

Acceleration of Just Local Food Initiatives



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An analysis of Local Food Initiatives in the Amsterdam Metropolitan Area

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Abbreviations

- LFI: Local Food Initiative
- AMA: Amsterdam Metropolitan Area
- SFSC: Short Food Supply Chain
- CSA: Community Supported Agriculture
- F2F: Face-to-Face
- SCP: Social or Cultural Proximity
- MS: Multi-Stakeholder
- MLP: Multi-level Perspective

Abstract

Modern agriculture has become highly industrialized and globalized, leading to unsustainable practices and a disconnect between farmers and consumers. Localization, ensuring that goods and services that can be produced and provided within a local area are produced and provided there, can bridge this disconnect and promote more sustainable practices.

However, this alternative system remains limited in size compared to the conventional food system. Furthermore, the concern regarding the idealization of these initiatives highlights the need to prioritize justice to establish a more impactful alternative food system. This thesis explores how local food initiatives (LFIs) in the Amsterdam Metropolitan Area (AMA) pursue justice and analyzes their efforts for acceleration while preserving their fundamental characteristics of being small-scale and locally focused.

To identify just LFIs, the four most prevalent tenets of justice within environmental justice theory, namely distributive, procedural, recognition, and restorative justice were utilized, in combination with ecology & non-human beings by Tribaldos & Kortetmäki (2022) and anticipation and reflexivity by Ludwig & Macnaghten (2020). This was combined with the five mechanisms of acceleration of Gorissen et al. (2018) in a novel conceptual framework. This framework highlights the way different types of LFIs pursue justice and acceleration to foster system change. The methodological approach began with extensive desk research on justice for 67 LFIs in the AMA and led to the interviewing of six LFIs on both justice and acceleration. The majority of LFIs in the AMA prioritize justice alongside local and sustainable food production. The findings emphasize the importance of replication and partnering for acceleration, showcasing their impact on communities and other LFIs. The findings also show a misalignment regarding the significance of upscaling for LFIs, as they do not want or prioritize it. Municipalities play a crucial role in supporting LFIs and can enhance this by leveraging the knowledge of embedded LFIs.

This research creates a new perspective on LFIs by incorporating the concept of justice, a social dimension, into existing acceleration literature. Moreover, the methodological approach helps to further define how acceleration works within a just and local scale. It is believed that this approach could be applied in similar regions where LFIs are emerging, to advance the development of the created conceptual framework.

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1. Introduction

Modern-day agriculture has developed into a highly industrialized and globalized operation, which results in a global approach to food and farming that has allowed unsustainable agri-food practices to evolve and become firmly established (Caalders et al., 2009; Mehrabi et al., 2022; Verburg et al., 2022). The current dominant food supply chain system, based on producing high volumes against the lowest possible price is no longer viable (Caalders et al., 2009). The produced volumes may result in relatively lower consumer prices, especially in the Global North, but also forces farmers to continuously innovate to increase yields and lower costs to maintain competitiveness for their farms (Verburg et al., 2022). These innovations are solely focused on the growth of the farm and lowering the costs of yields without considering the consequences for the environment, which leads to a negative impact on biodiversity, climate, but also farmers' pay.

In addition, food production under this industrial model disconnects and obscures the relationships and connections between people and the natural world, which results in negative ecological impacts such as climate change, biodiversity loss, and environmental degradation (Pollan, 2006; Mehrabi et al., 2022; Schneider, 2009). Concurrently, through the lack of transparency and the increased length of supply chains through globalization, the connection between producers and consumers is almost nonexistent (Local2Local, n.d.-a; Butler & Carkner, 2001; Caalders et al., 2009). The scale of the large, industrialized operation of agriculture takes place out of sight of the consumer, thriving on this consumer disconnection (Schneider, 2009). Consumers' knowledge of farmers' practices and food systems has been lost, together with the social and personal relationships consumers used to have with the farmers (Aasebø et al., 2007). While this inherently does not seem problematic, the consumer is kept in the dark about the unsustainable practices of the food industry and therefore lacks the knowledge to question the industrialized food system (Veldhuizen et al., 2020).

A promising solution to bridge this disconnect between farmers and consumers and to enable a joint impact towards more sustainable agri-food practices can be found in localization. Localization is defined as a movement that ensures that all goods and services that can be produced and provided locally, are realized locally (Quaye et al., 2010). It shifts the focus back to context-specific ecological and social factors, which globalized markets tend to externalize (O'Hara & Stagl, 2001). Ishii-Eiteman (2009) states that strengthening local food systems offers a pathway toward achieving equitable and ecologically positive food production and distribution. Local food initiatives (LFIs) are a means to reach localization, to remove the disconnect between production and consumption in the provision of food. LFIs can be described as community-based social innovations and are for instance farmers' markets, alternative food networks, or community-supported agriculture (Kalfagianni & Skordili, 2020; Sacchi, 2019). Their objective is to grow and harvest food closer to consumers' homes, to then transport it over much shorter distances than is common in the current global agri-food system (Partzsch, 2020). Butler and Carkner (2001) show that LFIs can question the industrial paradigm and make a positive contribution to their

ecosystem. Ideally, LFIs act like sustainable initiatives: satisfying society, or a smaller community, without exceeding the capacity of its supporting ecosystems (Morelli, 2011).

Contradicting this, more in-depth literature on the impact of LFIs doubts this positive view of consumers towards LFIs. For instance, Perrin et al. (2020) state that this producer/consumer relationship that LFIs promote often gets idealized, where consumers perceive LFIs as inherently sustainable and socially just, while this might not always be the case. History tells us that introducing and using innovations always carries winners and losers (Herrero et al., 2020). Alkon (2008) states that while farmers in their research deny difficulties in pursuing social and ecological justice, data shows that the need for vendors to sustain their livelihood often interferes with their goals for justice. It is therefore important to ensure social and ecological sustainability as the highest priority, to address the sectors of society at risk of being left behind or negatively impacted by new regulations or policies.

For this, the concept of just innovations is introduced. Ludwig and Macnaghten (2019) describe a just [and responsible] innovation as “shifting meanings of ‘innovation’ that emphasize contributions to societal goals rather than economic growth or technological modernization” (p. 26). This concept can be used in the context of this study to establish whether LFIs act as just innovations, since aiming for an alternative food system without social and environmental justice will not solve the problems mentioned. This also leads to the current research gap, referring to Perrin et al. (2020) worrying about this image of idealization when it comes to consumers’ perspectives of LFIs. Establishing what makes LFIs just and if they act as just innovations, would therefore help to create a more realistic picture of the social and ecological impact of LFIs.

Identifying the LFIs which are just innovations is valuable since these innovations have the potential to create a positive and just impact on the current food system. Currently, most LFIs take place in a niche, while impact truly happens once they can grow out of that niche into the current regime or mainstream, bringing transformation with them. Since these just innovations are focused on innovating the agri-food industry with a just character, it is interesting to see how they can grow out of their niche. For LFIs to reach the mainstream, acceleration of their transition is needed (Augenstein et al., 2020).

Acceleration is a key term that is often used when discussing these sustainability transitions, while this acceleration phase has been under-conceptualized in existing literature (Gorissen et al., 2018). Gorissen et al. define the acceleration phase as the phase “where visible structural changes take place through an accumulation of socio-cultural, economic, ecological and institutional changes that react to each other”. Acceleration of just LFIs in this context could lead to a systemic change and sustainable and just transition of a current food system. Gorissen et al. second that such initiatives are a promising starting point for triggering this wider systemic change toward more sustainable societies. Focusing this acceleration on just innovations could lead to an even more promising starting point for triggering change since these innovations already encompass most aspects of sustainability, therefore their

acceleration has the potential to have a broader impact on a sustainable food system.

Accelerating LFIs in agriculture has only limitedly been addressed, while research into LFIs in agriculture does show its potential. Holtslag (2010) states that initiatives in for instance the Netherlands, and especially the bigger cities such as Amsterdam, have currently developed on the smallest scale possible and sees great potential that if a bigger scale is reached for these projects, there are possibilities to create a sustainable and just food system with these initiatives. The research question will thus be as follows:

How can just local food initiatives in the Amsterdam Metropolitan Area be accelerated to transform the current Dutch food system?

To answer the research question, three sub-questions have been formulated:

Do LFIs address justice?

If they do, which aspects of justice do LFIs address?

What are the drivers (or absence thereof) for the acceleration of LFIs that have justice at their core?

The first two sub-questions are related to the just character of the LFIs chosen as case studies. These will be examined to see if they address justice in their business, and if they do, which aspects of justice they address. After this, the thesis will analyze those LFIs that have justice at their core, to see what the drivers are for the acceleration of just LFIs or if certain drivers are absent. These questions combined will ultimately answer the research question.

This research question will be answered by focusing on LFIs in the Netherlands. The Netherlands is known for its highly productive agriculture and has a large role in the international agri-food business, acting as an important hub in the international food system (WRR, 2017). Interesting in the Netherlands specifically is its compact, optimized, and dense landscape, which means that they have created a very physical divide between city and rural areas (Holtslag, 2010; Meerburg, 2009). This has created problems for farmers, which has led to the growth of the number of LFIs in the Netherlands (Meerburg, 2009; Steeghs, 2020). Accelerating just LFIs would therefore have a chance to impact a large actor in the globalized food system. Especially in the Amsterdam Metropolitan Area (AMA), the largest municipality of the Netherlands, this growth can be seen. This is the reason why the case studies of this research will be from the region of Amsterdam.

Scientific contribution

This study contributes to both the environmental justice literature and the transitions literature by proposing a combination of a theoretical and practical study. While growing literature does describe and research local systems, a substantial amount of this literature focuses on the technical aspects of food systems and distribution (Kang et al., 2022). They state that research on local systems is lacking in the social and cultural dimensions. This thesis addresses this gap, focusing on the just character of LFIs and therefore the social and

cultural dimensions. Secondly, the thesis goes beyond the current literature assuming LFIs are inherently just, and develops a framework to create an assessment of what entails a just innovation in the context of LFIs. Concurrently, it theoretically contributes the perspective of acceleration to the existing literature on small-scale initiatives, since acceleration is a topic that has been limitedly applied in the context of LFIs. Expanding on this, it also contributes the perspective of just innovations to the concept of acceleration. The acceleration of just innovations has been limitedly addressed in the literature, while it could lead to different results since LFIs have different goals for their acceleration (Feagan, 2007). On top of that, justice can be seen as a normative concept so a just acceleration may be more contested. Lastly, this study contributes to the evaluation of acceleration in LFIs, where it is seen not only as upscaling but also as collaboration, reflecting, and co-creating. This perspective is seen as valuable by researchers and is proven to be an under-researched topic (Gorissen et al., 2018; Van den Bosch & Rotmans, 2008).

Societal contribution

From a societal perspective, this research adds to the interest in a just alternative to the dominant global food system (Clapp, 2016). Research on just innovations identifies a clearer picture for consumers on the just aspect of LFIs and creates a realistic overview to negate the idealization of LFIs. It also identifies steps for producers to manage their perspective to just innovations in their company. Research on accelerating just LFIs will eventually lead to a clearer pathway for achieving a just alternative to the dominant global food system and makes this research a valuable contribution for both consumers and producers. Consumers will be more informed on the impact of LFIs on their own experience with food, as well as create awareness surrounding the food industry. Producers will be more informed on the drivers associated with owning a LFI and accelerating it.

The remainder of this thesis is structured as follows. This report first introduces the theoretical framework used for this thesis. After this, the methodology used to gather and structure the data of this research is explained, followed by an overview of the results. Finally, the results are followed by the discussion as well as the overall conclusion and recommendations of this research.

2. Background

LFI are presented as one of the ways to challenge the existing food system (Allen et al., 2003). They are commonly described as a system where “food is produced, processed, and retailed within a geographically circumscribed area defined in various ways as ‘local’” (Morris & Buller, 2003, p. 559). This means that food is distributed over much shorter distances than is common with the globalized food system (Partzsch, 2020). While activities of LFIs vary, most frame their concept around creating a food system that is environmentally sustainable, socially just, and economically viable by reconstructing the local (Allen et al., 2003).

2.1 LFIs and Sustainability

LFIs are often considered to have an impact on all three pillars of sustainability. They are widely promoted as such in agriculture policy, however, there is a need for extensive, quantitative research to confirm this (Jarzębowski, S., Bourlakis, M., & Bezat-Jarzębowska, A., 2020; Malak-Rawlikowska et al., 2019). Because of this, this background chapter will go into the *potential* impact LFIs can realize.

On an environmental level, LFIs are regarded as positively impacting the food system toward more sustainable food consumption (Ishii-Eiteman, 2009; Jarzębowski et al., 2020; Kneafsey et al., 2013; Martinez, 2010; Pradhan et al., 2010). It also encourages farmers to adopt more environmentally friendly solutions since they are more locally aware. Examples of adoptions made by farmers are the conservation of air, soil, and water, reducing pollution and waste, and conserving biodiversity (Kneafsey et al., 2013; Sellberg et al., 2020). Another environmental benefit that has come to light in recent years, is the reduction of so-called food miles by LFIs (ATTRA, 2008; Malak-Rawlikowska et al., 2019). This term refers to the distance that food travels from producer to consumer, and recent studies have shown that this distance has been steadily increasing over the years, due to globalization and centralization of suppliers. Localized food production and distribution have the potential to reduce emissions of food transport from the current globalized food system (Pradhan et al., 2010). Since LFIs cater to more local and/or regional consumers, it can be argued that they supply consumers with fewer food miles, thus emitting fewer carbon emissions (Malak-Rawlikowska et al., 2019).

Societally, LFIs have the potential to redress the current urban disconnect from the food system (Abatekassa & Peterson, 2011; Turner, 2011). Academics argue that the reason for this disconnect is the international restructuring of agriculture, resulting in the alienation of consumers from the production of food. LFIs try to revitalize the local community again, to create a stronger sense of belonging and close this gap (Albrecht & Smithers, 2018; Bianchi & Mortimer, 2015). Jarzębowski et al. (2020) have identified two relationships within the social aspects of LFIs and their impacts on the social sustainability of LFIs. The first is the reduction of social inequality and knowledge flow between LFIs that create value for consumers and society. This knowledge and resource exchange creates a social network of value adding LFIs. The second is the reduction of information asymmetry regarding production and process, which may lead to fair employment, involving the local community,

and principles of equality. A greater engagement of women in sales through LFIs is also observed, having a positive gender equality ratio (Malak-Rawlikowska et al., 2019). Smaller social impacts observed by Jarzębowski et al. (2020) were for instance the revitalization of local communities, the creation of communities, consumer empowerment, and enhanced trust within the value chain.

Economically, local food systems have the potential to positively impact the local economy and create a fairer profit allocation in the food supply chain (Jarzębowski et al., 2020; Martinez, 2010; Pearson et al., 2011). If consumers purchase food produced in their local area instead of imports from outside of this area, sales are more likely to directly go to the people and businesses in that area, creating better pay for farmers and better agency over food for both farmers and consumers (Bianchi & Mortimer, 2015; Martinez, 2010). In the sample that Malak-Rawlikowska et al. (2019) researched, sales through LFIs resulted in better prices achieved by producers, compared to the traditional agriculture system. Another economically sustainable aspect of LFIs is the reduction of transaction costs between all participants of a supply chain since this chain is shortened and thus better coordination can be reached (Jarzębowski et al., 2020). Jarzębowski et al. also identify the reduction of asymmetric information regarding production and process as an economic benefit, since it can lead to fair contracts and transparency within the supply chain, which in turn can lead to less corruption and fair wages.

