptualized along four additional dimensions. Participation is meaningful when it enables people to “gain knowledge about food and the food system” and “share ideas about the food system with others.” Further, participation should enable people to develop “efficacy with respect to food and the food system” and “acquiring an orientation toward the community good.” These dimensions are meant as normative characteristics of food democracy and have served as criteria to empirically assess the democratic quality of various food initiatives (Hassanein, 2008; Sieveking, 2019).

Recently, however, there have been increased efforts to tie the concept of food democracy more strongly to (complex) democratic theory (Behringer and Feindt, 2019; Bornemann and Weiland, 2019a). Loosley drawing on these accounts and relating them to basic dimensions of democratic theory (Rowe and Frewer, 2000; Buchstein, 2006; Lidskog and Elander, 2007), we propose to determine the democratic quality of FPCs or their

contribution to democratization on the basis of the following four process-related criteria of food democracy (FD).

- *FD1–Representation* refers to the inclusion of societal stakeholders in the respective FPC and its organizational subunits (Steering Committee/board, Coordination Team, Working Groups, etc.). Central to this is the question to what extent all stakeholders potentially affected by food system policies and other activities are given voice in the FPC. An important aspect is also in how far the selection processes follow democratic principles.
- *FD2–Participation* describes the formal and actual opportunities for the actors involved in the FPC to actively participate in and influence its decisions and actions. Of central importance here are aspects such as open access to processes, but also the availability and accessibility of information, resources, and time.
- *FD3–Deliberation* refers to the quality of the communication and decision-making processes within the FPC. Key is the extent to which *different* positions and voices can be equally articulated in the shaping and consideration of policies, programs and project activities of the FPC, as well as to what extent communication follows a transparent and argumentative logic.
- *FD4–Bindingness* refers to the degree of institutionalization of the FPC within an existing governance structure. The central question here is the extent to which the decisions of the FPC find their way into the formal policy process and have binding force here.

The democratic food governance criteria can be applied to all kinds of food system change initiatives and practices. FPCs, however, represent a specific organized type. Unlike other weakly structured and dynamically emergent bottom-up initiatives, FPCs are seen as a form of collaborative governance designed to achieve food system sustainability and food democracy through the organization of collective action (e.g., Bassarab et al., 2019; Prové et al., 2019). To capture the organizational performance of FPCs, we suggest incorporating principles of good governance (GG) that apply to public initiatives in general and to FPCs in particular (Bassarab et al., 2019; Sieveking, 2019; Porter et al., 2020). These include:

- *GG1–Coherence* refers to the alignment of the strategic action domains, action plans, programs and funds with the goals of the FPC;
- *GG2–Transparency* refers to the sufficient reporting of the FPC activities and decisions;
- *GG3–Accountability* describes the monitoring process and practices implemented in the event of violating agreements);
- *GG4–Feasibility* refers to the sufficient funding and resources for running a (lean) FPC administration;

- GG5–*Action-effectiveness* refers to the outcomes in terms of annual priorities achievement and sufficient progress toward the strategic goals.

Other good governance principles (e.g., expense-efficiency) could not be assessed due to a lack of data.

Case selection-FPC in the Upper-Rhine region

We have selected four FPCs in the Upper-Rhine Region for this study because these FPCs share similar basic attributes (mission, stage of development, etc.), while displaying a number of differences regarding outcomes and governance approaches. While there are some differences in degree and focus, all four FPCs address similar food system challenges, namely, the decline of small farms' economic viability and resilience, continuous trend to economic concentration and associated inequalities, negative environmental impacts of the conventional agriculture and food economy, climate-change induced droughts, affordability of healthy food products, overweight/obesity and other diet-related health issues, lack of skilled labor and interest in farming as profession, as well as lack of innovation and training in food system sustainability. The four FPCs also have similar aspirations, namely, to advance the transition toward a sustainable food system with democratic processes. Moreover, they are all in a nascent stage, founded within the last 5 years or still under development. Thus, they struggle with both, becoming effective in the pursuit of food system sustainability and establishing sound democratic processes. This provides relevant cases to explore the effectiveness of emerging FPCs and provide guidance to similar FPC initiatives in Europe. Finally, these four FPCs are based in the same region, yet, located in different countries (Germany, Switzerland, France). They are embedded in different socio-economic-political settings, which offer a spectrum of potential success models; yet, they are located in the same region which allow for exchanges and learning across borders. The main features of the four FPCs are summarized in [Table 1](#).

The FPC Freiburg was officially incorporated as a non-profit organization in 2019 with initial conversations dating back to 2017 (the first FPCs were founded in Germany in 2016). The initiative emerged from civil society, namely, a group of individuals and the association *AgriKultur e.V.*, and has been supported by the City of Freiburg since 2019. The process started with a group of 9 people and later on, 20–30 people, organized in thematic Working Groups, created the structure of the FPC (finances, action, structure, mission, goals). The mission is to advance the sustainable food system in the region with emphasis on public awareness building and fostering the sustainable local food supply while increasing demand for local food. Until the incorporation in June 2019, three staff members

did administrative work, including supporting fundraising, lobbying, and establishing working processes; financed through private donations and crowdfunds. The governance structure of the FPC Freiburg currently consists of a Steering Committee (five voluntary members), an administration (three paid coordinators, one paid accountant), a Group of Spokespersons (15 voluntary representatives from all sectors of the food economy, research, civil society, municipal administration), and four thematic Working Groups (Institutional Catering; Edible City; Health & Food; Urban-Rural Partnerships and Ecology) composed of volunteers, each group having ideally a representative in the Group of Spokespersons. Additionally, each project of the FPC has a project manager as well as a mentor from the Group of Spokespersons. Varying partner organizations are involved in individual projects. The FPC Freiburg regularly organizes public events on the topics of the Working Groups to support exchange and networking among policy-makers, administrators, researchers, civil society, and food businesses. The Working Groups have launched the following projects and activities: access to fresh, regional and organic vegetables for low-income residents—*Studi-Biokiste* (since 2019); food policy exchange with local and regional politicians (annual events in 2019 and 2020); supporting sustainable institutional catering (annual events in 2019 and 2021; excursion to local producers); *Edible City (Essbare Stadt, 2019–2021; transitioned into a working group in 2022)*; Food Hub—*House of Food* (since 2018), Accessible Food Businesses—*LebensMittelPunkte* (since 2020); Cooperation and Pooling Models for Short Food Supply Chains—*KOPOS* (since 2020); the development of a regional food strategy (since 2021); Building Values for the Sustainable Food Economy—*Wertbildung im Dialog* (2020–2022). Based on the participatory budgeting processes 2019/20 and 2021/22, the City Council decided to financially support the FPC's administration with €45.000 for 2019, €45.000 for 2020, €55.000 for 2021, and €65.000 for 2022 (Stadt Freiburg, 2019; 2021). Other funding sources include federal grants (e.g., €67.900 from BMBF), donations from foundations (e.g., €56.900 from Postcode Lotterie), membership fees, and crowdfunds (Wiek and Gascón, 2021). From 2019 to 2021, average annual funds were ~€48.300 for the FPC administration and ~€54.000 for FPC projects.

The origin of the FPC Mulhouse, labeled in 2018, dates back to 2016–2017 when a coalition of a private foundation, a group of social entrepreneurs, and the metropolitan authority formed to pursue a “collective approach to provide access to healthy, local, environmentally friendly food, through equitable cooperation of all relevant actors,” operationalized in five strategic goals: develop the region's food autonomy, develop agriculture with low environmental impact (local and organic), make healthy food accessible to all, maintain and develop employment in the local food economy, and contribute to fair food supply chains. Between 2017 and 2019, the FPC Mulhouse developed its network and identified initiatives linked to the five

TABLE 1 Key features FPCs in Freiburg, Basel, Mulhouse, and Strasbourg (plans in italics).