2.2 Idealization of Impacts by LFIs

However, as explained, these are the *potential* impacts allocated to LFIs. These potential impacts sometimes get contradicted by more in-depth literature reviews by scholars in the field, as mentioned in the introduction (Perrin et al., 2020). Reasons for the appearance of a countermovement can be found in multiple aspects of the local food system. It could be because of the lack of research to confirm the impacts, as mentioned by Jarzębowski (2020). Another potential cause could be the fact that not all positive impacts always apply to all LFIs, but this is still assumed by the consumer (Perrin et al., 2020). This can lead to the idealization and overestimation of the sustainability impacts of LFIs on each of the sustainability pillars. Another reason could be the fact that policymakers' focus on concepts shifts away from the problems that are more important, towards more arbitrary concepts that are easier to market to the public (Shimizu & Desrochers, 2008).

An example of the latter can be found in the concept of food miles. The term food miles has been coined by the local food movement in the early 2000s and has been steadily used ever since (Shimizu and Desrochers, 2008). Since LFIs supply foods locally, they are seen as the solution to the problem of food miles (Coley et al., 2009). According to commentators, the problem is that over the years, the discussion on food miles has shifted away from the carbon accounting problem and science, into a more emotional context, based more on distrust and the idealization of LFIs (Coley, 2009; Schnell, 2013; Shimizu & Desrochers, 2008). Because of this, consumers more often assume that buying from a LFI is a direct solution to the problems arisen in the traditional food system, which is certainly not the case

(Coley, 2009; Schnell, 2013). They state that food miles are just the tip of the iceberg when it comes to sustainability but because of the growing discourse, policymakers are losing their focus on more pressing matters. Coley et al. (2009) argue for a revisitation of the ideas behind localism in the food sector, in the broader context of sustainability. We cannot expect consumers to dive deep into the literature before choosing to buy locally or not, but Coley et al. (2009) do argue for a more sophisticated public debate on local and regional food systems, where catchphrases such as ‘food miles’ can give way to a more robust approach.

The concept of food miles and its discourse is a specific example, but the message behind it still stands when talking about local food in general. The appeal of such concepts with their promises, is that it ultimately remains superficial (Coley et al., 2009). The course of the debate on a concept such as food miles is ultimately an instructive process because it highlights the need to remain focused on the issues that are proven to be important, such as the carbon emissions of the globalized food system. While focusing on a single concept might prove a solution in the short term, a holistic approach is necessary to combat such problems. This holistic approach can be used on any level of the food system, either by policymakers, municipalities, or the LFIs.

2.3 Types of LFIs

The multitude of LFIs with varying activities causes a categorization necessary to create an overview. This categorization can be found in the concept of *short food supply chains* (SFSCs). SFSCs are an umbrella term for LFIs’ activities and enable the classification of LFIs (Kneafsey et al., 2013; Marsden et al., 2000). There are three broad types of SFSCs, which different types of LFIs fall under (Kalfagianni & Skordili, 2020; Kneafsey et al., 2013; Marsden et al., 2000). This distinction between SFSCs and LFIs serves an analytical purpose, since in practice any business may be involved in more than one of the following categories. The categories are 1. Face-to-face interaction, 2. Spatial or cultural proximity and 3. Extended SFSC. This third category does not fit the definition of LFIs that is used in this thesis, so will be left out of the scope. Kneafsey et al. (2013) define the same categories as Kalfagianni & Skordili (2020) but create sub-classification for easier categorization of the multitude of different LFIs.

A third type that does fit the scope of this thesis is a categorization that encapsulates the multi-stakeholder aspect of LFIs (Lund, 2012). The LFIs in this category, which will be called multi-stakeholder LFIs, differ from the other two types because they carry multiple stakeholders within a single LFI. These categorizations, their sub-classifications, and their activities can be seen in *Table 1*. This gives a broad overview of the typology of the LFIs which is not binding to one type, indicating that a LFI can have activities from multiple categorizations and thus fit into multiple types.

SFSC type	Sub-classification	LFIs activities or typology
Face-to-face interaction (F2F)	On-farm sales	. Community supported agriculture (CSA) . Farm shops . Farm based hospitality . Roadside sales . Pick-Your-Own
	Off-farm sales – commercial sector	. Farmers' markets . Farmer-owned retail outlet . Food festivals/tourism events . Sales directly
Spatial or cultural proximity (SCP)	Off-farm sales – commercial sector	. Sales to retailers who source from local farmers and who clearly state the identity of the farmers . Sales to restaurants & bars that clearly state the identity of the farmers
	Off-farm sales – Catering sector	. Sales to organizations for catering purposes
	Farm Direct Deliveries	. Delivery boxes or other delivery schemes
Multi-stakeholder (MS)	LFI ownership - singular	. Foundations . Associations
	LFI ownership - multiple	. Cooperatives . Commons

Table 1: Classification of SFSC and LFIs according to Marsden et al (2003) and Kneafsey et al. (2013)

2.4 LFIs in the Amsterdam Metropolitan Area

Since the nineties, Amsterdam has had growing opposition against the globalization of the agri-food system (Van der Valk, Pineda Revilla & Essbai, 2021). The main driving force behind the emergence of many different food communities in the AMA is because of the growing demand from consumers for local, healthy food. This demand has even risen by 50 to 100 percent since the COVID-19 pandemic, because of the rise in home cooking (Eigeman, 2021). Since supermarkets cannot supply the demand of the inhabitants of the AMA, there is space for LFIs and change in consumers' households (Van der Valk et al., 2021). The diversity of different kinds of LFIs shown in *Table 1* is also apparent in the AMA, which makes it a good region as a case study for this research (Gemeente Amsterdam, n.d.; Van Amsterdamse Bodem, n.d.). The actors participating in LFI activities in Amsterdam are as numerous as *Table 1* shows, including CSAs, care farms, urban farms, food delivery services, food banks, and cooperatives (Van Amsterdamse Bodem, n.d.).

The municipality of Amsterdam has a history of creating food strategies that align with the demand of consumers in the region (Van der Valk et al., 2021). Strategies in 2007, 2014, and 2019 have already created more dialogue on their vision of food in the coming years, including the promotion of local food production. Their new vision has been planned to release in June 2023 and will focus more on the social impacts of food and local and regional

food initiatives, to increase the amount of local food that is produced and consumed in the AMA. The municipalities' goal is to have 25 percent of produced food localized in 2030, changed from the current five percent (Obdeijn, 2020). To ensure this, they are creating incentives to make sure that food that gets produced in the region, stays in the region, and does not get exported out.

Apart from the municipality, there are some movements led by citizens of the AMA who want to collaborate on a sustainable and future proof AMA on a larger scale. One of these initiatives is 'De Groene Stelling', which has identified the potential for a synergy between the city and countryside (OAK & Strootman Landschapsarchitecten, n.d.). They are working on a collaborative perspective for the areas inside the AMA because they have seen that the government cannot reach this synergy alone. This is one example of the initiatives surrounding food policy and transition in the AMA, by strengthening the goals of the municipality, but it shows that the civil movement surrounding Amsterdam is growing.

3. Theoretical Framework

In the theoretical framework, the concepts of a just innovation, and acceleration are explored and discussed to create a theoretical framework for this thesis.

3.1 Just Innovation

In environmental justice literature, a classical understanding of justice is found in Schlosberg (2004), which is taken up by many scholars (see *Table 2*). He argues that environmental justice needs to be seen as threefold: *procedural*, *recognitional*, and *distributive justice*. Seeing justice as a singular matter of distribution, or equity, cannot encompass the broad and diverse root of the problem. He states that the environmental justice movement must describe and embody more of the comprehensive, intersectional movement it stands for. *Distributive justice* can be summarized as equity in the distribution of environmental risk. It represents the inequitable distribution of harms and goods related to environmental governance. *Distributive justice* is the form of justice that has the focus of most justice governance and movements. Second is *recognitional justice*, summarized as recognition of the diversity in participants and experiences in affected communities. It states that everyone should have the ability to participate and benefit from environmental governance, without being required to adapt to dominant cultural norms. A lack of recognition not only constrains people and harms communities, but it also harms the distributive process (Schlosberg, 2004). If you, as a person or community, are not recognized, justice will always be distributed unequally. Thirdly, *procedural justice* can be summarized as participation in the political processes which create environmental policies. It stands for the ability of all individuals impacted by a decision to be able to participate in the decision-making process.

A fourth concept of environmental justice is regularly added by scholars: *restorative justice* (Tschersich & Kok, 2022; Ness & Strong, 2014). *Restorative justice* highlights the need for compensation for harm done to individuals, communities, the environment, and/or the climate. This should also reflect on past damages and redress historical injustices, including not only physical and material restoration, but also restoring trust and social cohesion within a community or social group (Whitfield et al., 2021).

Adding to Schlosberg, Tribaldos, and Kortetmäki (2022) propose a framework for just transitions in food systems. Their addition is the dimension of *Ecology and non-human beings*. *Ecology and non-human beings* are added to highlight the aspect of environmental integrity and justice for animals since both have inherent value. Since the context of this study lies in agri-food and food producer initiatives, this dimension is important to ensure the well-being of cattle (when used) and to reject environmental degradation for the sake of producing food.

Two other justice dimensions found in innovations literature are those of *anticipation* and *reflexivity* (Ludwig & Macnaghten, 2020; Schillo & Robinson, 2017; Stilgoe et al., 2013). Scholars observe just innovations as influential tools for aligning the change process with societal goals and identified two dimensions that could complement the dimensions of Schlosberg (2004). Debates about innovations require a robust notion of *anticipation*, which would consider safety risks and economic impact, but also other factors such as food sovereignty, biodiversity, and social structures. It is to ensure anticipation within one's actions, activities, and commitments. *Reflexivity* in social innovations means constantly reflecting on one's activities, commitments, and assumptions, being aware of limited knowledge or framing.

The dimensions have been summarized in *table 2*, as seen below. To ensure that measurement of these dimensions is possible, indicators have been derived from the literature previously mentioned, with help from Tschersich & Kok (2022). They carry most of the dimensions and have identified indicators for each. Dimensions not identified by Tschersich & Kok are *ecology and non-human beings*, *anticipation*, and *reflexivity*. These indicators are defined by their respective literature, meaning the indicators allocated to the *ecology and non-human beings* are derived from the literature by Tribaldos & Kortetmäki, while the indicators for *anticipation* and *reflexivity* are identified from the literature by Ludwig & Macnaghten. All indicators are shown in *table 2*.

Dimensions	Description	Indicator	Literature
Distributive justice	Ensure equitable distribution of costs and benefits, harms, and goods related to environmental governance.	. The LFI provides fair pay and working conditions . The viability of farming is retained or improved	Schlosberg (2004); Ludwig & Macnaghten (2020); Von Schomberg (2013); Tschersich & Kok (2022); Tribaldos & Kortetmäki (2022); Suiseeya (2014)
Recognitional justice	Recognition of the diversity in participants and experiences in affected communities.	. Traditional and local knowledge is respected and/or given a voice . People are not discriminated on grounds of gender, ethnicity, etc.	Schlosberg (2004); Ludwig & Macnaghten (2020); Foster & Heeks (2013); Chataway, Hanlin & Kaplinsky (2014); Tschersich & Kok (2022); Tribaldos & Kortetmäki (2022); Schillo & Robinson (2017)
Procedural justice	Ability of all individuals impacted by a decision to meaningfully participate in the decision-making process.	. Decision-making processes are sufficiently transparent and inclusive and provide a fair opportunity for all to be heard	Schlosberg (2004); Ludwig & Macnaghten (2020); Tschersich & Kok (2022); Tribaldos & Kortetmäki (2022); Schillo & Robinson (2017); Sengupta (2016)

		. Information on the potential impacts of the LFI on the environment is available to all	
Restorative justice	The need for compensation for harms done to individuals, communities, the environment and/or the climate.	. Actively contributing to the healing and repairing of harms done by the agri-food industry to individuals, communities, the environment, or the climate . Create an opportunity for harmed individuals or communities for active involvement in the repairing (i.e. restore jobs lost)	Tschersich & Kok (2022); Ness & Strong (2014); Whitfield et al. (2021)
Ecology and non-human beings	Ensuring ecological integrity and justice for animals	. Ecosystem health is protected or improved . Biodiversity is protected or increased . Soil, water, and air health/quality is retained or improved	Tribaldos & Kortetmäki (2022)
Anticipation	Ensure anticipation within one's activities and commitments, consider safety risks and economic impact of decisions made.	. The LFI always has a critical eye towards their decision-making process . The LFI monitors the effect of decisions and retracts decisions when they result in negative impact or safety risks	Ludwig & Macnaghten (2020); Schillo & Robinson (2017); Stilgoe, Owen and Macnaghten (2013)
Reflexivity	Constant reflection on one's activities, commitments, and assumptions, to be aware of limited knowledge or harmful framing	. The LFI carries a critical and self-reflective attitude	Ludwig & Macnaghten (2020); Schillo & Robinson (2017); Stilgoe, Owen, and Macnaghten (2013)

Table 2: Dimensions of just innovations as found in the literature

3.2 Acceleration of Small-scale Initiatives

To define acceleration, one must first look at system changes and transition literature, where transition scholars have defined the concepts of transitions and acceleration over the last decades. Transitions are “transformation processes in which society changes in a fundamental way over a generation or more”, as defined by Rotman et al. (2001). The widely used theory suggested by the Multi-Level Perspective (MLP) is one based on regime theory. It explains how regimes are locked by engaging in a set of activities that reinforce them and the system itself (Geels, 2002). While these regimes take place on a meso-level, niches take place on the micro-level. Niches are seen as a novelty, which accounts for the generation and development of innovations, which can evolve and modify the regime and thus the overall system if favorable conditions are reached (Geels, 2002). In the case of LFIs, regimes can be identified as the current global food system, holding its power with complex food chains and distribution systems. The niches can be identified as the LFIs, which were developed due to problems arising with the current regime, such as the power dynamics between producer and retailer or the loss of biodiversity. They are developing radical innovations and initiatives that could potentially disrupt the current regime and contribute to a permanent change. For this permanent contribution, the *acceleration phase* is crucial. Grin et al. (2010) state that “in the acceleration phase, the regime has an enabling role through the application of large amounts of capital and innovation. The regime changes as a result of self-examination or in response to bottom-up pressures from the micro level or top-down pressures from the macro level.” It should be noted that acceleration and speed are relative to each other, meaning that acceleration does not always equal speed (Rotmans et al., 2001).

However, the MLP framework also receives criticism for being a simplification of emerging novelties and disregarding the roles and strategies actors play in such processes, including their interaction (Markard & Truffer, 2008). This has resulted in researchers trying to develop and specify the MLP framework. Frameworks that have done this have for instance created theories around transition mechanisms (Van den Bosch and Rotmans, 2008), deep transitions (Schot & Kanger, 2018), scale dynamics (Hermans, Roep, & Klerkx, 2016), and transition management (Kemp & Loorbach, 2003). One framework specifically carries convincing dimensions for the topic of this research, which is the framework proposed by Gorissen et al. (2018). They have established a framework that is of significance for this study because it identifies the value of small-scale initiatives on the overall sustainability transition. Additionally, value is added because of its focus on the acceleration for specifically small-scale initiatives, which is not only focused on growth or upscaling. Most research mentioned earlier identifies upscaling as its primary dimension for acceleration, while this is not frequently true for small-scale initiatives. Feagan (2007) seconds this, stating that small-scale initiatives’ primary focus is their smallness and their connectedness with the consumer and that most small-scale entrepreneurs do not mind staying ‘small’. Mount (2012) mentions that scaling up could even question the legitimacy and values on which local small-scale initiatives pride themselves in.

Expanding on the framework created by Gorissen et al. (2018), they have conceptualized five mechanisms representing the acceleration dynamics of the sustainable transition (*figure 2*). These five mechanisms are identified as the following: *Replicating*, *partnering*, *upscaling*, *instrumentalizing*, and *embedding*. Their respective definitions can be found in *table 3*. As established, these mechanisms all focus on the smallness of these LFIs and therefore include themes such as collaboration and locality.

As can be seen in *figure 2* and *table 3*, Gorissen et al. do define an *upscaling* mechanism. The difference between their definition and the definition of previously mentioned literature is that their focus of upscaling is on the growth of members, supporters, and users instead of acceleration based on economic growth. It still focuses on the people surrounding this LFI to spread its vision instead of growing to gain more capitalization. This perspective of upscaling fits in with research that Druiff & Kaika (2021) have done in the region of Amsterdam. Their research shows clearly that the needs of small-scale initiatives when it comes to upscaling are very different. Small-scale initiatives are often expected to change in order to have a chance at institutionalization, as they are seen as inefficient by default. This leaves small-scale initiatives to make a choice, stay local and keep away pressures for growth, or sacrifice locality to be embedded in institutionalized organizations. The dimensions and indicators by Gorissen et al. take a very bottom-up perspective on this issue and do not identify upscaling as the sole dimension for acceleration. Therefore, the proposed upscaling perspective has a good fit with this research.

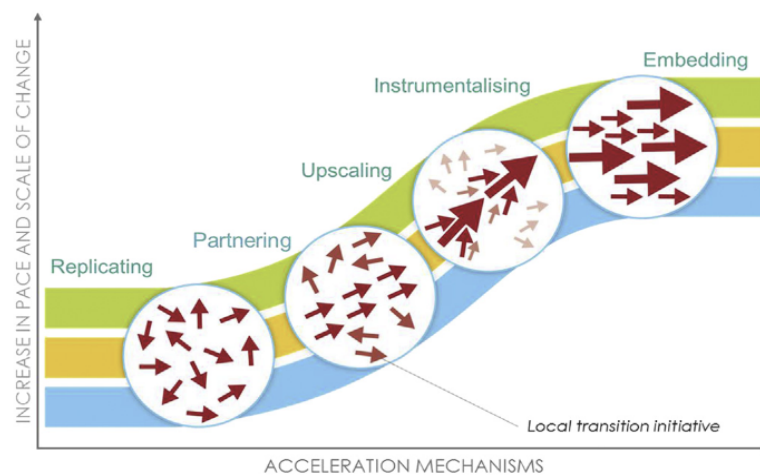


Figure 1: Five mechanisms of acceleration dynamics, found in Gorissen et al. (2018)

These dimensions by Gorissen et al. have been summarized in *table 3*, as seen below. To ensure that measurement of these dimensions is possible, indicators have been derived from Gorissen et al. After conducting data collection and analysis, specific indicators were identified by the researchers. These indicators will be utilized in this thesis. These indicators put the dimensions in the context of this thesis, therefore making the measurement of acceleration in case studies possible.

Dimension	Description	Indicator	Indicator definition
Replicating	The take-up of new ways of thinking of one transition initiative by another initiative (or different actors) to multiply within a system.	Inward replication	LFI is inspired by another LFI outside of their city or community and replicates
		Internal replication	LFI has replicated itself and settled within the region
		Outward replication	LFI has replicated itself outside of the region/country
Partnering	The practice of complementing and/or pooling of resources, capabilities, and capacities to create synergy. This ensures the continuity of the new ways of the transition initiative.	Between LFIs – within same domains	Partnering of LFIs that work on the same or closely related domain
		Between LFIs – across domains	Partnering of LFIs that don't work on the same or closely related domain
		Beyond LFIs – within & across domains	Partnering of LFIs together with other organizations
Upscaling	The growth of members, supporters, or users of a single transition initiative to spread the ways of the new ways of the transition initiative.	Growth of members and supporters	Perceived growth of supportive members and supporters of the LFI
		Upscaling for demand	Demand in produced product makes LFI upscale their innovation
		Increase in outreach	LFI organizes more events and activities to attract new 'users'
Instrumentalizing	Access to and capitalizing on opportunities provided by the governance context of a city to strengthen the initiative locally.	Mobilizing resources	LFI draws resources in that are made available by external actors
		Capitalizing opportunities	LFI used the rising trend of sustainability as an entry point for getting the ball rolling locally
Embedding	Alignment of old and new ways to integrate them into regional patterns	Routinization	The sustainable ways of the LFIs are embedded in the routines of the people involved in the transition initiatives
		Institutionalization	LFI succeeds in aligning practices, goals and agendas between the LFI and the government

Table 3: Five mechanisms of acceleration dynamics and their indicators, found in Gorissen et al. (2018)

3.3 Conceptual Framework

The two conceptualizations that have been developed above and are further operationalized in the thesis will be connected as follows. The first concept, just innovation, will identify those LFIs that are interesting for the second concept, acceleration. Therefore, the thesis will first focus on the just innovation of LFIs, using *table 2*, to identify those LFIs that address justice at their core. This step will be focused on the first two sub-questions. After this, those LFIs that emerge from *table 2* and adhere to certain criteria identified in the methodology, will be analyzed using *table 3*. This will lead to the answering of the third sub-question. Together with the first two sub-questions, the research question of the thesis will be answered. This conceptual framework is visualized in *Figure 2*.

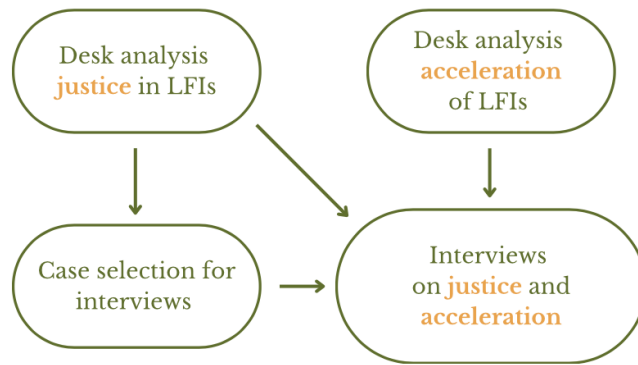


Figure 2: Visualization of the conceptual framework

4. Methods

This research is designed to answer the research questions and sub-questions as proposed in the introduction. It has taken on a qualitative approach. A primary analytical approach of this research is the extensive literature review to assess the relevant dimensions and criteria for both the just innovation and the acceleration of LFIs.

4.1 Case Selection

The research answers the research question by focusing on case studies in the Netherlands. The introduction has briefly summarized why the Netherlands and especially Amsterdam is interesting for this research question, but for the methodology, this proposal goes more in-depth as to why the Amsterdam Metropolitan Area (AMA) was chosen, including the selection of cases in that region.

The Netherlands has a compact, dense landscape, which creates problems for farmers when challenges arise (e.g. nature conservation v. farming or urbanization v. farming) because there are limited areas to expand or move to. These problems have made LFIs grow significantly in the Netherlands, especially in the last ten years, thereby creating an interesting empirical domain for the proposed research question (Meerburg, 2009; Steeghs, 2020). Within the Netherlands, the region of Amsterdam is the largest municipality of the Netherlands and houses a relatively high intensity of farming and production of local food products (Local2Local, n.d.-b).

Local2Local (L2L) is a collaborative working on a sustainable perspective for farmers and consumers. They do this locally, regionally, nationally, and on a European level by collaborating with everyone who has an interest in creating a sustainable food system. Interestingly for this thesis is that they have recently started a collaboration together with the municipality of Amsterdam, where they have created a collective of over 400 local food producers, farmers, and food innovators. The focus of this initiative is to create a short food supply chain for healthy, honest, and sustainable products and bring back power to the consumer (Local2Local, n.d.-a). These LFIs are in the stage of maturity where acceleration is possible and thus makes the AMA and this collaboration a great case for this research.

This initiative by L2L was the basis of the case studies chosen in Amsterdam (Local2Local, n.d.-b). The portfolio of this initiative carries over 400 farmers, divided into four farmer collectives: *Proefkantoor*, *Groene Hart Coöperatie*, *Vereniging Flevofood*, and *Boeren van Amstel*. Next to this, *Van Amsterdamse Bodem* is a platform that also carries information on food initiatives in the AMA. Since this platform also carried the information on most of the initiatives mentioned in the portfolio, this platform was used as the main source of information. Details on how many cases were selected for the thesis and the criteria they were evaluated on are explained in the data collection.

Of these farmers, information could be found on their individual websites, through the websites of their respective cooperatives, through *Van Amsterdamse Bodem*, or through

documents provided by L2L. Regarding initiatives that lack information about the individual LFIs they host, the initiative was recognized as the LFI (*ProeVkantoor, Groene Hart Coöperatie, Boeren van Amstel*). If the initiative carried the names of their individual LFIs on their website, these were recognized as the LFIs (*Flevofood*). For instance, *Flevofood* is a collective where you can buy the products of individual companies' products. These companies have their own website, vision, and missions, so these were seen as individual LFIs. *Boeren van Amstel* does not carry the names of the farms they collaborate with, so *Boeren van Amstel* is seen as the LFI.

4.2 Data Collection

Two methods of data collection were used in this research: desk research and interviews with relevant stakeholders. These methods have been divided into two steps for this research, where **step 1** focused on desk research of a larger data set, and **step 2** focused on a smaller data set with interviews.

Step 1

Since this research started with a bigger set, solely carrying out interviews was not realistic and would not give back the relevant data needed for the assessment of just innovations. Therefore, for **step 1** of this research, the method of desk research was used to gather a large set of information on the LFIs in the Amsterdam area. It solely focused on information on justice in the case studies, with *Table 2* as a guide. This means that information that was available in the online presence of the LFI was analyzed to identify words or sentences that could be categorized within the indicators of *Table 2*. If information led to the assumption that an indicator or dimension was covered by the LFI, this would be noted in an overview. If no information on justice was found, zero indicators would have been given. It was not possible to gather any information on acceleration through desk research since this type of information was not available in the online presence of the LFIs. Ultimately, data was collected on 67 LFIs in the AMA.

A list of criteria was identified and meant to operationalize the data collection process for the next step. This meant that the LFI must have addressed at least one of these criteria to have been considered for the next part of the study. The criteria were as follows: 1. The LFI carried all dimensions, 2. The LFI identified a dimension not seen in most other cases, 3. The LFI had a different combination of dimensions than most other cases, or 4. The LFI reflected dimensions not found in the literature review, but which are interesting for the thesis. These criteria were based on the premise that the LFIs with the most or the rarest dimensions of justice are the most interesting to analyze in the next step. It also aligned the data collection with the third research question, which is to find out what the aspects of acceleration are of LFIs that have justice at their core. These criteria aimed to create an interesting case selection for the interviews, however, it became clear that the list of criteria could not be used due to unanticipated events. An initial list was made of interesting LFIs through these criteria, and these were contacted, only to receive no answers or respondents saying the harvesting season was too busy to make time available for an interview. The more

respondents were unable to be reached for an interview, the less these criteria were vital in the case selection process for the next step. The research aimed to ensure the inclusion of at least one representative from each type in **step 2** of the thesis, and this objective was successfully accomplished.

Step 2

After **step 1** was completed, promising LFIs had been identified through the stated criteria. For **step 2**, interviews were held. They identified more in-depth information and uncovered information that was not found through documents. The number of LFIs that were interviewed in the end was six. These were interviewed using a semi-structured format where a basic set of questions was asked, but which included the flexibility for the LFIs or the author to include interesting themes or topics that arose during the interview. The basic set of questions for the interviews was based on both the theory of just innovation and acceleration, but the focus was on the latter. For the just innovation theory, the questions entailed their personal experience with justice in an organization and how important it is for them. These questions gave limited new insights since most interviewees were not fully aware of the just practices of their LFI. For the acceleration aspect, *Table 3* acted as a guide, with a set of questions for each mechanism and accompanying indicators. For upscaling, questions were asked about their own experience and ambitions for growth since the focus is not only on upscaling but also to identify different perspectives on the upscaling of local initiatives. These interview questions can be found in *Appendix I*.

4.3 Data Analysis

Since the data collected on just innovations through the desk research was based on qualitative dimensions (as mentioned in Section 3) this data was analyzed using qualitative interpretive analysis (QIA). This means that the data collected has been coded accordingly, to identify patterns and themes in how the LFIs interpret their reality (Mason, 2002). The central idea behind coding or indexing is that a uniform set of categories is applied systematically and consistently (Mason, 2002). For desk research, this meant collecting data according to the dimensions and indicators formulated in Section 3 which were also the basis for the indexing that happens after. The dimensions and indicators were then analyzed according to the occurrence of the indicators, types of LFIs and their indicators, and different combinations of indicators and dimensions. This process led to six case studies being further investigated.

The data collected through the interviews was also analyzed using QIA. First, the interviews were transcribed accordingly, using the transcription tool by Microsoft Teams or transcribed by hand for the in-person interviews. The transcription was still checked for errors and/or clarification. Thereafter, the coding was done through the program NVivo, which allowed for easy and systematic coding and categorization of the collected qualitative data. NVivo is most useful for interviews since transcriptions can be easily uploaded and used. The data collected was analyzed according to the techniques Mason describes. She outlines an approach that ensures a systematic and consistent analysis but also leaves room for creativity

and flexibility while interpreting data. The list of themes to include in the coding process included the five mechanisms by Gorissen et al. (2018) and the corresponding indicators and the dimensions of justice, as seen in *Table 2*. Ultimately, this process led to a set of drivers for accelerating LFIs and answering the research question. A visualization of the performed study design can be seen in *Figure 3*.

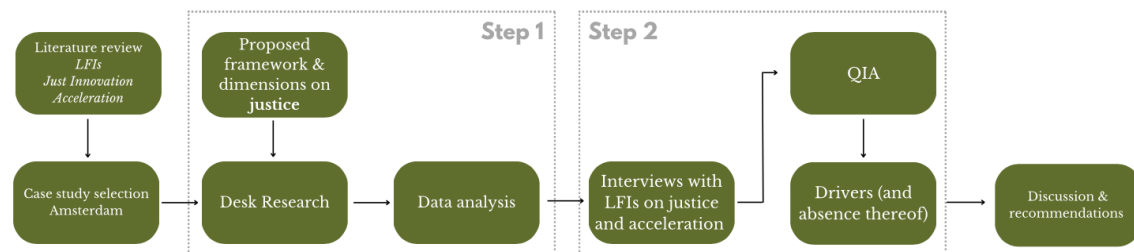


Figure 3: Proposed research design of this study

4.4 Validity and Reliability

Two of the most prominent criteria for the evaluation of qualitative research are *validity* and *reliability* and since this study combined different sources of data, it is important to discuss both.

Validity is in many ways the most important quality criterion (Bryman, 2016). It is concerned with whether a piece of research (dimensions, criterion, etc.) measures the concept and creates data that upholds the integrity of a conclusion. Validity was ensured in this study by executing in-depth literature reviews before the construction of the framework, dimensions, and interview questions. This established an operationalization based on previous studies for which validity is already ensured.

The concept of reliability is defined as the question of whether the conclusion and results of a study are repeatable, or the consistency of the measure of a concept (Bryman, 2016). Reliability is especially an issue with quantitative studies, but interpretations for qualitative studies do exist (Bapir, n.d.). Bapir states that in a qualitative study, reliability can best be addressed by using standardized methods to write notes and transcripts, when dealing with interviews, and by using the same themes and categories consistently when coding data. Reliability was ensured in this study by determining a standardized method of writing notes, transcribing, and coding. The process for determining the standard for these steps has been accordingly described in their respective section.