	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
Founded in	[Initial plan in 2018] 2019	[Initial plan in 2019] 2022 (<i>projected</i>)	2017	2017
Form	NPO/Association	<i>NPO/Association (projected)</i>	In Government Agency	In Government Agency
Main structure	Steering Committee Coordination Team, Group of Spokespersons, Working Groups, Groups for Specific Projects	[not yet decided]	Steering Committee, Coordination Team, Technical Committee	Coordination Team, Partnership Committee, Inter-communal agriculture–food committee, <i>Project Management Teams (projected for Sept. 2022)</i>
Main members	City, Regional Management (Bio-Musterregion), NPOs, SMEs	Initiators: NPOs, Cooperatives, SMEs, Civil Society	Municipal Government	Municipal Government
Relation to government	Funding, partner/member	Funding and advisory role (<i>projected</i>)	Funding, regulating	Funding, regulating
Strategic goals	Policies for sustainable local food system; fair food economy (supply and value chains); vibrant food culture; increase of demand for sustainable food	Sustainable food literacy; sustainable food SMEs	Food autonomy; organic agriculture; healthy food access; employment; fair food supply chains	Healthy food; social equity; agricultural employment; local food businesses; reducing food waste
Main activity domains	Networking; raising awareness; initiating sustainable food infrastructure; initiating policy making	Networking; raising awareness	Fundraising; technical assistance; networking; raising awareness	Fundraising; technical assistance; networking; raising awareness
Annual budget	Annual budget from the city: ~€48.300 in 2021 Federal grants and other funds: ~€53.000 in 2021	€27.000 from a private foundation and the city for two series of public events in 2020 and 2021	Varying annual amount from the metropolitan authority, i.e., ~€14.200 in 2021, plus 1 part-time staff Federal and regional grants: ~€898.000 in 2021 (mostly recovery funds)	Varying annual amount from the metropolitan authority, i.e., €23.500 in 2021, plus 1 staff Federal grants: €1.3M in 2021 (recovery funds)
Programs/projects	4 thematic programs / Working Groups that initiate new projects and events 2 projects completed (e.g., public discourse on values underpinning the food system) 5 ongoing multi-year projects (e.g., development of regional food strategy)	7 public events addressing food waste, sustainable consumption, food SMEs, etc.	10 food initiatives funded (e.g., social and occupational integration through cooking) Assisting 6 food initiatives (e.g., a cooperative and participatory association on food access) Studies (organic agriculture; supply of school canteens)	2 food initiatives realized (healthy food access in low-income areas) Assisting 12 food initiatives (e.g., food hub, organic vegetable processing) 3 agricultural studies (organic agriculture, farming transfer, organic grain economy)

objectives. A “technical committee” with 15 representatives from local or regional authorities, food businesses (incl. farms), civil society organizations, and experts led the FPC and organized public events that engaged more than 200 farmers, distributors, chefs, social entrepreneurs, and citizens. In 2020, the FPC Mulhouse reformed its structure to strengthen programs and projects by appointing a new Coordination Team (two lead coordinators and five members) with specific tasks for each strategic goal. Since its inception, the FPC Mulhouse has focused its activities on supporting rather than initiating food projects through political, financial, and technical assistance. This way, it has funded 10 projects (e.g., vegetable processing factory,

food hub) and is currently involved in 6 other projects with a focus on development of food entrepreneurship. The FPC Mulhouse is mainly funded through municipal government assistance (~€42.700 for the FPC administration between 2021 and 2024) and federal grants (e.g., €56.000 from the National Food Program in 2018; ~€898.000 from the National Recovery Plan in 2021). From 2017 to 2021, average annual funds were ~€9.600 for the FPC administration, plus one part-time funded administrator (staff from metropolitan authority), and ~€62.200 for FPC projects.

The FPC Strasbourg was one of the first certified in France (2017), due to its programs on agricultural transition and

healthy food access. The FPC was institutionally embedded in the local government; thus, both programs were government-led, with limited stakeholder participation. In 2020, the FPC was restructured and a regional food strategy was drafted. Since then, the FPC Strasbourg aims to *collectively* achieve *five* strategic goals: healthy food; social equity; agricultural transition promoting employment; local food supply, processing and distribution; and reducing food waste with a circular-economy approach. The main governing body is the Food Partnership Committee composed of 25 representatives from local or regional authorities, economic development organizations, civil society organizations, food businesses (incl. farms), and experts. The regional food strategy is scheduled to be completed in 2022. The FPC Strasbourg mainly provides political and financial support to projects that are part of the social food economy. In this role, the FPC conducted two studies about organic farming and farming business transfer as well as realized two projects to increase healthy food access in disadvantaged areas. It is currently involved in 12 projects which contribute to the five strategic goals. Project management teams are currently being formed to develop new programs and projects in collaboration with food entrepreneurs. Events and campaigns to build public awareness took place in June and July 2022. The FPC Strasbourg is mainly funded through municipal government assistance and federal grants (e.g., €50,000 from the National Food Program in 2017; €1.3M from the National Recovery Plan in 2021). From 2017 to 2020, average annual funds were €20,750 for FPC projects, but there was no annual budget for the FPC administration. Since 2021, average annual funds are ~€60,200 for the FPC administration, public events, materials, etc. plus one full-time administrator (staff from metropolitan authority), and ~€381,113 for FPC projects.

The FPCs in Basel is currently in the process of being formally founded, with initial conversations dating back to 2019. The initial mission is to elicit and map interest and capacities as well as lobby and raise awareness for a sustainable food system in the region. In 2020–2021 several public events engaged a broad range of stakeholders in conversations about a sustainable food system and the formation of a FPC. The initiation group is advancing the incorporation process, while fundraising to develop its strategy and outline the activities they plan to engage in. Progress has been delayed since 2019 because of efforts to involve all stakeholders and to develop a comprehensive strategy with limited resources and being reliant on volunteers. The COVID-19 pandemic hindered broader public outreach. So far, the FPC Basel, in cooperation with other organizations, has received funding for two series of public events on actions to avoid food waste, advance sustainable consumption, support food SMEs, etc. (awareness raising and networking). These series (in 2020–2021) were funded with €27,000 by the local government and a private foundation (and administered through the cooperating organizations, not the FPC).

Research design

We adopt in this study a pragmatic version of the logic model of evaluation, differentiating among goals, processes, outputs, and outcomes (Boni et al., 2019). We differentiate between organizational/ governance processes of FPCs, which are more of a “structural/constitutional” nature, and FPCs’ activities (project, programs, events, etc.) as more “transient” processes. We separate *preparatory and supporting* outputs (networks, capacities, concepts) from *substantive* outputs (businesses/infrastructure, policies, demand). Outcomes refer to various aspects of food system sustainability.

Based on the theoretical perspectives presented above, we developed a set of evaluative criteria for application to the goals, processes, outputs, and outcomes of the four FPCs from the Upper-Rhine Region. The evaluative criteria are based on the two main normative references, i.e.,

- Food System Sustainability (e.g., FAO, 2014; Blay-Palmer et al., 2019).
- Food Democracy (e.g., Behringer and Feindt, 2019; Bornemann and Weiland, 2019a,b).

And as indicated above, to complete the evaluative framework, we have added an additional set of criteria and evaluative questions for:

- Good Governance (e.g., Bassarab et al., 2019; Sieveking, 2019; Porter et al., 2020).

We have indicated the respective normative reference [FS or FD or GG] for each of the evaluative guiding questions in Table 2 (select pool; for the full set, please see Supplementary material).

We also collected descriptive information on the four cases to allow for explanations of differences and similarities (for the detailed guiding question, see Supplementary material).

Data was collected through document reviews, meetings attendance, and semi-structured interviews with members of each FPC over the period 2019– March 2022 (Table 3).