4.5 Ethics and Consent

Individuals or companies participating in interviews were informed regarding their participation in interviews and were asked to sign a written consent form, to ensure safe data collection and handling. This consent form can be seen in *Appendix II* and has been signed by every interviewee.

5. Results

5.1 Desk Research

This section will first present the data gained from the desk research, identifying how justice is integrated into the organizations researched. This will create a general overview of results and allow identifying the LFIs that are most relevant for the next phase of this thesis. It will aim at answering the first two sub-questions of the thesis: “Do LFIs address justice?” and “If they do, which aspects of justice do LFIs address?”.

5.1.1 Data Analysis

For the desk research on just innovation, the websites of 67 LFIs in the Amsterdam Metropolitan Area (AMA) were examined for the proposed indicators (see Section 3). The results of this desk research are shown in *Appendix III*, where the “Y” indicates that an indicator was found in the information available online or to the researcher. *Appendix III* contains three different tables, each for every type of LFI in this research: face-to-face (F2F), social or cultural proximity (SCP), and multi-stakeholders (MS). The LFIs in this table have been sorted to their main categorization, which means that LFIs that could potentially fit into multiple categories have been allocated to the category that fits the largest part of their activities. In *Figure 4*, an overview of the researched LFIs has been made including their respective location within the AMA.

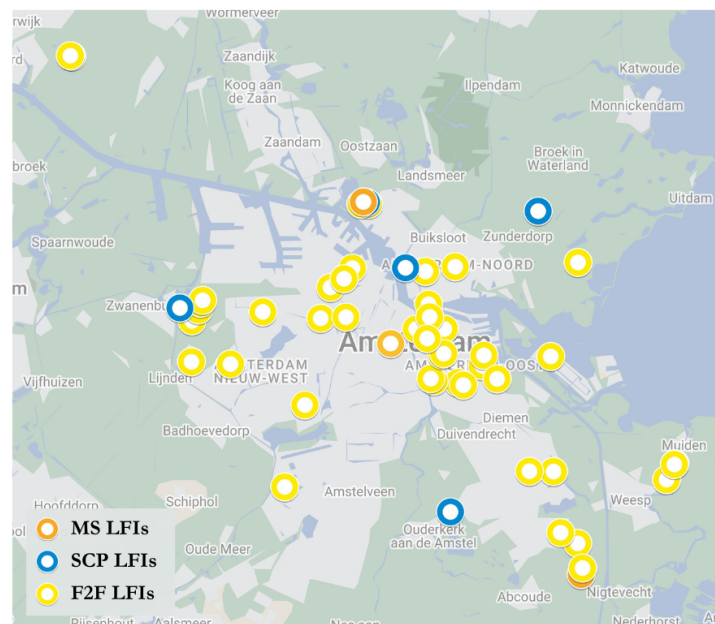


Figure 4: Overview of researched LFIs

In this overview, only the LFIs that have a known location are included. Most SCP LFIs and cooperations did not have a known address, only a postbus address. These were not included in the overview since they do not give information on where the food is produced.

Types of LFIs

In total, data was collected on 67 LFIs. Of these 67 LFIs, 50 were of the face-to-face (F2F) type, 10 were of the social or cultural proximity (SCP) type, and seven were multi-stakeholder (MS) LFIs. Eight LFIs included no indicators of justice in their information online.

For the LFIs that are of the F2F type, 16 have activities surrounding direct sales of products from their own website, or through a farm shop situated on their property. Next to this, 14 of the LFIs have a (community) pick-your-own model. This means that it is either a public pick-your-own farm or garden, or it is a pick-your-own only accessible to owners of a piece of land or the community it is situated in. Nine of the identified LFIs are CSAs, either outside of the city of Amsterdam or situated within residential areas. A few other activities have been identified with one or two LFIs per activity, such as a farmer-owned retail outlet, farm-based hospitality, and an affiliated restaurant.

Of the 10 SCP LFIs, seven carried out sales to (specialized) retailers and/or restaurants and three carried out some sort of delivery scheme or box. The number of cases analyzed for the SCP LFIs is significantly lower than the F2F LFIs, which could be attributed to the fact that local businesses often do not have the logistics or work power to organize a delivery service. The other reason could be the fact the desk research identified a lot of LFIs cherishing the community building of their LFIs, which is harder to do with a delivery service than with a location where people can walk around and create connections.

Amongst the seven MS LFIs, six cooperatives and one foundation were identified. Their activities range widely from creating a larger network for food entrepreneurs to building community events all over the Netherlands. For them, the results for justice vary significantly. Since MS LFIs are local organizations that have created a platform for LFIs or created opportunities for LFIs to gain access to bigger markets, some state their own mission and vision for justice, while others let the LFIs speak for themselves. This is reflected in the desk research, as the number of indicators identified amongst this category is relatively low, except for *Wij.land*.

Aspects of justice

As can be seen in *Appendix III*, information on 14 indicators of justice was gathered from the participating LFIs. A broad overview of this appendix can be seen in both *Figure 5* and *Figure 6*. *Figure 5* gives an overview of the number of times a dimension of justice was identified, while *Figure 6* shows the number of times a specific indicator was identified. Interesting are the occurrences of the different indicators, showing which indicators are already more integrated into the organizations than others.

Dimensions of justice in 67 LFIs

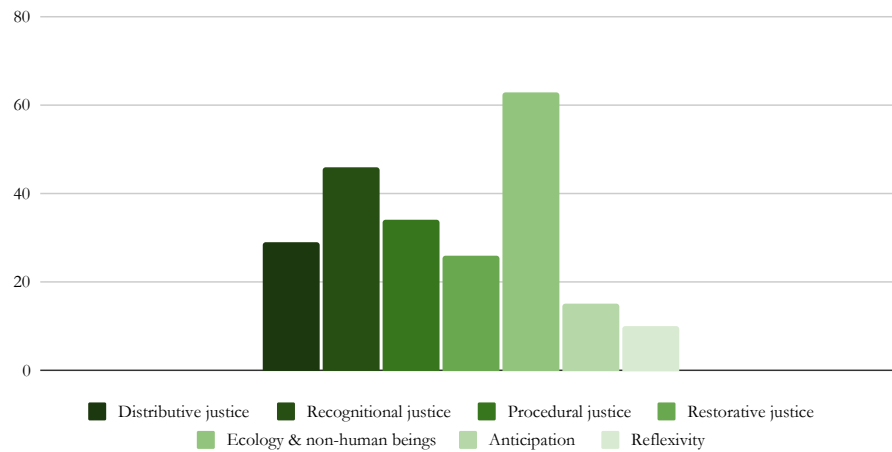


Figure 5: Overview of identified dimensions of justice

Indicators of justice in 67 LFIs

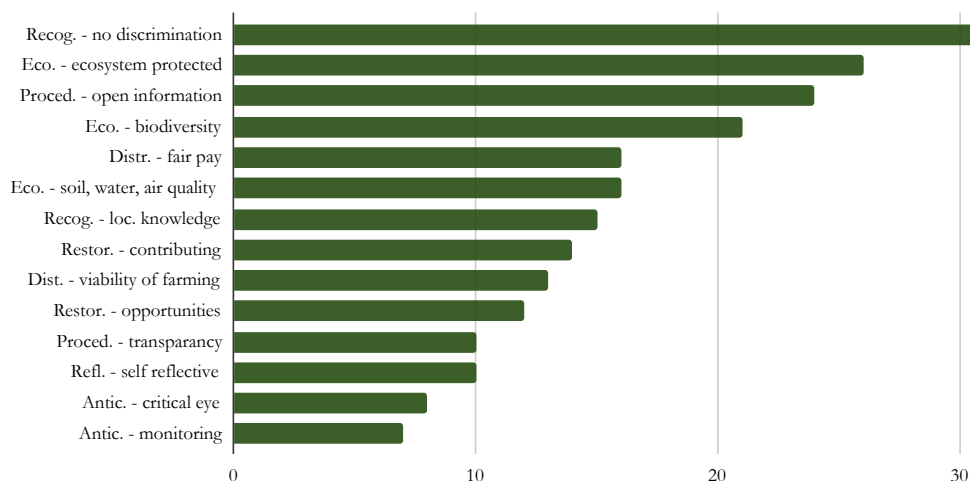


Figure 6: Overview of identified indicators of justice

The dimension that was identified most was the *ecology & non-human beings* dimension. All three indicators (Biodiversity, Ecosystem & Soil, Water, and Health) were identified relatively often, with ‘Ecosystem health is protected or improved’ as the most identified of the three indicators (26 out of 67 LFIs). This can be attributed to the fact that this dimension is the closest related to environmental sustainability, something these LFIs are most aware of and sometimes the reason why they started the organization in the first place. For instance, *Voedselbos Amsterdam Zuidoost* wants to create a fair environment for nature to thrive and for humans to connect to this nature. The message of justice and environmental sustainability, as explained in the background chapter, often go together. The three indicators of this dimension were also identified together in most cases.

After this, two dimensions were relatively often identified: *recognitional justice* and *procedural justice*. *Recognitional justice* was identified in 46 out of 67 LFIs, and *procedural justice* was found in

34 out of 67 LFIs. Of these two dimensions, the indicators that were most identified were first, the *recognitional justice* indicator for non-discriminatory behavior, being identified for 31 out of 67 LFIs. This makes this indicator the most identified of all indicators in this thesis, but since the second indicator (Respect for local knowledge) was not identified as often (15 out of 67 LFIs), it was not the most common dimension in the study. This indicator was identified most amongst the F2F LFIs, and especially amongst the CSAs and pick-your-own types. Since these F2F LFIs are the ones with the closest relationship to the consumer, since the consumers are allowed and necessary to be involved in the LFIs, it could be an explanation as to why this indicator is maybe more important amongst these types. Second, the indicator that was most identified within these dimensions was the *procedural justice* indicator for the availability of information, which was identified 24 times out of 67 LFIs. This indicator is seen more equally through all the different types of LFIs. Both these indicators are related to the openness of the organization and the way they position itself in the available information. On the other hand, the indicator for *procedural justice* (Transparency & Decision-Making) is one of the least identified indicators in this data set, having only been identified ten out of 67 possible times. A reason for this could be the fact that farmers possess a strong sense of independence and prefer to handle their farm operations without seeking any external assistance. Another explanation could be the fact that since these LFIs are relatively small, the decision-making (DM) processes of the LFIs often are in the form of local in-person meetings. This would mean that information regarding the meetings and their contents are solely discussed at that moment, resulting in less information on their DM processes online. This does not necessarily mean that their DM processes are not inclusive or transparent, it could just be that they are less public.

Distributive justice is a dimension that was identified 29 times out of 67 LFIs, which is not as often as the procedural and recognition justice dimensions. Both indicators of *distributive justice* (Fair Pay & Viability) are identified relatively equally in the case studies, the first being identified 16 out of 67 and the second 13 times out of 67. For the first indicator, this could be related to the fact that this indicator is more common sense for local organizations and is not explicitly named. Another reason could be that some of the types such as pick-your-own LFIs do not employ farmers or producers but identify themselves more as a collective that pays themselves with the produce they harvest. Interesting about the *distributive justice* indicators is that it has been identified most frequently in the community-supported agriculture (CSA) types of LFIs, with four out of eight CSAs including both indicators. CSA is a form of farmer-consumer collaboration, where people pay a yearly fee to cover the production costs and to share the risks of farming, in return for part of the yield. Since the farmers and consumers are closely connected, this can lead to a more transparent conversation on what fair pay is. For example, *de Stadsgroenteboer* has a full cost breakdown on their site, showing the consumer what a fair wage would be, and creating a conversation about fair food.

The three dimensions that were identified least are the *restorative justice*, *anticipation*, and *reflexivity* dimension. *Restorative justice* is a dimension that relates to the contribution and

opportunities of an organization to harmed individuals and communities. This dimension has been identified 26 times out of 67 LFIs. Since this can be seen as a very proactive dimension of justice, it can be a reason for it being one of the least identified dimensions. The first indicator of *restorative justice*, actively contributing to healing and repairing, was identified 14 out of 67 times. This is more than the other indicator for this dimension, with that indicator being identified in 12 out of 67 LFIs. An explanation for this could be the fact that contributing to the healing and repairing can be done in various ways within the organization but creating opportunities for other individuals and/or communities needs a connection to the community and the individuals, to seek out those harmed by the industry. For LFIs that are relatively small, this could be of less concern than other indicators. The dimensions of *anticipation* and *reflexivity* are even less identified than the *restorative justice* dimension. Information pertaining to *anticipation* was identified a total of 15 out of 67 times, while *reflexivity* was identified in ten out of 67 LFIs. A reason for this could be related to the fact that both these dimensions are about the critical eye towards the organization, and organizations thus do not necessarily write them down. Interestingly, the organizations that did have these dimensions identified during the desk research, are also the LFIs with the most indicators or the most diverse ones.

5.1.2 Cases

In the methodology, the process for selecting LFIs for **step 2** has been explained. This has led to a total of six selected LFIs for the interviews. These LFIs have been made **bold** in *Table 4* and a short overview of each LFI is presented below. The LFIs interviewed are the following: *The Pollinators*, *Stadslandbouwnproject NoordOogst*, *Vers aan de Vecht*, *de Stadsgroenteboer*, *Boeren van Amstel*, and *Voedseltuin IJplein*. Of these selected LFIs, one is a multi-stakeholder (MS) LFI (*NoordOogst*), three can be classified as face-to-face (F2F) LFIs (*The Pollinators*, *Vers aan de Vecht*, and *Voedseltuin IJplein*), one has activities allocated to both a F2F and social or cultural proximity (SCP) classification (*de Stadsgroenteboer*), and one has activities related to both a SCP LFI and a MS LFI (*Boeren van Amstel*).

The Pollinators is an organization that carries the mission to increase biodiversity for the benefit of both humans and animals. They have been doing this since 2016, in an engaging and community-based way, creating events around pollinating and biodiversity with access for everyone. Their two biggest campaigns are ‘Foodbanks for Bees’ and ‘TreeVember’. This second one is the most interesting for this thesis because the goal of this event is to build awareness around food and specifically agroforestry. They see agroforestry, which is the act of low-maintenance and sustainable food production using different nut- and fruit trees, as one of the primary ways to enable the food transition. *The Pollinators* is the LFI where the most justice dimensions were identified in their online presence.

Stadslandbouwnproject NoordOogst is a foundation situated in Amsterdam Noord since 2014. It is a large park accessible to everyone, where anyone can be inspired and creates awareness of conscious food consumption and sustainable living. For this, they have created five pillars to ensure configuration between initiatives that are part of the park. These pillars are ecology,

economy, education, recreation, and a social function. Their park always consists of around 20 initiatives, that touch upon most of these pillars. The configuration of the park is also ensured because of the synergy and collaboration between the different initiatives: a by-product of one initiative can be used by another.

Vers aan de Vecht is a pick-your-own garden combined with the CSA concept, situated in Weesp, on the edge of the MRA. They have been producing local and biological food since 2021 and by having a pick-your-own concept, create a closer connection between consumer and their food. Next to the pick-it-yourself consumers, they employ three farmers that care for the vegetables and herbs for around 160 households every year.

De Stadsgroenteboer is a CSA situated in Amsterdam-West, where people can buy a share at the start of the season. In return for this share, they receive a food box containing fresh and non-certified organically grown food at a pick-up location of choice or by picking it up at the farm itself. Unlike other CSAs, they do not have mandatory volunteering days for shareholders, and the six of them grow all their vegetables and herbs themselves, using bio-intensive techniques for larger yields. They have been doing this for five years and deliver food to around 200 households this year, creating a visible and transparent change in the local food system.

Voedseltuin IJplein is a community garden for and by local residents situated in Amsterdam-Noord. Everyone that works in the garden gets a part of the harvest, while the largest part gets donated to social projects such as food banks. It was founded in 2012 and is run fully by volunteers. Their two core business practices are first to grow vegetables, fruit, and herbs for the food banks and second to create a meeting place for the neighborhood to improve social cohesion.

Boeren van Amstel is an organization established to go against the standardization of the milk industry and to embrace nature. Their milk is not standardized but is sold just the way their farmers get it from their cows. Their organization works together with 18 farmers to create milk-based products and deliver them to supermarkets, local markets, and local shops within the AMA. Their farmers participate in nature conserving practices and for every milk carton that is sold, 2 cents go to the *Weidvogelfonds*, a fund for protecting and increasing the quality of the living environment of meadow birds.

5.2 Interviews

This section shows and discusses the results of the interviews regarding the dimensions of justice and acceleration in their respective sub-sections.

5.2.1 Data Analysis – Justice

This section further analyzes how justice is integrated into LFIs and shows the difference between the online presence and the in-real-life situation of the LFIs.

As mentioned in Section 4, some new insights were gathered through the interviews. Most interviewees certainly thought justice was important in their organization but could not pinpoint how and to what degree the organization was working towards justice goals, including the LFIs that had scored high in the initial desk research. This could be an indicator that justice is more implicitly pursued by the LFIs. Interviewees were also more interested to talk about the acceleration mechanisms. Insights that were gathered were mostly background information on the dimensions that were found in the desk research, but this only entailed one or two dimensions out of the four or five that were found in the initial desk research.

Distributive justice was identified by *Vers aan de Vecht* as a vital part of their LFI. A fair wage is of importance in their business structure, stating that “without their [the farmers] work, the garden would not be where it is now. They do this with so much passion and all by hand, it should be valued as such”. Fair wage was also part of the interview with *Boeren van Amstel*, building on the sentiment to create more pay for farmers and give back to nature, increasing the viability of farming. *De Stadsgroenteboer* showcased what a fair wage would mean in their business structure and how important a fair wage is to ensure the current life, but also the future of farmers, creating viability for farming.

Recognitional justice is a dimension that came forward the most in the interviews with *Voedseltuin IJplein* and *Vers aan de Vecht*. For *Voedseltuin IJplein* this meant ensuring the integration of the neighborhood in the garden and creating a safe space for everyone to join. The interviews with *Voedseltuin IJplein* and *Vers aan de Vecht* both had more focus on the integration of the community in the LFI and the community they created. *NoordOogst* also stated that they are always open for everyone and want to create a safe space for adults and children alike to explore the community and surroundings of *NoordOogst*, which falls in line with the second indicator of *recognitional justice*.

Procedural justice was identified in three separate interviews. *De Stadsgroenteboer* spoke about the open discussion they have put on their website about their wage and the costs of labor, incentivizing consumers to pay what they think is just for the labor and food they receive. Just by communicating it like this, they have seen an increase in what the consumer pays for their vegetable boxes, showing that transparency can pay off when for an honest and just cause. *Voedseltuin IJplein* also stated that they put all board meetings online, to showcase what decisions are made and what processes are running, in the name of transparency. *NoordOogst* expects all LFIs housed in their park to adhere to their mission and vision, be transparent and open, and foster and invite collaboration within and outside of the park.

Voedseltuin IJplein and *Vers aan de Vecht* gave good examples of *restorative justice* in practice. Donating most of their harvest to the food banks in the neighborhood strengthens the position of *Voedseltuin IJplein* in the community. For *Vers aan de Vecht* this meant that they were exploring the reach of their community, creating a program so people with less access

to money can still participate with the LFI. Working together with the food bank also ensures a connection to their neighborhood.

The dimension of *Ecology & non-human beings* was identified in all six interviews since all LFIs interviewed have some goal, mission, or vision in line with ecosystem health, biodiversity, or soil, water & air quality. For example, *Boeren van Amstel* has an integrated monetary donation towards an ecology fund with every sale of their milk products and *The Pollinators* have a yearly 'Save the Bees' event to increase biodiversity throughout the Netherlands. This dimension led to no new insights since most LFIs already carried most information on their website.

The expectation was that the *anticipation* and *reflexivity* dimensions would be more present during the interviews than during the initial desk research, but this was not the case. Only the interview with *Boeren van Amstel* showed the *reflexivity* dimension in their decision-making processes. They started their business with a farmer-owned factory, but they, unfortunately, went bankrupt because of a combination of different problems. They reflected and saw this factory as the largest loss and decided to revitalize the company without the factory in their business plan. Now, two years later, the company is finally thriving again, and they still stand their ground that while the factory was a great idea, it did and cannot work in the end. This shows some amazing *reflexivity* and is therefore a great example of this dimension. This dimension was not identified at *Boeren van Amstel* during the desk research since this insight is quite personal and not easily found online.

All in all, the interviews led to some great examples of justice in practice and confirmed most insights found during the desk research. An interesting case is *Stadslandbouwproject NoordOogst*, which in the initial desk research had only two indicators of justice identified. During the interview this changed, since with almost every question, a link to justice in their organization was made. Looking back at *Appendix III*, around nine indicators would be allocated to *NoordOogst*, a major difference.

5.2.2 Data Analysis – Acceleration

This section aims at answering sub-question 3 “What are the drivers (or absence thereof) for the acceleration of LFIs that have justice at their core?”. For this, the acceleration mechanisms from *Table 3* are explained separately.

Replicating

The three indicators found in Gorissen et al. (2018) study on acceleration, were also found in this study: *inward replication*, *internal replication*, and *outward replication* (see *Table 3*). Two out of six LFIs indicated that actors external to Amsterdam were visited to gain knowledge for the start of their business. Next to this, all six LFIs had examples of entrepreneurs visiting their grounds to gain inspiration for their own, similar LFI. This ranged from LFIs starting within the region of Amsterdam, but also within The Netherlands and even outside of this, going as far as Brazil and New York. Only one LFI, *De Stadsgroenteboer*, spoke of internal replication by getting more harvesting ground in a different part of town. Both *The Pollinators* and *Boeren van Amstel* spoke of replicating outside of the region, but this was only conceptual and has not taken shape yet.

While only two out of six LFIs were the result of inward replication, all six LFIs did mention the existence of replication from their own organization. Another fact is that two out of six LFIs are one of the starting organizations in the Netherlands within their LFI type.

Voedseltuin IJplein was one of the first food gardens in the Netherlands, and *NoordOogst* was one of the first to create a project at such a scale. So, while only two out of six interviewees have partaken in inward replication, the fact that all six have their own experiences with replication still suggests that there are advantages to replicating existing LFIs instead of creating new ones. Possible advantages that arose from the interview are (1) Seeing that the idea and scale are possible might motivate the aspiring entrepreneur to move from idea to start-up; (2) While most of the time a learning curve is tough during the startup phase, replication lowers this curve with knowledge sharing; (3) Knowledge of governmental, legal or technical issues that could arise helps create a more sound business plan before the LFI has been established. Replicating from outside of the city also creates a more diverse dialogue within the city region. An example of this is the interviewee spoken to from *De Stadsgroenteboer*, who got inspired by her home country Switzerland, where CSA is a normalized concept. During her time as a farmer, it has gotten normalized in Amsterdam and more people are interested in joining a LFI. In the two instances of *outward replication*, both were named as alternatives to upscaling. *Boeren van Amstel* sees that the knowledge they have gathered cannot all be implemented into the existing structure and therefore see the benefit in creating the “*Boeren van ...*” concept in other places, that have learned from their previous mistakes and lead to more areas of nature conservation and local food production.

Replicating seems to be a mechanism that promotes and helps local production while increasing the diversity of initiatives in the city and outside. Next to this, creating inspiration for civilians who have a similar idea can incentivize the growth of LFIs in the region.

Partnering

The findings suggest that partnering of LFIs occurs between similar LFIs, but also between LFIs that are less closely related in the same domain, and even between the LFI and other, non-LFI, organizations. These organizations are not always organizations that have sustainability as their focus. Three of six LFIs had close ties to other similar LFIs, working closely together with for example the neighboring farm (*Vers aan de Vecht*) or with similar food forests (*The Pollinators*). Both CSAs that were interviewed were also part of the CSA network, a platform for knowledge and resource sharing. In this sample, cross-domain partnering was rare, with the only example being the organizations that have settled in the park from *NoordOogst*. These are enabled and encouraged to collaborate, creating a synergy in the park between for instance the local coffee brewery and local pig farmer. All six LFIs had running partnerships with organizations that did not necessarily have a sustainability focus. This mostly led to partnerships with organizations like social initiatives (food banks), schools and colleges, and governments within and outside of the region. *The Pollinators* and *Boeren van Amstel* both also had more commercial partners such as banks and commercial organizations, for smaller, singular projects.

Interviewees identified a diverse set of reasons for partnering. Most find that partnering helps in knowledge exchange, which can also be a reason why there is less partnering with organizations that are not part of the same domain. Partnering can be in a multitude of forms; platforms such as the CSA Network create a large network of knowledge exchange, joint activities or events (*The Pollinators*), and informal knowledge sharing, e.g. *NoordOogst* promoting the partnering of LFIs not in the same domain is in the name of better social cohesion in the park and to fuel diffusion and education within the park and the visitors they have. This partnering is enabled because they have many smaller initiatives located in the same park, something that is not usual in the city region. Partnering with organizations that are not mainly sustainability-focused can be done to passively create awareness to a wider public. Partnering with for example a school creates a dialogue around local food amongst an audience that is not often in contact with the topics of local food or food supply and partnering with a local food bank creates opportunities for people outside of the target audience to gain access to local food and creates social cohesion within the community.

Partnering with other LFIs is mostly done with LFIs close by, for solving short-term problem solving and leads to more social cohesion. By creating partnerships with social organizations such as food banks or people with a labor market disadvantage, the LFIs are creating a social impact on top of the sustainable impact their locally grown food has. Partnering overall seems to impact all scales of a city region, creating a network between different LFIs and organizations to wider spread the message of local food and sustainability and share knowledge between actors.

Upscaling

In general, identifying evidence of upscaling proved challenging as most LFIs did not track their progress using quantitative indicators (i.e. members, users, or supporters over time). The LFIs that could and did track the number of members over the year (*Vers aan de Vecht* and *De Stadsgroenteboer*), both show growth in the number of members. *Vers aan de Vecht* went from 100 members at the start of 2021 to 150 members this year. *De Stadsgroenteboer* has been around for longer, starting with 35 members five years ago, having doubled this the next year, and now starting this season with 200 members already. They have become so popular that they are at capacity but do add in extra spots when they have a good harvest. *Voedseltuin IJplein* is also not allowing everyone who applies to volunteer for their garden anymore, as too many volunteers also create time management problems. Findings do show that most interviewees do not strive for upscaling but would rather see for instance more *outward replication* (*The Pollinators* and *Boeren van Amstel*), professionalizing and specializing (*The Pollinators* and *Vers aan de Vecht*), or even creating a cooperative (*The Pollinators* and *De Stadsgroenteboer*). *Voedseltuin IJplein* stated that they are in a good state right now and are not actively looking for much change, and *NoordOogst* is busy with making sure the project can continue after 2026 when their permit stops. *De Stadsgroenteboer* also states that while they have grown over the years and might get opportunities to do so in the future, they must ask themselves if that is the goal for their LFI since growing also means having less connection to the other farmers and being more focused on output. When asked about upscaling and the future of the LFIs, two out of six also mentioned they wanted to further increase diversity within the LFI.

All interviews considered; the impression is that the growth of members is not a priority in most cases. It seemed that most interviewees just have a passion for local food or farming, which does not translate directly to increasing the yield or members. It rather leads to a more passive way of growth (i.e. more harvest is yielded than expected, so more members are necessary to avoid unnecessary waste) and as mentioned, several LFIs have reached a limit to the growth in members. Another reason for this is that while traditional food suppliers count on harvest for profit, most of the interviewed LFIs are not-for-profit or have profit as a secondary priority. The ulterior ideas the LFIs mentioned instead of upscaling, are more focused on creating a better internal structure and collaboration, which is about strengthening their own capabilities instead of growing out of them. As mentioned in the *replication* sub-heading, *outward replication* was named twice as an alternative to upscaling, where knowledge gathered in the first project would be used to create new installations of the same businesses. For example, *Boeren van Amstel* sees that upscaling their business cannot reach full potential since the business is already quite locked in, but duplicating and improving this process in different areas has more potential in creating more impact and change. Due to the lack of quantitative data, it is not possible to assess the overall impact of upscaling. For the two LFIs that did indicate numbers of members, both had a substantial increase in members over the years of their LFI, with *De Stadsgroenteboer* even having a waitlist for new members. The mechanism appears to be more secondary to the LFIs than other mechanisms, using it more as a descriptive factor of numbers than as a goal of the LFI.

Instrumentalizing

Most of the LFIs have been able to draw in some type of support and resources, made available by external actors. For example, *Vers aan de Vecht* received a grant from *Amsterdam Begroot* to create more opportunities for people with fewer resources to still partake in the garden, and *The Pollinators* used crowdfunding together with 53 other food forests to really accelerate the movement. Unfortunately, five out of six LFIs note issues in the way the government handles their subsidies and permits, with *Voedseltuin IJplein* stating that they have the privilege to no longer rely on government subsidies because these subsidies are hard to apply to and bring a multitude of problems with them. The second indicator, *capitalizing opportunities*, was only identified once during interviews. *Boeren van Amstel* notes that the restaurants where their milk is sold, are restaurants that already have a goal to use more local products. They know their market very well and play into this as well, so this can be seen as an example of *capitalizing opportunities*. Consumers are partaking in the LFIs because of a multitude of sustainability and socially related reasons (i.e. being part of a community, wanting more local and honest food), but the LFIs have not noted that they are actively using this trend to garner more attention.

Interviews have shown that each LFI interviewed has been capable of receiving funds from either the government, municipality, or smaller sustainability grants. The LFIs were thus successful in instrumentalizing opportunities which allowed them to receive resources to further their mission and goals. Resources made available by the government or municipality were harder to gain access to since the government requires a list of criteria that most LFIs cannot provide in the beginning stages of their organization. Three LFIs do mention that when an LFI is more established and knows how to network effectively, receiving grants from for instance municipalities is easier because they know what to expect. This not only hinders the innovation and diversity of LFIs within the AMA but also creates a negative sentiment for collaboration with the municipality. *Voedseltuin IJplein* already stopped using municipality funds, to the surprise of the municipality themselves and *De Stadsgroenteboer* states that most farmers do not create their LFI for networking but for farming. Being dependent on networking to be able to further the LFIs goal is counterintuitive for most. An explanation for the fact that *capitalizing opportunities* did not arise much during the interviews could be that the LFIs spoken to are not actively using larger events to garner more attention to their own LFI, but rather want to keep it in their own community. Within a community, which is much smaller, the LFIs are mostly well-known already, and interested people find the LFI themselves instead of the LFI reaching out through opportunities from rising trends. *Boeren van Amstel* explained that they do want to reach that large audience, so *capitalizing on opportunities* is necessary to guarantee this reach.

The impact of instrumentalizing is the fact that all LFIs were able to *mobilize resources* and thus creating more opportunities for themselves to further develop their organization and strengthen their position in the AMA. *Capitalizing opportunities* was only seen once, with the organization that can be seen as the most commercial LFI of the interviewees. The impact of this is therefore limited, but for *Boeren van Amstel* it does create opportunities to get the ball rolling locally.