Data was analyzed and evaluations were conducted first on the basis of the individual FPCs (within smaller research teams of the respective regional universities) and then iteratively compared, aggregated, and synthesized, with the most resilient insights extracted for presentation in this article.

Results

Outputs and outcomes-contributions to food system sustainability

Since their inception, the four FPCs have, for the most part, generated *preparatory and supporting* outputs; namely,

TABLE 2 Select guiding questions for evaluating the FPCs, as applied in this study.

Select evaluative guiding questions	Normative references
1. Goals	
a. Are the strategic long-term goals of the FPC comprehensive in terms of sustainability?	FS
b. Are the annual priorities aligned with the strategic goals and the vision of the FPC?	GG
c. Are the annual priorities/objectives achievable with the available resources?	GG
2. Processes–Organization/Governance	
a. Is the legal and organizational form of the FPC aligned with democratic principles?	FD
b. Is the governance structure of the FPC explicitly aligned with democratic principles?	FD
i. Is there a mission statement to this effect?	
ii. Are the committees sufficiently diverse (gender, age, profession, etc.)?	
iii. Are all relevant stakeholder groups sufficiently represented?	
iv. Is the governance structure functional and efficient?	
c. Are the decision-making processes aligned with democratic principles?	FD
i. Can all relevant stakeholders participate in the decision-making?	
ii. Are all relevant stakeholders involved in the decision-making?	
iii. Are appropriate mechanisms used to engage with each group of stakeholders?	
iv. Is there sufficient opportunity for (facilitated) deliberation?	
d. Is there sufficient reporting on the FPC activities (transparency, accountability)?	GG
e. Is the FPC sufficiently funded (on an annual base)?	GG
3. Processes–Activities	
a. Are the specific programs/projects aligned with the goals of the FPC (coherence)?	GG
b. Do the programs/projects have sufficient staff/resources allocated?	GG
4. Outcomes	
a. Did the FPC achieve its annual priorities (effectiveness)?	GG
b. Did the FPC make sufficient progress toward the strategic goals (effectiveness)?	GG
c. Did the FPC make sufficient progress toward food system sustainability (effectiveness)?	FS
d. Did the FPC achieve outputs/outcomes in a resourceful way (efficiency)?	GG

TABLE 3 Data collection on the FPCs in Freiburg, Basel, Mulhouse, and Strasbourg.

	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
Document Review	Strategic documents (vision, plans, goals, etc.), meeting minutes, written communications (emails), project proposals, project reports, event plans and report, press releases, monitoring and evaluation reports, media documents, scientific studies			
Observations	Advisory board meetings, Steering Committee meetings, working groups meetings, public events			
Interviews	FPC staff and volunteers, local government agencies, food businesses			

they initiated or expanded *networks* by building trust across sustainable food system stakeholders who have not been in direct contact before, raised *awareness* and built *capacity* on sustainable food issues (education), as well as administered and created *concepts, plans, proposals, and studies* related to food system sustainability. For example, since 2017, the FPC Mulhouse initiated and continues to facilitate a network of food system stakeholders, bringing together elected officials, farmers, food entrepreneurs, and professional associations in an annual meeting. The FPC Freiburg, for instance, raised awareness and

built capacity regarding the potential of institutional catering (canteens in schools, hospitals, companies, etc.) to influence food system sustainability through sourcing of local and organic food products in several public events in 2020–2021. In 2020, the initiators of the FPC Basel, for instance, organized a series of public events that raised awareness, among others, on food waste, sustainable consumption, and the role of food SMEs in the local food system. And the FPC Strasbourg, for instance, conducted a spatial study in 2021 that identified priority areas for the regional food strategy as well as key stakeholders for

TABLE 4 Preparatory and supporting outputs generated by the four FPCs.

	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
Sustainable food networks created/expanded	Informal network of institutional catering businesses and regional food suppliers	Informal network facilitated through newsletter (~100 recipients) and public events	Varying informal networks facilitated through annual events	Varying informal networks facilitated through annual events and working groups
Sustainable food awareness raised, capacity built	Public awareness of nutrition and regional food products (schools and canteens) Public awareness of values underpinning the food system Basic capacity to source local and organic products for institutional catering	Public awareness of food waste, direct marketing options, importance of food SMEs (e.g., artisan bakeries)	Public awareness of key issues related to the 5 strategic goals built through public events	Public awareness of food resilience (<i>planned for July 2022</i>)
Sustainable food concepts, plans, etc. created	Proposal for a regional food strategy Concept for a local food hub Concept for a regional network of sustainable food businesses Position paper on urban gardening Study on cooperation and pooling models in the regional food system	Public letter with consumers' ideas for sustainable food solutions submitted to the municipal authority <i>Charta to guide FPCs' activities toward a sustainable food system (in preparation)</i>	Shared vision document with strategic goals and key concepts (e.g., regional food system, responsible agriculture) Studies on organic agriculture	Diagnosis of the local food system Proposal for a regional food strategy Studies on organic agriculture

TABLE 5 Substantive outputs generated or assisted by the four FPCs.

	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
Sustainable food businesses and infrastructure created or converted	Zero-waste store adopted distribution of produce and food products from local farms	[None]	3 integration-oriented food businesses 40+ jobs created: <i>Saint-André Farm; Légumerie Terra Alter Est</i> (local and organic vegetable processing) <i>Solidarity coffee shop, community garden (under development)</i>	An estimated 64 integration-oriented jobs created in the food economy with: <i>CSA Montagne verte; Emmäus Mundolsheim</i> 12 food businesses of the social and solidarity economy (<i>under development</i>)
Sustainable food policies passed	Climate protection program includes FPC	[None]	The FPC's five strategic goals included in the metropolitan climate plan	Policies on healthy food in school canteen; ensuring equitable access to healthy food; creating quality employment in agricultural production; reducing food waste; etc.
Sustainable food consumption increased	Discounted organic vegetable box for low-income residents	Consumers reduced food waste following a public event	Increased food distribution points (77 in 2021) and access to local fruit and vegetable box (1900 boxes per week)	Increased distribution points to local fruit and vegetable box (89 in 2021, involving 20 farms) Solidarity basket (<i>PRECROSS</i>)

the implementation. Table 4 summarizes these preparatory and supporting outputs of the four FPCs.

Fewer *substantive* outputs were generated or assisted in being generated (Table 5); yet, some sustainable food businesses and infrastructures were created or converted, sustainable food policies were passed, and sustainable food consumption demand was increased—yet, quite differently

in the four FPCs. For example, the FPC Mulhouse created the *Saint-André Farm*, a farmers collective (on common land) in Cernay that practices sustainable agriculture. The FPC Strasbourg, for example, was instrumental in passing a sustainable food policy to pursue food resilience in the region, endorsed by signing the Milan Urban Food Policy Pact. The FPC Freiburg, for instance, increased sustainable

TABLE 6 The four FPCs' contributions to food system sustainability (FS) (Outcomes); project titles are indicated in Italics.