Embedding

Both indicators for embedding, *routinization* and *institutionalization*, were found in the interviewees, but on a lower scale than the other mechanisms. LFIs are clearly showing that sustainable ways of food are viable and creating a learning environment around it. Interviewed LFIs with yearly subscriptions see that up to 80 percent of previous consumers come back to the LFI the next year. The fact that the government is creating a new food strategy focused on local food is also an indicator of routinization happening around the AMA. Next to this, two out of six LFIs, *Voedseltuin IJplein* and *NoordOogst*, have succeeded in aligning practices, goals, and agendas between them and the government. They both state that the government recognizes their activities and the positive impact it has on the community in Amsterdam, and therefore are taken seriously when new plans from the municipality arise. *Voedseltuin IJplein* has been used as a model for a multitude of different projects in the AMA. As mentioned in the *instrumentalizing* section, the relationship between most interviewed LFIs and the government is difficult and uncertain, which does mean that they are less aligned with their practices, goals, and agendas.

All in all, *embedding* and especially *institutionalizing* got a mixed response from interviews. LFIs recognize that the government is an important actor within the city and embedding creates legitimacy and enables resources, but embedding also leads to putting the city's goals over the LFI's own goals. *The Pollinators* explain that when applying for a grant or permit, a business plan is needed that exceeds their planning and goals by multiple years, something that is not only almost impossible but also leads to giving up the piece of freedom that many people establish a LFI for. The other side of the story is from *Voedseltuin IJplein* and *NoordOogst*, which have embedded themselves and are now collaborating closely with the municipality and can create more impact with their LFIs. But even these two LFIs state that the municipality is not open and transparent enough to the initiatives that are starting out, creating a higher threshold for starting a LFI than deemed necessary. *Routinization* is also happening mostly through the initiatives that are embedded since they get promoted more by the municipality and are used as a model or pilot for new showcase projects.

In Amsterdam, embedding leads to anchoring sustainability in the local government structures via *institutionalization* and *routinization*. The LFIs are slowly shaping government policy in favor of local food practices, by being model LFIs and showing the positive impact that an LFI can make on the community and city region.

5.3 Combining Desk Research and Interviews

All interviewees were assessed to be just LFIs by **step 1** of the research. They had varying amounts of identified indicators for justice, but in both desk research and interviews they showed they had inherent ideas, missions, and visions rooted in justice. Interestingly is that while the justice-related questions in the interviews gathered interesting insights, more just activities arose when the interviewees were talking about the different acceleration concepts, showing that these two concepts are often aligned. For example, *Boeren van Amstel* stated they would like to partake in *outward replication* because they want to create more protected farmer areas, combining both *replication* and *ecology & non-human beings*. Another example is *Voedseltuin IJplein* wanting to create social cohesion and thus *partnering* with food banks, which leads to them *actively contributing* to the bettering of living conditions of many different people in the neighborhood. This combines the mechanism of *partnering* together with *restorative* and *recognitional* justice. Many examples of this can be found in the interviews and this shows the connection between both concepts, where LFIs are not only creating a business around local food but are using this business to create a just environment within the traditional food system.

6. Discussion

This section aims to discuss the findings presented in Section 5. First, theoretical and methodological implications are discussed, followed by some limitations faced and recommendations for future research.

6.1 Theoretical Implications

This section aims at discussing both the scientific and societal implications of this thesis, showing how it extends current theoretical insights, linking back to the knowledge contribution in the introduction.

6.1.1 Scientific Implications

This study's narrative offers new insights by introducing a social dimension to the concept of local agriculture, which is particularly significant with the current surge in interest in local food (Kang et al., 2022). The sustainability challenge of alternative food systems requires transition literature to evaluate not only technical aspects but to conceptualize social justice to evaluate the impact of these initiatives (Bui et al., 2019). This study shows justice as an inherent quality of LFIs and its role in the transition towards an alternative food system since the majority of LFIs in the AMA implicitly pursue justice as their main goal. Justice allows transition and local food literature to recognize that the social dimension holds equal importance for LFIs as the production of local food. This social dimension plays a vital role in the success of the majority of LFIs analyzed, creating innovations and impact together and for their communities.

Additionally, this study encompasses not only the commonly used social justice concepts, such as distributive and procedural justice but creates a larger framework, encompassing several different types of justice (Hinrichs & Allen, 2008; DuPuis et al., 2011). By considering the types of justice that are normally excluded (*recognitional, ecology & non-human beings, anticipation & reflexivity*), this study takes on a fuller conceptualization of justice and extends the understanding of justice in local food literature. This conceptualization enables a more comprehensive examination of LFIs and highlights the diverse ways LFIs are using justice in their communities. This creates more legitimization for the LFIs to highlight their efforts in justice, with dimensions that currently have insufficient recognition. The diverse range of justice perspectives adopted for this thesis helps explain this variation in outcomes observed compared to critics (DuPuis et al., 2011). This also serves as a response to critics within local food theory who raise concerns about the idealization of justice. This conceptual framework on justice has the potential to be applied in various settings and at different scales, enabling the assessment of justice in a wide range of issues and opportunities.

The conceptual framework used within this research seems to effectively highlight the mechanisms described by Gorissen et al. (2018) in the LFIs. Furthermore, the findings highlight the perspective on how just local food initiatives, which do not prioritize conventional growth, can still increase their overall impact. The findings of this study affirm

that the traditional concept of upscaling, involving the expansion of members, customers, and profit (as described by Gorissen et al., 2018), does not often apply in the local context of LFIs. Prior insights showed *upscaling* as a mechanism for LFIs because the mechanism identified bottom-up indicators, but it seems that most LFIs do not identify with this mechanism. The point of view of the results relates more to the alternative narrative of outscaling, which entails recreating and reconfiguring the most promising activities across contexts (Lampinen, 2019). The results showed that while *upscaling* is not entirely absent, it appears to occur more because of coincidence rather than being a deliberate priority.

As explained in Section 5.3, findings suggest a new perspective on the interconnection of the concepts of justice and acceleration within the LFIs studied. Rather than treating these two concepts as distinct entities, this study creates the perspective of an in-depth study that examines them together. This integrated and multifaceted approach leads to a clearer understanding of social and sustainable practices within the LFIs, together with the larger positive impact they can create on the food system. This study suggests the prioritization of the social dimension to transition literature significantly influences the way LFIs strive for transition and acceleration. Understanding the connection between transition literature and environmental justice literature showcases the intent and possibilities of LFIs to create a larger movement of just organizations by using acceleration.

6.1.2 Societal Implications

Perrin et al. (2020) suggest that LFIs are often idealized and not inherently socially just. This thesis showcases that this assumption for LFIs in the AMA is untrue, as these initiatives exhibited a significant commitment to justice towards consumers and in their operational practices. These findings show the positive impact just LFIs have on their surrounding communities, providing a clear depiction of how these LFIs incorporate justice within their organization. This depiction creates a clearer understanding for both consumers, policymakers, and LFIs, offering valuable insights into the subject matter.

For consumers, this thesis offers detailed knowledge about the social practices of LFIs in their community, effectively showcasing the current positive impact these LFIs are generating. This knowledge empowers consumers to make informed choices, enabling them to actively support and engage with LFIs that align with their values and continue to contribute to positive social and environmental change. It also fosters a sense of community involvement and connection as consumers recognize the benefits of supporting these just LFIs, which is inherently valuable for the impact and transition of these just LFIs (Van den Heiligenberg et al., 2017). This builds trust and legitimacy for the LFIs, creating a pathway for continued impact and strengthening the viability of the organization.

For policymakers, this study provides extensive knowledge to continue and improve their support to incentivize local initiatives. It showcases the need for enhanced support for LFIs, to further enable the creation of just, positive impacts by LFIs (Van den Heiligenberg, 2017). One approach to achieving this is by establishing a collaborative network that brings together

embedded LFIs, consumers, entrepreneurs, and local governments. The findings show that through collective efforts, such a network has the potential to create a supportive ecosystem that encourages the establishment and success of new LFIs, ultimately contributing to the expansion and advancement of the local food movement (Laforge et al., 2016). This study suggests that developing a deeper understanding of the dynamics between policymakers and LFIs will assist policymakers to create effective strategies to realize more sustainable and equitable food systems. This support also enhances the ability of LFIs to accelerate their organization, furthering the potential of creating an alternative food system.

For LFIs or aspiring LFIs, this thesis provides a comprehensive overview of the opportunities and challenges that may arise or have emerged in their pursuit of promoting more local food. It showcases the impact a social dimension such as justice can have on the effectiveness of the LFI, enhancing their ability to promote inclusivity and create meaningful and long-lasting change within their communities. The findings showcase that addressing justice as an LFI creates the potential for equity within an alternative food system (Allen, 2010). The findings further highlight how acceleration can empower LFIs to generate long-lasting positive impacts without succumbing to the conventional practices of the traditional food system. They demonstrate that LFIs can achieve meaningful progress while maintaining their commitment to justice, sustainability, and community engagement.

6.2 Limitations

This study faced some limitations in the way the data was collected since the preferred method of data collection was not achieved, as explained in Section 4. The intended selection of cases based on the criteria outlined in the methodology proved unattainable. LFIs that were reached out based on these criteria did not have the time for other activities except their own, for multiple given reasons. The majority of LFIs were preoccupied with the harvesting season and experienced staff shortages since the months chosen for the interviews aligned with the busier period of farming. While the final selection of LFIs still offers interesting insights for this thesis, it is believed that a larger and more specific data collection could offer even more relevant results.

Furthermore, data collection through an online presence gives a good impression of the activities of a LFI but does not provide a comprehensive overview of the just goals pursued by the initiatives. While an online presence can offer visibility into the activities and products of a LFI, it may not always reveal the underlying motivations, long-term objectives, or specific strategies employed by the initiative. Moreover, the assessment of justice could have been biased since it entailed a quantitative approach to online research, trusting that information is interpreted the same in all 67 cases. The interviews partially mitigated this bias as they provided evidence that the identified dimensions and indicators were indeed valid. Ensuring a decent number of interviews with a diverse set of types of LFIs made it possible to mitigate this bias to an extent.

6.3 Recommendations for Further Research

Building on the conceptualization of just innovations to LFIs, this research gave a detailed overview of how justice is addressed in LFIs in the Amsterdam Metropolitan Area (AMA). For the justice conceptualization, additional research could be conducted to explore the underlying factors that lead to the exclusion of certain dimensions in the LFIs. One area of focus could involve delving deeper into the rationale behind the limited presence of *procedural justice*, a traditional justice concept, in the LFIs. Moreover, the mechanisms of Gorissen et al. (2018) created a detailed overview of acceleration for small-scale initiatives, but further research is needed to apply this framework to initiatives that do not prioritize *upscaling*. For example, incorporating the concept of “outscaling” can provide further insight into this matter (Lampinen et al., 2019). Furthermore, further insight into the networks and collaborations created between the LFIs within regions would provide a more detailed overview of the inner workings of just LFIs and the connections fostered within the LFI community. This network could also entail policymakers and consumers, to create a broad overview of activities in a region. This perspective could also shed light on the government’s role within these networks. Ultimately, similar research can be conducted over the years to analyze how LFIs are evolving in the Amsterdam region and how the just characters of these LFIs develop.

7. Conclusion

This research aimed to give insight into how local food initiatives (LFIs) in the Amsterdam Metropolitan Area (AMA) pursued justice. Next to this, those LFIs that pursued justice have been further analyzed to map their acceleration efforts. The information gathered through the desk research and interviews led to the answer to the main research question “How can just local food initiatives in the Amsterdam Metropolitan Area be accelerated to transform the current Dutch food system?”.

The results of this thesis show that the majority of LFIs in the AMA pursue justice alongside their commitment to producing and promoting local and sustainable food. Additionally, the findings gave interesting insights into how these just LFIs in the AMA can be accelerated and identified the absence of certain mechanisms that hinder this acceleration. The results suggest that the *replication* and *partnering* phase, as identified by Gorissen et al. (2018), are the most prominent mechanisms in just LFIs. In these phases, the LFIs are generating an impact not only on their community but also on other LFIs. By working collectively, they are demonstrating the viability of local food as a sustainable approach to food production. It is therefore important to foster these relationships to ensure their success in long-term connections and networks.

The results suggest a misalignment between the perspectives of most LFIs and the mechanisms proposed by Gorissen et al. (2018), regarding the importance and prioritization of *upscaling*. It is seen as a difficult or unnecessary process, which can hinder the ability of the LFIs to create genuine connections within the community, a central goal within the LFIs in the AMA. LFIs rather focus on the other mechanisms proposed by Gorissen et al. (2018). The absence of *upscaling* in the findings once again showcases the importance of *replicating* and *partnering*, with LFIs rather working towards outscaling than *upscaling*.

Ultimately, findings show that the primary obstacle for LFIs in the AMA stems from the current practices of local municipalities. Both *instrumentalization* and *embedding* mechanisms are partially absent in the researched LFIs, primarily due to the absence of guidance and targeted support from the municipalities. Current strategies are too focused on well-established initiatives, overlooking the potential of emerging and local LFIs. This creates a negative connotation between LFIs and the local municipality, while this collaboration is inherent in the *instrumentalization* and *embedding* phase of LFIs. Local governments should reevaluate the exact role they wish to embody and advance by following the advice of LFIs that have reached the *embedding* phase, who are eager to help and contribute. By leveraging the knowledge and experiences of these LFIs, municipalities can effectively move forward in enhancing their support and engagement with LFIs. LFIs are also not yet effectively *capitalizing on opportunities*, not because of a misalignment of goals but rather due to the prioritization of other factors and mechanisms. If *embedding* is a goal for the LFI, this should garner more prioritization since it can prompt municipalities to shift their focus toward the LFIs.

The agri-food sector in the Netherlands is undergoing a public debate concerning the future and viability of farming. This research has contributed to the knowledge of the just and local farmer and their ability to create an impact on the traditional agri-food system. Therewith, it has provided an analysis of the implications of accelerating LFIs in the Amsterdam Metropolitan Area for the provision of just and local food and revealed the potential these LFIs and their communities can have to justly transform the current Dutch food system.