	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
Env 1–Organic and environmental practices (e.g., biodiversity, animal health)	Sustainable urban agriculture (<i>Essbare Stadt</i> –projected)	[None]	No outcomes yet, but current initiative on conversion to organic agriculture	23 farming leases with environmental easements (biodiversity, conservation of water and soil resources) for 132,5 ha (realized–2020)
Env 2–Renewable energy, energy efficiency, offsetting GHG emissions	Reducing food miles through regional logistics (<i>HoF</i> –projected; <i>KOPOS</i> –projected)	[None]	[None]	[None]
Env 3–Circular material (food and packaging) flows (compost, reusing, recycling)	[None]	[None]	[None]	Reusing and processing class-B food (<i>Boomerang</i> , <i>Uzage</i> ; <i>Les Retoqués</i>)
Soc 1–Access to fresh food and healthy eating habits	Canteens in schools, etc. (partly realized) Organic vegetable boxes for low-income residents (realized) Access to healthy food in urban and rural areas through pooled food SMEs (<i>HoF</i> –projected; <i>Lebensmittelpunkte</i> –projected)	[None]	Community garden (<i>Jardin de la Garance</i>) Two farm shops Urban farm (<i>Illzach</i>)	Solidarity baskets (<i>PRECROSS</i> –realized) Community garden with nutrition classes in disadvantaged area (<i>IREPS</i> –projected)
Soc 2–Participation in sustainable food system development (governance)	Participation in regional food strategy (projected) Participation in city's Sustainability Council Participation in urban agriculture planning (<i>Essbare Stadt</i> –realized)	Close discussion with the city around food strategy (projected)	Public food event with 200 people (realized, October 2021)	Citizen hearings (projected) Public event with special activities for youth (projected, June 2022)
Soc 3–Support of the sustainable food economy (e.g., consumption)	Raising awareness on the importance of sustainable food consumption (<i>Werbildung im Dialog</i> –partly realized) Organic vegetable boxes for low-income residents (realized)	Raising awareness on sustainable food consumption and reduction of food waste	Increased local food consumption (new distribution points for local fruits and vegetable box–realized)	Increased local food consumption (<i>CSA Montagne verte</i> –realized; <i>Manufacture-Lab</i> –realized)
Econ 1–Sustainable businesses and/or jobs in sustainable food businesses	Creating accessible food businesses in rural areas (<i>LebensMittelPunkte</i> –projected)	[None]	Integration- oriented food businesses and jobs created (<i>EPICES</i> ; <i>Saint-André Farm</i> ; <i>Légumerie Terra Alter Est</i>)	Integration- oriented food jobs created (<i>CSA Montagne verte</i> –realized; <i>Emmäus Mundolsheim</i> –realized; <i>Solibio</i> –projected)
Econ 2–Resilience of the sustainable food economy (e.g., closing gaps, cooperation)	Closing gaps in regional food supply chains and access in rural areas (<i>KOPOS</i> –projected; <i>HoF</i> –projected; <i>LebensMittelPunkte</i> –projected) Initiating cooperations between canteens and regional producers	[None]	Local currency (<i>La Cigogne</i> –realized)	Public procurement infrastructure for school catering (projected)
Econ 3–Sustainable entrepreneurial support (e.g., social financing, training)	Support for cooperation and pooling (<i>KOPOS</i> pilot projects–2021-22, model project in 2023) Support for food organizations (<i>HoF</i> –projected)	[None]	Social financing for food businesses (realized) “ <i>Boost</i> ” event for 12 food projects (realized) New infrastructure “ <i>Marmite à Projets</i> ” for technical support of food businesses	Social financing for food businesses of the social and solidarity economy

food consumption through discounted organic vegetable boxes for low-income residents (in cooperation with a local organic farm). In Basel, consumers changed their consumption behavior (e.g., reducing food waste) following a public event organized by the FPC. Overall, the FPC Mulhouse, unlike the three other FPCs, has accomplished quite some substantive outputs in supporting the development of new sustainable food businesses. To further advance these efforts, the FPC Mulhouse created a new infrastructure to effectively and efficiently provide technical support (coaching, training, financing options, etc.) to sustainable food business start-ups in 2021. Similarly, the FPC Strasbourg has made progress on passing policies intended to advance sustainability in the local food system.

Regarding the *outcomes* in terms of *food system sustainability*, all four FPCs have made contributions to almost all aspects (nine criteria) (Table 6). However, as most contributions have been preparatory and supporting, most outcomes are either projected or so small that none of the FPCs can claim to have positively influenced sustainability on the level of the *food system*. For example, the FPC Freiburg runs a number of projects that intend to contribute to the economic resilience of the sustainable food economy, e.g., through building out the regional logistics (KOPOS) and the cooperation among sustainable food businesses (*LebensMittelPunkte*). However, these projects have limited means, and usually only small budgets for actual investments and implementation (KOPOS-small to medium-sized pilot projects, including a €100K model project in 2023). The funding situation is quite different for some of the other FPCs, for instance, the FPC Strasbourg had a project budget of more than €1.3M in 2021; sustainability outcomes on the *food system* level have not been yielded yet, mostly due to limited spending period (just received funds in 2021).

Processes—democratic processes and good governance

The findings regarding the alignment of the FPCs' processes and practices with principles of food democracy and good governance are summarized in Table 7.

Alignment with principles of food democracy representation

While the four FPCs aim to achieve balanced representation of all relevant actors of the food system, there are some issues of under-/over-representation. All four FPCs have steering committees or other executive units that include stakeholder from across the food system and its supporting organizations (such as researchers); with the exception of some relevant economic and social actor groups though. First,

while all four FPCs involve representatives from (sustainability-oriented) food SMEs, there is little to no representation of large/conventional farms or food businesses. While this contradicts the FPCs' commitment to include "all relevant stakeholders across the food system," it is often justified referring to the ambitious environmental and social goals the FPCs pursue (and large/conventional farms or food businesses don't). Yet, there are some nuances. For instance, the FPC Strasbourg only includes actors from the social/solidarity economy and excludes large/conventional farms and farmers' unions to avoid an "unfriendly takeover" of the FPC from a dominant actor group in the current food system. Yet, the involvement of representatives from the civil society organization "Bio Grand Est" and the economic development organization "Chamber of Agriculture" is an attempt to include voices from both organic and conventional (local) agriculture. The development of the FPC Basel relies on initiators from the alternative food system volunteering their time and expertise; so far, no attempt was made to proactively involve farmers and food businesses from the conventional food system. Second, while all four FPCs have representation of civil-society organizations and/or municipalities in pursuit of social goals, representatives of non-profit organizations for marginalized populations like vulnerable populations from low-income or immigrant communities are not present in the governing bodies. There is a general tendency in the FPCs from Mulhouse and Strasbourg to have representation from interest groups rather than the stakeholders themselves (e.g., low-income residents, farmers, social entrepreneurs). In Strasbourg, however, three working groups to implement new programs are being formed for fall 2022 and intend to include stakeholders directly. While there are these common cases of under-representation, there are also some cases of over-representation (and influence). Local authorities are over-represented in the governing boards of the FPCs Mulhouse, and while the metropolitan authority might not be overrepresented in the FPC Strasbourg, it has a major representational influence because it selects the members of the steering committee ("Partnership Committee") without broad (democratic) consultation and involvement.

All four FPCs have either a balanced binary (w/m) gender distribution, or there are more women involved in the governing bodies than men (unlike in many other food/ agriculture organizations and businesses). This is unintentionally occurring as none of the FPCs has a formal requirement on gender balance. Data is missing on other relevant issues of socio-demographic representativeness, including age groups, nationality/cultural background, gender identity and sexual orientation.

There are some critical issues to note regarding the selection process of the governing bodies' members. The FPCs Mulhouse and Strasbourg do not have a broad democratic process of electing members to the governing boards by general vote. The FPC Freiburg does so through all members every other year (incl. nominations) and the FPC Basel aspires to do so as well

when founded. The FPC Mulhouse only allows members of the Technical Committee to nominate new members. This co-option process remains biased toward representatives from the metropolitan authority. None of the FPCs attempts to involve the broader public into the governing bodies' election processes (e.g., through participatory information technology used in North America, for example).

Participation

The four FPCs mostly use *representational*-democratic processes for their decision-making, as this is mostly conducted through the governing bodies (reflecting the critical issues outlined in the previous section). For example, the steering committee ("Partnership Committee") of the FPC Strasbourg takes the strategic decisions, which are then approved by representatives of the city and metropolitan. Citizens and food professionals share their voice during the annual event and occasional hearings, but are not directly involved in decision making. However, there are some attempts to also adopt *direct*-democratic processes through open membership and approval through the members (FPC Freiburg) or even the broader public of the respective city-region. The FPC Mulhouse has made several attempts to involve a broad spectrum of food professionals (consultations with ~100 people in 2017) and the public (consultations with ~200 people in 2018) in strategic goal settings. The latter event, however, was considered of limited relevance for food professionals; thus, the FPC Mulhouse decided to focus on the direct participation of food professionals only, not the general public anymore. The FPC Freiburg offers a different model for direct participation, by opening the actual thematic and project work of the FPC (incl. project-related decision making) to anyone with serious interest and commitment (and expertise).