Bibliography

- Abatekassa, G., & Peterson, H.C. (2011). Market Access for Local Food through the Conventional Food Supply Chain. *International Food and Agribusiness Management Review*, 14(1), 63-82.
- Albrecht, C., & Smithers, J. (2018). Reconnecting through local food initiatives? Purpose, practice and conceptions of 'value'. *Agriculture and Human Values*, 35, 67-81.
- Alkon, A.H. (2008). From Value to Values: Sustainable Consumption at Farmers Markets. *Agriculture and Human Values*, 25(4), 487-498.
- Allen, P. (2010). Realizing justice in local food systems. *Journal of Regions, Economy and Society*, 3, 295-308.
- Allen, P., FitzSimmons, M., Goodman, M., & Warner, K. (2003). Shifting plates in the agrifood landscape: the tectonics of alternative agrifood initiatives in California. *Journal of Rural Studies*, 19, 61-75.
- Asebo, K., Jervell, A.M., Lieblein, G., Svennerud, M., & Francis, C. (2007). Farmer and Consumer Attitudes at Farmers Markets in Norway. *Journal of Sustainable Agriculture*, 30(4), 67-93.
- ATTRA. (2008). *Food miles: Background and Marketing*. Retrieved May 6, 2023, from <http://kapost-files-prod.s3.amazonaws.com/kapost/514a3bffc5a3a702000010b8/studio/content/5ecff6ec383d31014209573c/attachments/1590757713-56b2ec59-9077-4bbc-92d6-e79986457a23/foodmiles.pdf>.
- Augenstein, K., Bachmann, B., Egermann, M., Hermelingmeier, V., Hilger, A., Jaeger-Erben, M., Kessler, A., Lam, D.P.M., Palzkill, A., Suski, P., & Von Wirth, T. (2020). From niche to mainstream: the dilemmas of scaling up sustainable alternatives. *GALA*, 143-147.
- Bapir, M.A. (n.d.) *Is it possible for qualitative research to be properly valid and reliable?* [Unpublished essay]. The University of Warwick.
- Bianchi, C., & Mortimer, G. (2015). Drivers of local food consumption: a comparative study. *British Food Journal*, 117(9), 2282-2299. <https://doi.org/10.1108/bfj-03-2015-0111>
- Bryman, A. (2016). *Social Research Methods*, (5th ed.) Oxford: Oxford University Press.
- Butler, L.M. & Carkner, R. (2001) In C. Flora (Ed.), *Interactions between Agroecosystems and Rural Communities* (pp. 157-173). CRC Press.
- Bui, S., Costa, I., De Schutter, O., Dedeurwaerdere, T., Hudan, M., & Feyereisen, M. (2019). Systemic ethics and inclusive governance: two key prerequisites for sustainability transitions of agri-food systems. *Agriculture and Human Values*, 36, 277-288.
- Caalders, J. D. A. D., Nigten, A. O., & Laro, J. (2009, December). *Dichterbij: over regionalisering van voedselketens en een grotere rol voor de consument*. <https://library.wur.nl/WebQuery/wurpubs/reports/387582>
- Chataway, J., Hamlin, R., & Kaplinsky, R. (2013). Inclusive innovation: An architecture for policy development. *Innovation and Development*, 4, 33-54.
- Clancy, K., & Ruhf, K. (2010). Is Local Enough? Some Arguments for Regional Food Systems. *Choices. The Magazine of Food, Farm, and Resources Issues*, 25(1), 1-5.
- Clapp, J. (2016). *Food* (2nd ed.). Polity Press.
- Clapp, J. (2021). The problem with growing corporate concentration and power in the global food system. *Nature Food*, 2(6), 1-5.
- Coley, D., Howard, M.E., & Winter, M. (2009). Local food, food miles and carbon emissions: A comparison of farm shop and mass distribution approaches. *Food Policy*, 34(2), 150-155. <https://doi.org/10.1016/j.foodpol.2008.11.001>
- DuPuis, E.M., Harrison, J.L., & Goodman, D. (2011). Just food? In: Alkon, A.H. & Agyeman, J. (Eds.) *Cultivating Food Justice: Race, Class, and Sustainability*. (pp. 283-307). MIT Press.

- Eigeman, J. (2021, April 30). *Groen in de stad kan ook economisch interessant zijn*. Nieuwe Oogst. <https://www.nieuweoogst.nl/nieuws/2021/04/30/jean-eigeman-groen-in-de-stad-kan-ook-economisch-interessant-zijn>
- Feagan, R. (2007). The place of food: mapping out the 'local' in local food systems. *Progress in Human Geography*, 31(1), 23-42.
- Foster, C., & Heeks, R. (2013). Conceptualising Inclusive Innovation: Modifying Systems of Innovation Frameworks to Understand Diffusion of New Technology to Low-Income Consumers. *European Journal of Development Research*, 25(3), 333-355.
- Frantzeskaki, N., & de Haan, H. (2009). Transitions: two steps from theory to policy. *Futures*, 42, 593-606.
- Geels, F.W. (2002). Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. *Research Policy*, 31, 1257-1274.
- Gemeente Amsterdam. (n.d.). *Voedselstrategie*. Retrieved April 10, 2023, from <https://www.amsterdam.nl/wonen-leefomgeving/duurzaam-amsterdam/voedselstrategie/#hdff6f297-8517-42fa-a56f-48f9601db9f7>
- Gorissen, L., Spira, F., Meynaerts, E., Valkering, P., & Frantzeskaki, N. (2018). Moving towards systemic change? Investigating acceleration dynamics of urban sustainability transitions in the Belgian City of Genk. *Journal of Cleaner Production*, 173, 171-185.
- Grin, J., Rotmans, J., & Schot, J. (2010). *Transitions to Sustainable Development - New Directions in the Study of Long Term Transformative Change*. Routledge, New York.
- Hermans, F., Roep, D., & Klerkx, L. (2016). Scale dynamics of grassroots innovations through parallel pathways of transformative change. *Ecological Economics*, 130(C), 285-295.
- Herrero, M., Thornton, P.K., Mason-D'Croz, D. Palmer, J., Benton, T.G., Bodrisky, B.L., Bogard, J.R., Hall, A., Lee, B., Nyborg, K., Pradhan, P., Bonnett, G.D., Bryan, B.A., Campbell, B.M., Christensen, S., Clark, M., Cook, M.T., de Boer, I.J.M., Downs, C., ... West, P.C. (2020) Innovation can accelerate the transition towards a sustainable food system. *Nature Food*, 1(5), 266-272.
- Hinrichs, C.C. & Allen, P. (2008). Selective Patronage and Social Justice: Local Food Consumer Campaigns in Historical Context. *Journal of Agricultural and Environmental Ethics*, 21, 329-352.
- Holtslag, W. (2010). *Planning for (local) food systems: Understanding the development of local food chains in the Dutch context*. <https://edepot.wur.nl/165002>
- Ishii-Eiteman, M. (2009). Reorienting Local and Global Food Systems. In J. Clapp & M.J. Cohen (Eds.), *The Global Food Crisis: Governance Challenges and Opportunities (Studies in International Governance)* (pp. 217-235). Wilfrid Laurier University Press.
- Jarzębowski, S., Bourlakis, M., & Bezat-Jarzębowska, A. (2020). Short Food Supply Chains (SFSC) as Local and Sustainable Systems. *Sustainability*, 12(11), 4715. <https://doi.org/10.3390/su12114715>
- Kalfagianni, A., & Skordili, S. (2020). *Localizing Global Food: Short Food Supply Chains as Responses to Agri-Food System Challenges*. Routledge.
- Kang, H., Roggio, A.M., & Luna-Reyes, L.F. (2022). Governance of local food systems: Current research and future directions. *Journal of Cleaner Production*, 338.
- Kemp, R., & Loorbach, D. (2003). *Governance for Sustainability Through Transition Management* [Paperpresentation]. EAEPE 2003, Maastricht, the Netherlands.
- Kneafsey, M., Venn, L., Schmutz, U., & Balázs, B. (2013). Short Food Supply Chains and Local Food Systems in the EU. A state of Play of their Socio-Economic Characteristics. *JRC scientific and policy report*, 123.

Laforge, J.M.L., Anderson, C.R., & McLachlan, S.M. (2016). Governments, grassroots, and the struggle for local food systems: containing, coopting, contesting and collaborating. *Agriculture and Human Values*, 34, 663-681.

Lampinen, A., Rossitto, C., & Gradin Franzén, C. (2019). Scaling Out, Scaling Down: Reconsidering growth in grassroots initiatives. In Travlou, P. & Ciolfi, L. (Eds.), *Ethnographies of Collaborative Economies Conference Proceedings*. (Paper no. 2). University of Edinburgh.

Local2Local. (n.d.-a) *Over ons – visie en missie*. <https://local2local.nl/over-ons/visie-en-missie>

Local2Local. (n.d.-b). *Collectief van 400 boeren zet Zuidas op zijn kop - Let's get Local*. <https://www.letsgetlocal.nl/nieuws/collectief-van-400-boeren-zet-zuidas-op-zijn-kop/>

Ludwig, D., & Macnaghten, P. (2020). Traditional ecological knowledge in innovation governance: a framework for responsible and just innovation. *Journal of Responsible Innovation*, 7(1), 26-44.

Lund, M. (2012). Multi-stakeholder Co-operatives: Engines of Innovation for Building a Healthier Local Food System and a Healthier Economy. *Journal of Co-operative Studies*, 45(1), 32-45.

Malak-Rawlikowska, A., Majewski, E., Was, A., Borgen, S.O., Csillag, P., Donati, M., Freeman, R.B., Hoang, V.T., Lecoœur, J., Mancini, M.C., Nguyen, A., Saïdi, M., Tocco, B., Török, A., Veneziani, M., Vittersø, G., & Wavresky, P. (2019). Measuring the Economic, Environmental, and Social Sustainability of Short Food Supply Chains. *Sustainability*, 11(15), 4004. <https://doi.org/10.3390/su11154004>

Markard, J., & Truffer, B. (2008). Technological innovation systems and the multi-level perspective: Towards an integrated framework. *Research Policy*, 37, 596-615.

Marsden, T., Banks, J. & Bristow, G. (2000). Food Supply Chain Approaches: Exploring their Role in Rural Development. *Sociologia Ruralis*, 40(4), 424-438.

Marsden, T., Banks, J. & Bristow, G. (2002). The Social Management of Rural Nature: Understanding Agrarian-Based Rural Development. *Environment and Planning A*, 34, 809-825.

Mason, J. (2002). *Qualitative Researching* (2nd ed.). Sage Publications.

Martinez, S. (2010). *Local Food Systems: Concepts, Impacts, and Issues*. Department of Agriculture, Economic Research Service.

Mehrabi, S., Perez-Mesa, J.C. & Giagnocavo, C. (2022). The Role of Consumer-Citizens and Connectedness to Nature in the Sustainable Transition of Agroecological Food Systems: The Mediation of Innovative Business Models and a Multi-Level Perspective. *Agriculture*, 12(2), 203. <https://doi.org/10.3390/agriculture12020203>

Meerburg, B.G., Korevaar, H., Haubenhöfer, D.K., Blom-Zandstra, M., & Van Keulen, H. (2009) The changing role of agriculture in Dutch society. *The Journal of Agricultural Science*, 147(5), 511-521.

Morelli, J. (2011). Environmental sustainability: a definition for environmental professionals. *Journal of Environmental Sustainability*, 1, 1-9.

Morris, C., & Buller, H. (2003). The local food sector: A preliminary assessment of its form and impact in Gloucestershire. *British Food Journal*, 105(8), 559-566.

Ness, D.V.W., & Strong, K.H. (2014). *Restoring justice: An Introduction to Restorative Justice* (5th ed.). Anderson.

OAK & Strootman Landschapsarchitecten. (n.d.). *De Groene Stelling*. <https://www.metropoolregioamsterdam.nl/wp-content/uploads/2022/04/Bijlage-4a-Concept-Brochure-De-Groene-Stelling.pdf>

Obdeijn, L. (2020, October 30). *Over tien jaar is 25 procent van ons eten lokaal, is het plan*. Het Parool. Retrieved April 12, 2023, from <https://www.parool.nl/amsterdam/over-tien-jaar-is-25-procent-van-ons-eten-lokaal-is-het-plan~bb2816aa/?referrer=jtpts%3A%2F%2Fwww.google.nl%2F>

- O'Hara, S.U. & Stagl, S. (2001). Global Food Markets and Their Local Alternatives: A Socio-Ecological Economic Perspective. *Population and Environment*, 22(6), 533-554.
- Partzsch, L. (2020). Food localization and agency. In A. Kalfagianni & S. Skordili (Eds.), *Localizing Global Food: Short Food Supply Chains as Responses to Agri-Food System Challenges* (pp. 55-70). Routledge.
- Pearsall, H., & Pierce, J. (2010). Urban sustainability and environmental justice: evaluating the linkages in public planning/policy discourse. *Local Environment*, 15(6), 569-580.
- Perrin, C., Valette, E., & Cerdan, C. (2020). Social justice in the market place. The renewal of peri-urban open-air food markets around Montpellier, France. In A. Kalfagianni & S. Skordili (Eds.), *Localizing Global Food: Short Food Supply Chains as Responses to Agri-Food System Challenges* (pp. 157-175). Routledge.
- Pollan, M. (2006). *The Omnivore's Dilemma: A Natural History of Four Meals*. The Penguin Press.
- Pradhal, P., Kriewald, S., Costa, L., Rybski, D., Benton, T.G., Fischer, G., & Kropp, J.P. (2010). Urban Food Systems: How Regionalization Can Contribute to Climate Change Mitigation. *Environ. Sci. Technol*, 54(17), 10551-10560.
- Quaye, W., Jongerden, J., Essegbey, G., & Ruivenkamp, G. (2010). Globalization vs. Localization: global food challenges and local solutions. *International Journal of Consumer Studies*, 34(3), 357-366.
- Rotmans, J., Kemp, R., & Van Asselt, M. (2001). More Evolution than Revolution: Transition Management in Public Policy. *Foresight*, 3(1), 15-31.
- Sacchi, G. (2019). Social innovation matters: The adoption of participatory guarantee systems within Italian alternative agri-food networks. *Briefings in Entrepreneurial Finance*, 28(4), 241-248.
- Schnell, S.M. (2013). Food miles, local eating, and community supported agriculture: putting local food in its place. *Agriculture and Human Values*, 30, 615-628.
- Sellberg, M.M., Norström, A.V., Peterson, G.D., & Gordon, L.J. (2020). Using local initiatives to envision sustainable and resilient food systems in the Stockholm city-region. *Global Food Security*, 24, 2020.
- Sengupta, P. (2016). How effective is inclusive innovation without participation? *Geoforum*, 75, 12-15.
- Schillo, R.S., & Robinson, R.M. (2017). Inclusive innovation in Developed Countries: The Who, What, Why and How. *Technology Innovation Management Review*, 7(7), 34-46.
- Schneider, S.A. (2009). Reconnecting Consumers and Producers: On the Path Toward a Sustainable Food and Agriculture Policy. *Drake Journal of Agricultural Law*, *Forthcoming*.
- Schot, J. & Kanger, L. (2018). Deep transitions: Emergence, acceleration, stabilization and directionality. *Research Policy*, 47(6), 1045-1059.
- Shimizu, H., & Desrochers, P. (2008). Yes We Have No Bananas: A Critique of the "Food Miles" Perspective. *Mercatus Policy Series*, 8. <https://doi.org/10.2139/ssrn.1315986>
- Steeghs, S. (2020, September 29). De groei van lokale en regionale initiatieven in diverse sectoren. www.cooperatie.nl.
- Stilgoe, J., Owen, R., and Macnaghten, P. (2013). Developing a Framework for Responsible Innovation. *Research Policy*, 42(9), 1568-1580.
- Suiseeya, K.R.M. (2014). *The Justice Gap in Global Forest Governance* [Unpublished doctoral dissertation, Duke University]. https://dukespace.lib.duke.edu/dspace/bitstream/handle/10161/9056/MarionSuiseeya_duke_0066D_12553.pdf?sequence=1&isAllowed=y
- Tribaldos, T. and Kortetmäki, T. (2022). Just transitions principles and criteria for food systems and beyond. *Environmental Innovations and Societal Transitions*, 43, 244-256.

Tschersich, J. & Kok, K.P.W. (2022) Deepening democracy for governance toward just transitions in agri-food systems. *Environmental Innovations and Societal Transitions*, 43, 358-374.

Turner, B. (2011). Embodied connections: sustainability, food systems and community gardens. *The International Journal of Justice and Sustainability*, 16, 509-522.

Van Amsterdamse Bodem. (n.d.) *Initiatieven*. Retrieved on 2023, April 12 from <https://vanamsterdamsebodem.nl/initiatieven/>

Van den Bosch, S., & Rotmans, J. (2008). *Deepening, Broadening and Scaling up*. Knowledge Centre for Sustainable System Innovations and Transitions.

Van den Heiligenberg, H.A.R.M., Heimeriks, G.J., Hekkert, M.P., & Van Oort, F.G. (2017). A habitat for sustainability experiments: Success factors for innovations in their local and regional contexts. *Journal of Cleaner Production*, 169, 204-215.

Van der Valk, A., Pineda Rivella, B., & Essbai, S. (2021). Voedselgemeenschappen in Amsterdam. Web publication or website, Rooilijn. <https://www.rooilijn.nl/artikelen/voedselgemeenschappen-in-amsterdam/>

Veldhuizen, L.J., Giller, K.E., Oosterveer, P., Brouwer, I.D., Janssen, S., van Zanten, H.H., & Slingerland, M. (2020). The Missing Middle: Connected action on agriculture and nutrition across global, national and local levels to achieve Sustainable Development Goal 2. *Global Food Security*, 24, 100336.

Verburg, R.W., Verberne, E., & Negro, S.O. (2022). Accelerating the transition towards sustainable agriculture: The case of organic dairy farming in the Netherlands. *Agricultural Systems*, 198, 103368.

Von Schomberg, R. (2013). A Vision of Responsible Research and Innovation. In: R. Owen, M. Heintz and J Bessant (eds.), *Responsible Innovation* (pp. 51-74). Wiley.

Wetenschappelijke Raad voor het Regeringsbeleid (WRR). (2014). *Naar een voedselbeleid*. Amsterdam University Press.

Whitfield, S., Apgar, M., Chabvuta, C., Challinor, A., Deering, K., Dougill, A., Gulzar, A., Kalaba, F., Lamanna, C., Manyonga, D., Naess, L.O., Quinn, C.H., Rosentock, T.S., Sallu, S.M., Schreckenberg, K., Smith, H.E., Smith, R., Steward, P., Vincent, K. (2021). A framework for examining justice in food system transformations research. *Nature Food*, 2, 383-385.

Appendices

Appendix I. Interview Guides

I.1 English Interview Guide

General

1. Could you tell me a bit about your organization in general and what your current activities are?
2. How many people are part of your organization as of now?
3. How many people do you estimate are currently in employment/in your community?

Replication of LFIs

4. Were you inspired by another (similar) organization to start your local food organization?
 - If yes, where were they situated?
 - If yes, do you think this has helped you creating your initiative? In what way?
5. Have you noticed an increase in your type of organization in the region and/or outside of the region?
 - For instance, have you been contacted by similar LFIs or people that have tried to start a similar organization?

Justice

6. Do you consider justice important in your organization?
 - If yes, how does your organization contribute to that?
7. Are there (just) activities you would like to do in your organization, but do not at this moment?
 - If yes, what is missing for these to be realised?
 - If yes, is there support needed for these to be realised?
8. Do you have a critical eye towards your own processes? (e.g. to ensure decisions are made justly and retracted when they are not working as wanted)

Partnering of LFIs (and justice)

9. Do you have other organizations (like yours) with whom you often collaborate? Local and/or bigger organizations?
 - Who are they/from which initiative are they?
 - How do you collaborate with each other?
 - Do you notice they consider justice important (too)?

Instrumentalizing & embedding

10. Do you receive support from an overarching organization, such as a municipality or government?
 - If yes, what kind of support? (Financial, resources, manpower)
 - Is this long-term or short-term support?
 - Has this support changed over the years?
11. Would you say that your organization is creating or has created a community (of returning people/customers)?

- Do you perhaps know the main reasons for people to join your community? (e.g. justice, sustainability, local support)
12. Do you actively look for people to join your organization/community?
- If yes, what kind of activities do you use for this?

Upscaling

13. How do you see your organization evolving in the future?
- Does this involve scaling up your organization in for instance members, activities, or outreach?
14. What would you need for your organization to evolve? (e.g. extra support from government, more people, more networking, more events etc.)

Finalizing

15. Is there anything you would like to add that we haven't discussed yet?
16. Can I contact you if I need clarification on what has been discussed during this interview?

I.II Dutch Interview Guide

Algemeen

1. Kunt u mij iets vertellen over uw organisatie in het algemeen en wat uw huidige activiteiten zijn?
2. Hoeveel mensen maken op dit moment deel uit van uw organisatie?
3. Hoeveel mensen schat u dat er momenteel bij de organisatie deel uit maken van de community?

Replicatie van LFI's

4. Werd u geïnspireerd door een andere (soortgelijke) organisatie om uw eigen bedrijf te starten?
 - Zo ja, waar waren ze gevestigd?
 - Zo ja, denkt u dat dit u heeft geholpen bij het opzetten van uw initiatief? Op welke manier?
5. Hebt u gemerkt dat uw type organisatie in de regio en/of buiten de regio is toegenomen?
 - Bent u bijvoorbeeld benaderd door soortgelijke LFI's of mensen die hebben geprobeerd een soortgelijke organisatie op te richten?

Eerlijkheid

In mijn thesis is naar voren gekomen dat lokale voedsel initiatieven meestal meer doen met rechtvaardigheid dan traditionele voedselbedrijven. Rechtvaardigheid in deze context is bijvoorbeeld het eerlijk betalen van de werknemers en transparante beslissingsprocessen.

6. Zouden jullie de organisatie beschrijven als een organisatie die gericht bezig is met rechtvaardigheid? En zo ja, op welke vlakken?
 - Zo ja, hoe draagt uw organisatie daaraan bij?
7. Zijn er (rechtvaardige) activiteiten die u in uw organisatie zou willen doen, maar op dit moment niet doet?

- Zo ja, wat ontbreekt er om deze te realiseren?
 - Zo ja, is er ondersteuning nodig om deze te realiseren?
8. Heeft uw organisatie een kritische blik op de eigen processen? (bv. om ervoor te zorgen dat beslissingen rechtvaardig worden genomen of worden ingetrokken wanneer ze niet werken zoals gewenst)

Partnering van LFI's (en justitie)

9. Heeft u andere organisaties waarmee u vaak samenwerkt? Lokale en/of grotere organisaties?
- Wie zijn ze/van welk initiatief zijn ze?
 - Hoe werken jullie met elkaar samen?
 - Merken jullie dat zij rechtvaardigheid (ook) belangrijk vinden?

Instrumentaliseren & inbedden

10. Krijgt u steun van een overkoepelende organisatie, zoals een gemeente of overheid?
- Zo ja, wat voor soort steun? (Financieel, middelen, mankracht)
 - Is dit ondersteuning op lange of korte termijn?
 - Is deze ondersteuning in de loop der jaren veranderd?
 - Zo nee, waarom niet?
11. Zou u zeggen dat uw organisatie een gemeenschap creëert of heeft gecreëerd (van terugkerende mensen/klanten)?
- Kent u misschien de belangrijkste redenen voor mensen om zich bij uw gemeenschap aan te sluiten? (bijv. rechtvaardigheid, duurzaamheid, lokale ondersteuning)
12. Gaat u actief op zoek naar mensen die zich bij uw organisatie/gemeenschap willen aansluiten?
- Zo ja, wat voor soort activiteiten gebruikt u hiervoor?
 - Zo nee, waarom niet?

Opschalen

13. Hoe zien jullie de organisatie zich in de toekomst ontwikkelen?
- Bijvoorbeeld opschaling van uw organisatie in bijvoorbeeld leden, activiteiten of bereik?
14. Wat zou u nodig hebben om uw organisatie te laten evolueren? (bijv. extra steun van de overheid, meer mensen, meer netwerken, meer evenementen, enz.)

Afronden

15. Is er iets dat u zou willen toevoegen dat we nog niet besproken hebben?
16. Kan ik contact met u opnemen als ik verduidelijking nodig heb over wat tijdens dit interview is besproken?

Appendix II. Consent Forms

Consent form - English

In this study we want to learn about the aspect of justice integrated in local food initiatives and next to this, we want to see how local food initiatives that have integrated justice into their practices, can be accelerated to transform the current Dutch food system.

Participation in this interview is voluntary and it is allowed to quit the interview at any time without giving a reason and without penalty. Your answers to the questions will be shared with the research team. We will process your personal data confidentially and in accordance with data protection legislation (the General Data Protection Regulation and Personal Data Act). Please respond to the questions honestly and feel free to say anything you like.

I confirm that:

- I am satisfied with the received information about the research;
- I have no further questions about the research at this moment;
- I had the opportunity to think carefully about participating in the study;
- I will give an honest answer to the questions asked.

I agree that:

- The data to be collected will be obtained and stored for scientific purposes;
- The collected research data can be shared and re-used by scientists to answer other research questions;

I understand that:

- I have the right to see the research report afterwards.

Do you agree to participate?

..... Yes No

Consent form – Dutch

In dit onderzoek willen we meer te weten komen over hoe rechtvaardigheid in lokale voedselinitiatieven naar voren komt, en daarnaast willen we te weten komen hoe lokale voedselinitiatieven die rechtvaardigheid meenemen in hun praktijk, geaccelereerd kunnen worden om het Nederlandse voedselsysteem te veranderen. Deelname aan dit interview is vrijwillig en het is toegestaan om op elk moment zonder reden en zonder boete te stoppen met het interview. Uw antwoorden op de vragen worden gedeeld met het onderzoeksteam. Wij zullen uw persoonsgegevens vertrouwelijk en in overeenstemming met de wetgeving inzake gegevensbescherming (de Algemene Verordening Gegevensbescherming en de Wet Persoonsgegevens) verwerken. Gelieve de vragen eerlijk beantwoorden en zeg gerust alles wat u wilt.

Ik bevestig dat:

- Ik tevreden ben met de ontvangen informatie over het onderzoek;

- Ik op dit moment geen verdere vragen over het onderzoek heb;
- Ik de gelegenheid heb gehad om goed na te denken over deelname aan het onderzoek;
- Ik een eerlijk antwoord zal geven op de gestelde vragen.

Ik ga ermee akkoord dat:

- De te verzamelen gegevens worden verkregen en opgeslagen voor wetenschappelijke doeleinden;
- De verzamelde onderzoeksgegevens kunnen worden gedeeld en hergebruikt door wetenschappers om andere onderzoeksvragen te beantwoorden;

Ik begrijp dat:

- Ik het recht heb om het onderzoeksrapport na afloop in te zien.

Gaat u akkoord met deelname?

..... Ja Nee

Appendix III. Overview of Interviews

Reference	LFI	Date	Interviewee
Interviewee 1	Vers aan de Vecht	10 May 2023	Founder and project leader
Interviewee 2	The Pollinators	11 May 2023	Events coordinator
Interviewee 3	De Stadsgroenteboer	22 May 2023	One of five founders
Interviewee 4	NoordOogst	30 May 2023	Projectcoördinator
Interviewee 5	Voedseltuin IJplein	3 June 2023	Board member
Interviewee 6	Boeren van Amstel	20 June 2023	CEO

Appendix IV. Desk Research - Raw Data

F2F LFIs		Distr.		Recog.		Proced.		Rest.		Eco.			Anti.		Refl.
		1	2	1	2	1	2	1	2	1	2	3	1	2	1
MOMA (more than milk amsterdam)	Sales directly	Y	Y			Y		Y	Y	Y	Y				
Zorgboerderij Hoogerlust	Sales directly	Y			Y				Y			Y			Y
Jara	Sales directly														
Geitenboerderij Ridammerhoeve	Sales directly				Y			Y		Y	Y				Y
Voedselbos Amsterdam Zuidoost	Sales directly									Y	Y				
Landgoed Rorik	Sales directly														
Voedseltuin IJplein	Sales directly			Y			Y	Y		Y	Y	Y			
50 50 Green Amsterdam	Sales directly			Y	Y		Y	Y	Y						
Velt Amsterdam	Sales directly				Y					Y	Y				
Oost Indisch Groen	Sales directly				Y		Y								
Vokomokum	Sales directly	Y	Y							Y					
Keen Greens	Sales directly														
Soeptuin Bredius	Sales directly				Y		Y	Y							
Voedselbos Hof van Acta	Sales directly		Y							Y	Y	Y			
The Pollinators	Sales directly	Y	Y	Y	Y		Y			Y	Y	Y	Y	Y	Y
Plukbos	CSA				Y										Y
De Groente Amsterdammer	CSA	Y	Y							Y		Y	Y		
Tuinen van Hartstocht	CSA	Y	Y		Y	Y				Y	Y	Y	Y		Y
Stadstuinderij NoordOogst	CSA				Y			Y							Y
Pluk! Groenten van West	CSA	Y	Y		Y							Y			
Stadsgroenteboer	CSA	Y	Y	Y		Y				Y	Y	Y			
Shaffy's tuin	CSA				Y		Y			Y	Y				
Moestuinvereniging Proefeiland	CSA				Y	Y	Y								
De Stadsboerderie	Farmer owned retail outlet														
De Herkomst	Farmer owned retail outlet	Y				Y						Y			
Ecologische Zorgboerderij de Boterbloem	Farm shop			Y	Y					Y	Y				
Fruittuin van Moerkerken	Farm shop							Y							
De Groene Griffioen	Farm shop					Y				Y		Y			
De Kaskantine	Farm shop			Y		Y	Y	Y	Y	Y					
Warmonderhof	Farm shop					Y				Y		Y			

Buurtboerderij Ons Genoegen	Farm shop				Y				Y						
Anna's Tuin en Ruigte	Farm shop						Y				Y				
Mini Rondeel	Farm shop	Y						Y	Y						
Kaasboerderij Geingenogen	Farm shop														
Fruittuin van West	(comm) PYO, farm shop				Y										
Wibauttuin	(comm) PYO						Y				Y				
De Brede Moestuin	(comm) PYO			Y			Y								
Buurttuin Transvaal	(comm) PYO														
Moestuin Evergreen	(comm) PYO				Y			Y							
River of Herbs	(comm) PYO						Y			Y	Y	Y			
Bloei en Groei	(comm) PYO				Y			Y	Y						
Voorbeeldige Voedseltuin	(comm) PYO				Y	Y									Y
De Tropentuin	(comm) PYO				Y		Y			Y	Y		Y		
Vers aan de Vecht	(comm) PYO			Y	Y					Y	Y			Y	Y
No Chateau stadswijngaard	(comm) PYO			Y	Y		Y							Y	Y
I can change the world with my two hands	(comm) PYO				Y		Y			Y					
Buurttuin Valentijn	(comm) PYO														
Vereniging Stadstuin Bos en Lommer	(comm) PYO			Y	Y	Y				Y	Y				
De Kas	Own restaurant														
Stadsboerderij Osdorp	Farm based hospitality				Y		Y								

SCP LFIs		Distr.		Recog.		Proced.		Rest.		Eco.			Anti.		Refl.
		1	2	1	2	1	2	1	2	1	2	3	1	2	1
Ons Verlangen	Sales to retailers							Y	Y						
Boeren van Amstel	Sales to retailers	Y	Y	Y			Y	Y		Y	Y	Y	Y	Y	
Buitengewone Varkens	Sales to retailers														
Slow Food Amsterdam	Sales to retailers	Y			Y					Y					
LocaLeaves	Sales to retailers		Y		Y					Y			Y		Y
Wim Bijma	Sales to retailers & restaurants			Y											
Mycophilia	Sales to restaurants										Y				
Boeren & Buren	Delivery schemes	Y	Y		Y	Y	Y								
Boeren voor Buren	Delivery schemes	Y	Y				Y	Y	Y			Y	Y		
Wild 'n Zilt	Delivery schemes			Y			Y							Y	

MS LFI		Distr.		Recog.		Proced.		Rest.		Eco.			Anti.		Refl.
		1	2	1	2	1	2	1	2	1	2	3	1	2	1
NoordOogst	Foundation		Y		Y										
Voedsel Verbindt	Cooperative			Y		Y	Y							Y	
Biopolder Lutkemeer*	Cooperative	Y	Y	Y	Y	Y				Y	Y	Y			
Wij.land	Cooperative	Y	Y	Y		Y	Y	Y		Y	Y	Y	Y	Y	
Groene Hart Cooperatie	Cooperative	Y								Y	Y	Y			
Van Amsterdamse Bodem	Cooperative		Y					Y							
Flevofood	Cooperative														

*Biopolder Lutkemeer is a concept plan at the moment of writing