Apart from the indicated limitations of direct-democratic involvement, it is important to note that mostly, or even exclusively, people with higher educational qualifications and fluent (language) communication skills participate in the four FPCs' activities and public events. As stated above, for democratic participation it is *not* enough to invite broadly and then pretend that those who are present sufficiently represent the full spectrum of stakeholders. Of central importance here are also the availability and accessibility (language, knowledge) of information, resources, and time. The evaluation identified rather standard methods of public outreach and event promotion with the result of rarely reaching beyond the "usual suspects."

Deliberation

Direct observations of FPCs' meetings of governing bodies, project activities, and public events suggest that the four FPCs attempt to facilitate deliberation and agreement-oriented decision making across their efforts, which is a robust proxy for equal say. Conversations are facilitated among different

voices, which are invited, heard, and documented. And efforts are made to use rational and facts-/arguments-based modes of communication. Some of the chartas/mission statements include aspirations toward non-violent communication and rules for constructive conversations. Considering the two previous aspects (representation and participation) suggests that the FPCs offer high deliberative quality, yet, for a limited group of stakeholders.

However, the evaluators have also observed several incidences of insufficient facilitation that allowed for (self-)interest-oriented bargaining and individual voices dominating the conversation. For instance, in conversations within the FPC Mulhouse's governing bodies, diverging perspectives on key concepts such as "regional" (delimitation) and "responsible agriculture" (exclusively organic or not) were not tolerated, at times. One member representing local but non-organic farmers did not dare to express his/her/their views because of a dogmatic focus on organic agriculture. In addition, the reception of reliable (scientific) information on sustainable food system issues, in general and specific to the respective city-region, varies among and within the FPCs. Similarly, there is a lack of robust procedural knowledge and skills, e.g., how to elicit public feedback, or how to develop a regional food strategy, which negatively affects the quality of the decision-making processes and the participation in those. For example, the FPC Freiburg struggles to fully professionalize the development of the regional food strategy using robust and tested procedures and methods, despite good efforts and some accomplishments. Similarly, while the FPC Mulhouse attempted to include a broad spectrum of voices into strategic goal setting, it remains unclear how the multitude of elicited goals was synthesized into the small final set.

Bindingness

The FPCs Mulhouse and Strasbourg score quite highly on the fourth democratic principle, while the two others are still in a stage of aspiration. In the former cases, strategic decisions by the FPCs are directly included in the metropolitan authorities' policies. This is secured through the general (representational) democratic legitimacy of the FPCs, including the approval process of all FPCs' decisions by one or more representatives of the metropolitan authority.

Alignment with good governance principles

Coherence

There is a lack of coherence in the FPC Strasbourg's annual priorities, which are mostly focused on advancing the FPC's governance structure and processes, e.g., citizen involvement, which leaves gaps in the alignment with the strategic goals. However, this is related to the current restructuring phase of this FPC. Most of FPC Freiburg's annual priorities (2022) are centered on governance structure and processes, too; and only

TABLE 7 Alignment with food democracy (FD) and good governance (GG) criteria in the four FPCs (plans are indicated in italics).

Principles	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
FD1–Representation (e.g., broad membership in FPCs governing bodies; nomination and selection processes)	Spokespersons from agriculture (6), processing and trade (3), gastronomy (2), research (1), civil society (2) municipal administration (1-2)	Initiators' group composed of citizens, NPOs, SMEs, and research organizations	Technical committee: ~15 members representing local authorities (6), regional (1), food business (1), farms (1), civil society organization (supporting farmers) (2), development organizations (1), research organizations (2), other experts (2)	Representation within the Partnership Committee of local authorities (2) and institutional partners (7), civic society organizations (3), economic development organizations (6), research organizations (1)
	Balanced (binary) gender distribution (50/50)	Currently more women than men	75% women, 25% men	66% men, 33% women
	Does not cover entire value chain	No conventional/large farms or food businesses represented	Steering Committee composed of representatives from the metropolitan authority (4 until 08/2020; 14 since 09/2021)	Coordination Team composed of one member of the metropolitan authority in coordination with other units and elected representative of the city and metropolitan authority
	Under-representation of research/educational institutions, local government, economic development organizations (e.g., Industry and Commerce Chamber)	<i>Steering Committee will get elected during the annual general assembly (draft statutes)</i>	Balanced (binary) gender distribution 50/50	66% women, 33% men
FD2–Participation (e.g., broad involvement of members in decisions and activities; openness and actual opportunities to participate)	No conventional/large farms or food businesses represented		Over-representation of the metropolitan authority (e.g., 5 to 6 within the technical committee)	No conventional/large farms or food businesses represented
	Spokespersons are elected by all members (who may also nominate spokespersons in advance) every 2 years at the general assembly of the association		No conventional/large farms or food businesses represented	Selection of members to the partnership committee by the coordinator from the metropolitan authority (no formal/democratic process for nomination and selection)
			Cooptation of members to the Technical Committee without formal/democratic process for nomination and selection	
	Group of Spokespersons takes strategic decisions and approves projects	Initiators' group takes strategic decisions	Technical Committee takes decisions on strategic goals, annual priorities, key programs	Partnership Committee takes strategic decisions since 2021 (by local government 2017-2020)
	Steering Committee is in charge of legal representation, bookkeeping oversight, staffing, and other formal matters	No public participation in strategic decisions so far; <i>for developing the charta, broader public participation envisioned</i>	Steering Committee takes decisions on strategic orientation and funding	Coordination Team takes operational decisions

(Continued)

TABLE 7 (Continued)

Principles	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
	FPC admin office takes operational decisions	Broad public participation in public events (raising awareness)	Food professionals participate in goal setting (vision, strategic goals, charter, etc.)	Representatives of the city and metropolitan authority approve strategic decisions
	All FPC members (plenary) are invited to participate in goal setting (annual priorities)		Limited participation of citizens (a few events) and no direct involvement in decisions	Citizens and food professionals share their voice during the annual event and occasional hearings, but no involvement in decisions
	Citizens can participate in projects and Working Groups on a voluntary base		Public events open to all food actors, but so far limited participation of alternative farmers and food distributors	Food system stakeholders contribute to public events (organization, presentation) and <i>will be included in new programs (forthcoming)</i>
	Participation opportunities mainly for people with higher educational qualification and communication skills in German			Public events planned for 2022
FD3—Deliberation (e.g., equal opportunities of all voices; argumentative communication mode)	Consent-oriented decision making with iterative exchanges between Working Groups (proposals), FPC Office (preparation, evaluation of feasibility) and the Spokespersons (decision)	Consent-oriented decision making without professional facilitation; due to lack of time and other resources, decisions taken based on no objection without comprehensive deliberation among all members, at times	Consent-oriented decision making with iterative exchanges between governing bodies (proposal → elaboration → approval)	Consent-oriented decision making within the food partnership committee (collective reviews)
	Some challenges in professional facilitation and unbiased/ evidence-oriented deliberation		Lack of transparency on part of the Technical Committee (toward food actors) about the procedure for processing feedback and arriving at final decisions	Some challenges in professional facilitation and unbiased/ evidence-oriented deliberation
FD4—Bindingness (e.g., effective link to formalized policy-making)	Not yet, but FPC strives to get involved in political decisions relevant to the local food system	[N/A]	Each strategic decision (e.g., food strategy, priorities) is included in the metropolitan authority policy through the climate plan	Each strategic decision (e.g., food strategy, priorities) is included in the city <i>and</i> metropolitan authority policies

(Continued)

TABLE 7 (Continued)

Principles	FPC Freiburg	FPC Basel	FPC Mulhouse	FPC Strasbourg
GG1–Coherence (e.g., aligning goals, action plans, actions, funds)	Annual priorities (2022) derived from strategic goals and vision, but mostly focused on governance structures and processes	[N/A]	Action domains aligned with strategic goals, but lack of specifying annual priorities	Clear definition of annual priorities (2022) and strong alignment with actions (e.g. Event of June 2022 to include citizens), but mostly focused on governance structures and organizing the collective action
	Each project is linked to at least one strategic goal Insufficient links between priorities and action plans (underdeveloped)		Funding of projects in line with strategic goals	Funding of projects in line with strategic goals
GG2–Transparency (e.g., regularly reporting)	Evaluations are carried out annually in June and October Annual report (with budget) for members and financing bodies	Public events and results documented on webpage <i>Annual report with budget is planned to be presented to and approved by the general assembly (planned)</i>	Regular reporting of Coordination Team to Technical Committee Annual reporting to food actors and politicians	Regular reporting to city and metropolitan authority by Coordination Team <i>Reporting procedures for the partnership committee are expected for Sept. 2022</i>
	<i>Annual public report with budget is planned.</i> Steering Committee obligated to submit annual financial statement, economic plan, etc. to the members' meeting (Statutes)	[N/A]	No public annual report (with budget) Each member of the FPC is obliged to comply with vision / strategic goals (Charter); yet, no de-facto accountability as there is no compliance monitoring	<i>Annual public report with budget is planned.</i> [None]
GG3–Accountability (e.g., sanctions for violating agreements)	Annual budget line (government)	[N/A]	Annual budget line (government) and staff position	Annual budget line (government) and staff position
	Co-funding through donations All projects depend on external funds Dependent on volunteers		Lack of resources for the Coordination Team (mainly volunteers)	Future project management teams will rely on volunteers
GG4–Feasibility (e.g., sufficient funding for running a (lean) FPC administration),	High effectiveness on internal priorities (90% achieved in 2021); yet, low effectiveness regarding substantive outputs and system-level sustainability outcomes	[N/A]	Initially good level of effectiveness with substantive outputs (no system-level outcomes though) Currently low effectiveness (only one project since 2020) due to high turnover of the members	High effectiveness on internal priorities and preliminary strategic goals (2017-20) Limited effectiveness toward food system sustainability

the minority pertains to more substantive (external) objectives such as the agricultural transition, rebuilding supply structures, and raising awareness—which are the core strategic goals. Also, links between priorities and action plans remain for most FPCs vague, as action plans are largely underdeveloped (lack clear descriptions of actions, people in charge, collaborating partners, assets, resources, potential obstacles, etc.).

Transparency

Despite regular internal reporting and publicly accessible newsletters and open meeting minutes (in some cases), none of the four FPCs publishes a *public* annual report (with financial statements and budgets). Although the majority of funds come from public (governmental) sources, it is difficult for the public to obtain transparent financial information about the FPCs. In addition, while the FPC in Freiburg and the FPC in Strasbourg have clearly defined annual priorities and set up more recently new procedures, the ones of the FPC Mulhouse are ambiguous and the FPC Basel does not have any yet. In some cases, annual priorities are not formalized to the extent that outputs and outcomes can be checked against them (see effectiveness). FPC's activities and outputs now need to be documented and shared with a broader audience (yet, not the general public).

Accountability

The Steering Committee of the FPC Freiburg is legally *obligated* to submit annual financial statements, economic plans, etc. to the annual members' meeting (with legal repercussions if not). No accountability mechanisms are in place for the FPC Strasbourg. For the FPC Mulhouse, accountability is more symbolic than effective. From 2021, each FPC member signing the charter is supposedly obliged to comply with the collective vision and strategic goals. Yet, there is no formal procedure to monitor and enforce compliance with the charter.

Feasibility

All three fully operational FPCs (Freiburg, Mulhouse, Strasbourg) have an annual budget line (government funding) and in two cases even (governmental) staff positions at their disposal. For the FPC Freiburg, the working time of half of the Spokespersons is paid by their employers (in-kind). However, considering the ambitious aspirations and the urgent need for large-scale transformation of the food system toward sustainability, it seems fair to assess that all FPCs are still under-budgeted and under-staffed. To varying extents, they continue to depend on fluctuating donations, grants and volunteers, which represents a risk to being functional and effective (see below).

Action-effectiveness

The FPCs' effectiveness is generally high regarding internal priorities and preliminary strategic goals; with the caveat that a lack of operationalization makes it difficult to reliably appraise effectiveness (and efficiency). Effectiveness in terms of achieving substantive outputs varies and system-level

sustainability outcomes have not been achieved (as mentioned above). However, some of the FPCs have recognized the lack of effectiveness in this regard and are in the process of changing their strategies and tactics to achieve positive system-level changes. For example, the FPC Strasbourg has undertaken significant governance restructuring to be able to create larger alliances and device programs with system-wide reach. And the FPC Freiburg has strengthened its partnerships, e.g., with Badischer Landwirtschaftlicher Hauptverband e.V. (farmers' association), city council members (Freiburg), majors (municipalities in the region), as well as with the Regionalwert AG (citizen-based social financing organization). At the same time, effectiveness of the FPC Mulhouse, while strong in the first years, has plummeted recently with only one project developed since 2020. Reasons for this situation include high turnover of members in the governing boards as well as compartmentalized actions instead of realizing synergies across actor groups with different, yet complementary objectives.

Linking processes to outputs and outcomes

Exploring the links from democratic processes to outputs and sustainable outcomes (and back), a number of patterns emerge across the four FPCs. Instead of simple causal links, there are changing influences from processes to outputs and back to processes (and so forth). *Ad-hoc* processes have eventually led to preparatory outputs such as strategic goals and governance guidelines (Table 4), which were applied in subsequent processes to create the next set of preparatory or even substantive outputs (Table 5).

First, adhering to principles of food democracy and good governance yields well-rounded and vetted outputs but requires significant time and resources. The slow incubation process of the FPC Basel illustrates the lack of outputs and outcomes due to a quest for broad participation and building trust among food system actors (cf. FPC Freiburg). The FPC Strasbourg, on the contrary, started with quick wins (substantive outputs and outcomes), but later reconfigured to increase their impact at the system level (cf. 6.2.2), and currently focuses on preparatory outputs to ensure a sound (direct) democratic process. The jury is still out which of these dynamics between processes and outputs/outcomes will be more effective in achieving sustainable outcomes on the food system scale.

Second, despite the slowdown in achieving substantive outputs, implementing sound participation itself yields sustainable outcomes, in some cases (#2 social outcome, Table 6). Yet, participation varies among the four FPCs (cf. 6.2.1) and the lack of representation of citizens (e.g., the FPC Mulhouse), particularly those with lower educational attainment and from disadvantaged neighborhoods, calls these

outcomes into question. Furthermore, the lack of participation of economic actors, and notably, large/conventional food businesses, might reduce the FPCs' capacities to contribute to the three economic goals of food system sustainability (cf. Table 6).

Third, there seem to be limitations of the democratic process regarding the acquisition of potent (human) resources. By relying on democratic principles like openness and inclusion (e.g., the FPC Freiburg), volunteers constitute the major asset of the four FPCs in the beginning. Yet, most volunteers lack the necessary expertise and experience to facilitate effective and efficient task completion. To address this issue, the FPC Mulhouse recruited experts in regional development in 2020–2021. This restructured the FPC's decision-making process and limited public participation; yet, it accelerated progress toward outputs/outcomes. While it required funds for recruitment, the hired professionals also helped to acquire more (governmental) funds.

The aforementioned interrelations between processes and outputs/outcomes are more illustrative than comprehensive but highlight the demanding task of pursuing food system sustainability through democratic processes—and the specific solutions the four FPCs have devised for doing so.

Discussion

This study compares the key features of four FPCs in the Upper-Rhine Region, namely, the city-regions of Freiburg, Basel, Mulhouse, and Strasbourg, with focus on the different paths to pursue sustainable food system outcomes and thereby adopt democratic and good-governance principles. While the literature identifies FPCs as key initiatives in the transformation toward sustainable and democratic food systems (Prové et al., 2019), there are specific challenges that FPCs need to navigate in these endeavors—which we discuss in this section.

Key challenges of FPCs to contribute to sustainable food system transformations

The four FPCs mostly generated preparatory/supporting outputs and less substantive ones. They have undertaken significant efforts developing networks, initiating new forms of cooperation and governance, raising awareness for food democracy, agreeing upon strategic goals, developing plans, etc. While it receives little attention in the literature (cf. Mooney, 2022), we found the navigation between preparatory/supportive vs. substantive outputs to be a key challenge for FPCs. Substantive outputs yield benefits in terms of early-wins and increased visibility, which can be leveraged for fundraising and public campaigns; however, without sufficient, yet, often tedious preparatory/supporting efforts such as the development of a

robust regional food strategies and a functional stakeholder network, more significant substantive outputs (and sustainable outcomes) will not be achievable at later stages. The FPC Strasbourg offers an interesting example. It started early generating substantive outputs (e.g., facilitating agricultural leases with environmental easements and providing access to healthy food for low-income families). Yet, the lack of preparatory/supporting efforts limited the impact, which eventually led to a re-start with focus on developing a regional food strategy and establishing more potent collective governance structure and processes. While most of FPC in the U.S are underfunded (Bassarab et al., 2019), securing investments and funds is a key success factor for FPCs' ability to generate substantive outputs, incl. policy changes (Scherb et al., 2012). Yet, securing funds often requires significant preparatory/supporting efforts and outputs, incl. proposals, and resilience in coping with rejection. There is also the related challenge of navigating between one-off and more permanent fundraising efforts. For example, both FPCs Mulhouse and Strasbourg were able to secure significant funds through the provisional National Recovery Plan (COVID-19) in 2021. However, in pursuit of this opportunity, less efforts went into securing permanent government funding for these FPCs. The latter has been the successfully implemented strategy of the FPC Freiburg, which allows for more consistent action and completion of programs.

Getting to the core of the first research question, to what extent FPCs contribute to sustainable food system transformations, our review confirms the alignment between the FPCs' strategic domains and sustainability objectives (cf. Calancie et al., 2018), but it also indicates that the FPCs' achievement of sustainable outcomes on the food system level remain marginal so far. While all four FPCs are still at a nascent stage (less than 5 years in operation), it seems natural that they still struggle with yielding substantive outputs and sustainable outcomes (as well as fully aligning with the principles of (direct) food democracy—see below). Yet, the daunting challenges of sustainability associated with the current food systems, including climate change and major social inequalities from the global to the local level, require fast(er) responses. This points to another tension that FPCs are challenged to navigate, namely collaboration with (large) food businesses and investors. While there is much talk about the challenge of including (or not) large conventional farms and food businesses into FPCs, it often passes unnoticed that FPCs neglect some potential allies (Mooney, 2022) and the ongoing major movement toward “democratizing the (food) economy” (Bijman et al., 2016) through cooperative businesses, benefit corporations, social enterprises, etc. While there is so much momentum regarding food democracy and democratizing the food system, there is a missing or at least underutilized link to democratizing the food economy. Despite some initial efforts toward social entrepreneurship (e.g., in the FPC Freiburg and

the FPC Strasbourg), this seems to be a major underutilized opportunity for FPCs to navigate the aforementioned challenge and engage in sustainable economic development.

Finally, the challenges of achieving substantive outputs and sustainable outcomes are also linked to some deficits in good governance, including good/professional practices, confirming the findings of other FPC studies (Harper et al., 2009; Gupta et al., 2018). Despite the development of functional coordination teams and administrative offices, FPCs seem to often lack the resources and expertise to develop and implement robust action plans with clear goals, specific actions, responsibilities, assets, resources, potential obstacles, etc. The involvement of an expert in regional development in the FPC Mulhouse (in 2020–2021) points to the potential of professionalizing FPC activities. As professionalization of FPCs might come with repercussions that undermine democratic principles and transformational aspirations (Mooney, 2022), this constitutes another navigation challenge for FPCs. In the same direction alludes the finding that none of the four FPCs adopted a sufficient scheme to monitor and evaluate outputs and outcomes (in relation to the resources allocated and cost-efficiency), which leaves effectiveness claims vague and unsupported, but more importantly, undermines adjustments of actions and effectiveness increases through strategic changes. This lack of measurement of progress is all the more important because most FPCs are based on a large majority of volunteers. As members are free to leave as much as they are free to join, the lack of demonstrated progress can generate a loss of motivation, as it was observed in the case of the FPC Mulhouse in 2019–2020. It also constitutes a major barrier to accessing impact-oriented funding agencies and individuals such as institutional or private impact investors.

Key challenges of FPCs in adopting food democracy and good governance principles

As food democracy allows people to *directly* influence and improve the existing food system (Booth and Coveney, 2015), FPCs are seen as key mechanisms for people's active participation (Welsh and MacRae, 1998; Hassanein, 2003) if aligned with democratic principles, which often remain insufficiently operationalized in the discourse on food democracy (Lang, 2005; Renting et al., 2012; Petetin, 2016). Previous studies highlight openness and inclusiveness as key democratic principles of FPCs (Carlson and Chappell, 2015; Sieveking, 2019). Yet, representation, participation, deliberation, and bindingness remain key issues of establishing (direct) democratic FPCs (Sieveking, 2019). The comparison of the four FPCs sheds light on key challenges to align with these democratic principles, as well as with principles of good governance.

Regarding the principle of *representation*, FPCs are defined as collaborative coalitions of stakeholders from across the food system, i.e., food businesses, governmental agencies, civil society organizations, universities, consumers (Carlson and Chappell, 2015; Halliday et al., 2019; Santo, 2019). While representation is a critical democratic principle, widely studied within traditional governance modes (Koski et al., 2018), there is a gap of empirical evidence to what extent sufficient representation is achieved in FPCs. Our findings indicate that the four FPCs all *aim at* achieving good representation; yet, struggle with actually achieving it—not by accident but because of deep-seated challenges. The described issues of over- and under-representation of specific stakeholder groups, on the one hand, reflects conflicting ideological/political agendas (e.g., types of agriculture, government intervention), and on the other hand, perpetuates structural injustices against commonly under-represented groups (e.g., less educated, working poor, immigrants, etc.). This constitutes a major challenge of balancing various interests in order to comply with this principle. For example, if FPCs do not (sufficiently) involve large/conventional food businesses, there is limited reach into the current food system and its conversion; yet, if FPCs do so, they run the risk of getting their transformational aspirations diluted or undermined because these corporations are benefitting from the status quo, and thus, in most cases, strive to preserve it (Allen et al., 2003; Hassanein, 2003; Michel, 2020). While this is a legitimate fear, excluding such players from the FPCs contradicts the democratic principle of broad representation and potentially limits the overall impact to niche developments. Our findings suggest two ways to cope with this “balancing” challenge. First, following the FPC Strasbourg's focus on food businesses from the social economy, FPCs have sought representation of large sustainability-oriented food businesses, e.g., *Taifun Tofu* in Freiburg or *Biocoop* in Mulhouse and Strasbourg. Second, by reinforcing transparency and accountability (Sieveking, 2019), conventional food businesses would need to comply with the FPC's mission (cf. FPC Mulhouse). Similarly, if FPCs have strong representation of government agencies, funding (incl. staff positions) is secured and decisions are (politically) binding, as seen in the case of the FPCs Mulhouse and Strasbourg; yet, if FPCs do so, they run the risk of getting their transformational goals reduced to politics-as-usual. Finally, in line with Koski et al. (2018), we argue that sufficient representation does not imply compliance with participation and deliberation principles, discussed below.

Regarding the principle of *participation*, this study confirms the challenge of balancing broad public participation in FPCs' decision making, while not overly slowing down action (as seen in the case of the FPC Mulhouse). There are various approaches to participation (Rowe and Frewer, 2000) and the challenge is to balance direct and indirect/representational modes in iterative procedures. Not everyone needs to be part of each round of

discussions involved in complex decision-making processes, depending on the specific objectives (Hassanein, 2008). Yet, this does *not* mean to opportunistically exclude actors like farmers or disadvantaged populations because of limited time and capacities to contribute (Sieveking, 2019). It means to offer them *appropriate* opportunities. Adopting the good-governance practice of high transparency and some reasonable veto-options help legitimize such combined approaches. Explicit capacity building and pilot projects (with accompanying research) can help advance adherence to the principle of participation. In Strasbourg, the municipal administration has used novel participatory approaches (participatory budget, climate plan, 2018–2020), which have not been applied for the food systems immediately. So, advanced approaches in one political arena do not automatically translate into others; but they allow for inter- and trans-departmental exchanges that might lead to their adoption by the FPC.

Regarding the principle of *bindingness*, our findings contribute to the debate about government involvement in FPCs (cf. Money, 2022). The four FPCs illustrate the difference between FPCs being set up by civil society organizations where government agencies may (FPC Freiburg) or may not participate (FPC Basel) vs. FPCs being formally set up by governmental agencies (FPCs Mulhouse and Strasbourg) (Prové et al., 2019). The increasing number of FPCs governed by local governments (Prové et al., 2019) feeds the debate if FPCs are better off embedding themselves within the government or operating outside (Gupta et al., 2018). Autonomy diffuses pressure on aligning with government missions and offers more flexibility to respond to community concerns. The recent development of the FPC Strasbourg confirms such pressure to align with the new political mission of the metropolitan authority (and its climate plan). Yet, the direct involvement of local governments also provides a higher degree of legitimacy (Gupta et al., 2018) and a clear pathway to policy changes. In Basel (without the involvement of the FPC), a new policy enabled a public-private partnership channeled several million Swiss Francs into starting-up sustainable food SMEs. Finally, pressure might work both ways, that means, from the FPC to the government missions, too. For example, the metropolitan authority of Mulhouse, for instance, has reinforced its budget and mission toward agroecology since its partnership with the FPC. However, as such embeddedness generates strong dependency (Gupta et al., 2018; Mooney, 2022), it also requires more transparency and accountability (e.g., budget, allocated staff, members). Unlike in the case of the FPC Freiburg, there is neither *transparency* on the annual budget nor *accountability* on follow-through in the FPCs Mulhouse and Strasbourg. This lack of transparency and accountability allows, to some extent, a process of control by the local government that conflicts with democratic governance.

Our study highlights the importance of good governance principles like feasibility, transparency, and accountability to facilitate democratic processes based on representation,

participation, deliberation, and bindingness. Transparency and accountability appear to be essential for achieving sufficient representation and participation, and they are essential for ensuring that bindingness through government links does not compromise other democratic principles.

Conclusions

While FPCs at an early stage of development seem to be most effective in generating preparatory and supportive outputs such as networks, capacities, and concepts, there are possibilities for FPCs to yield more substantive outputs such as businesses/infrastructure, policies, and consumer demand, and with the latter, sustainability outcomes. Critical success factors for a timely path to impact are that FPCs adopt an entrepreneurial mindset, connect to key stakeholders in the sustainable food economy, reach a sufficient level of professionalism, and successfully fundraise significant amounts of expendable investments. All these success factors seem to be somewhat at odds with the more civic and deliberative orientation of most FPCs, even being quite hesitant to move from concepts/plans and awareness raising to actions, in particular when it comes to professional and economic development activities. At the same time, FPCs struggle with their core aspiration, namely, to fully adhere to principles of (direct) democracy and good governance. Instead of drawing a rigid line between sound and insufficient practices, our study points to the need to cope with a set of “balancing” challenges, namely, involving large/conventional food businesses, while avoiding “mission slides,” involving government agencies, without getting sucked into politics-as-usual; and involving disadvantages populations, while recognizing structural injustices that hinder representation. Similar “balancing” challenges occur with respect to the three other democratic principles and across them. Participation from many heterogeneous stakeholders requires advanced participatory capacities and calls for sophisticated deliberation procedures. These requirements alone slow down progress toward impact, and so do efforts to comply with good governance; yet, sustainability issues are urgent and demand immediate action. For most of these “balancing” challenges, the four FPCs (and others) offer some feasible solutions (or first steps toward those)—with plenty of opportunity for exchanges and learning from each other.

As food system sustainability and food democracy are often dealt with in vague and elusive ways, this article offers an operationalized framework for both, in conjunction with good governance practices. Applied to four FPCs in one region (Upper-Rhine Region), this comparative study complements the small pool of comparative case studies on FPCs that offer in-depth, yet, somewhat generalizable insights into the inner workings of FPCs. The comparative analysis identified common

challenges across the four FPCs, such as achieving balanced representation, but also highlighted unique success/failure factors of individual FPCs that offer transfer and learning opportunities to/for the other ones. For example, the FPC Basel that is still under development might utilize insights from the other three FPCs regarding fundraising. While the FPC Freiburg demonstrates how to secure funding from a variety of different sources (diversifying funding), the FPCs Mulhouse and Strasbourg heavily rely on government funding, which is constant and significant but comes with strings attached (influence). Another example is that the FPC Strasbourg offers insights into how to reform and restructure governance practices, even at a later stage, to increase effectiveness, functionality, and adherence to democratic/good governance principles; these experiences could be of great value to other, further developed FPC such as the one in Freiburg. In any case, transfer and learning opportunities call for more in-depth analysis and exchanges among the FPCs, which are already underway in some cases (for example, as part of a joint proposal preparation). Overall, this study offers a number of practical insights to the four FPCs and other ones in Europe interested in building their efforts upon recent experiences and indications of success and failure.

This study is not without limitations due to data gaps, small sample size, focus on the present and recent past, as well as the descriptive-evaluative nature of this research. Future research could first close data gaps encountered in all four cases; this would solidify and expand the insights from this comparative study and increase its utility for these and other FPCs. Future research could also broaden the sample size to further substantiate cause-effect relations between the democratic/good governance practices and FPCs' achievements in food system sustainability (theory-building); a larger-sample study could also help to further improve the methodological (evaluation) framework, identifying the most pragmatic and salient components. Third, while this study relied on an ambitious comparative setting that integrated various facets into an overall appraisal, it focuses only on the present and recent past. We thus envision future research that would add a longitudinal perspective that will harden evidence on FPCs' substantive sustainability achievement over the long term (and thus make a more robust case for significant investments/funding). Finally, future research could also more actively collaborate with FPCs to advance their performances and impacts (action research), as well as facilitate synergies and productive interactions among FPCs (not just comparing them). There is still a lot of ground to cover when it comes to food system sustainability, and research ought to evolve from its passive documentation role to a more active cooperation role in advancing the sustainability transition of our food systems.

Data availability statement

The raw data supporting the conclusions of this article will be made available by the authors, without undue reservation.

Author contributions

SM, AW, and LB designed the research project, as well as structured and led the writing of the manuscript together. BB and LaG contributed to the theoretical section. CV, LuG, and DS contributed to the data collection, the descriptive and evaluative analysis of the study. NB and MG-P contributed to the data collection, JL contributed to the discussion section. All authors contributed to manuscript revision, read, and approved the submitted version.

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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.2022.916178/full#supplementary-material>

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