



FOOD OF ARNHEM

Investigating the Municipal Influence on the Niche
Development of Local Food Production

Master Thesis Spatial Planning | Rachel Looijenga

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ABSTRACT

Producing and consuming local food is seen as a potential solution to deal with the environmental consequences of our global food market. Where the city-level is an appropriate scale to transform this global system into a local one it is also a big challenge for the planning community. This article aims to assess the relationship between the municipality of Arnhem and the development of local food initiatives. Besides, it provides insight into the tools used by the municipality to influence this development. The approach of Strategic Niche Management (SNM) is used to uncover this process of niche formation. Taking Arnhem as case-study, this research illustrates that the niche of local food production benefits from governmental involvement. The municipality of Arnhem first needs to have the ambition to develop a local food system and then focus on network building and creating space for initiatives.

Keywords: transition, strategic niche management, local food, governance, the Netherlands

SUMMARY

Citizens assume that the countryside feeds them but the truth is that the historical agricultural belt around the city has been exchanged for a global market. This global market with its rise of resources and environmental consequences urges us to transform. Producing and consuming local food is seen as a potential solution to deal with the environmental consequences of our global food market. While the city-level is an appropriate scale to transform this global system into a local one, it is also a big challenge for the planning community. The municipality of Arnhem was interested in this transformation opportunity and willing to take on the challenge.

The aim of this research is to assess the relationship between the municipality of Arnhem and the development of local food initiatives. It provides insight into the tools used by the municipality in influencing this development. This research aims to answer the following research question: *What is the influence of the municipality of Arnhem on the niche development of local food production?*

This case-study research uncovers the process of niche formation and the steering role of the municipality by applying the approach of Strategic Niche Management (SNM). In-depth interviews with local food initiatives and the municipality of Arnhem were held, together with an analysis of policy documents. Within this research the three different processes of niche formation were focussed on: voicing and shaping expectations, network formation, and learning process. The municipal tools they used or need to use in influencing the niche development were also analyzed.

This research illustrates that the niche of local food production needs to function on its own at some future point in time. But in the meantime, the development of these niche initiatives does benefit from governmental involvement. The municipality first needs to have the ambition to develop a local food system and then focus on network building and creating space for initiatives.

PREFACE

Food has always interested me, and besides the fact that I like to consume food, I gained more and more interest in food planning and the circular aspects of it. During my semester abroad in Vienna and the course Foodscapes at Wageningen University, I explored alternative food systems and started thinking about my own food choices and behaviour. This thesis gave me the opportunity to learn more about the willingness of people to change the food system and the difficulty in achieving this change. I am grateful for the chance to meet so many ambitious people who take their stewardship serious, and it was very interesting to figure out why it is so hard to change our globalized food system into a more regional one.

I would like to express my gratitude and appreciation to the following people. First of all, my supervisor for this master thesis: Dr. Ir. Gerrit Jan Carsjens, for his support, advice, knowledge and critique of my work in order to improve the quality of my research. Secondly, Dr. Ir. Noël van Dooren, for the opportunity to join the interesting research 'Regionaal Voedsel Lab' and the organised partner meetings which were valuable and fruitful. Thirdly, Drs. Ing. Henk Wentink of the municipality of Arnhem, for his expertise and network, his time to discuss my thesis and improve the set-up. Fourth, all the interviewees for taking the time to welcome me at their place, their interest in my research and their effort in answering the in-depth interview questions. And lastly, my parents, girlfriend and many other friends, for their mental support, coffee breaks, and feedback.

I hope this research inspires the municipality of Arnhem and all the pioneers in the field of local food production to keep working towards the ambition of a regional food system, and that it will encourage policymakers, researchers and other people to take food seriously and think critically about the place of food in policymaking.

I hope you enjoy reading this MSc Thesis,

Rachel Looijenga

Wageningen, March 2020

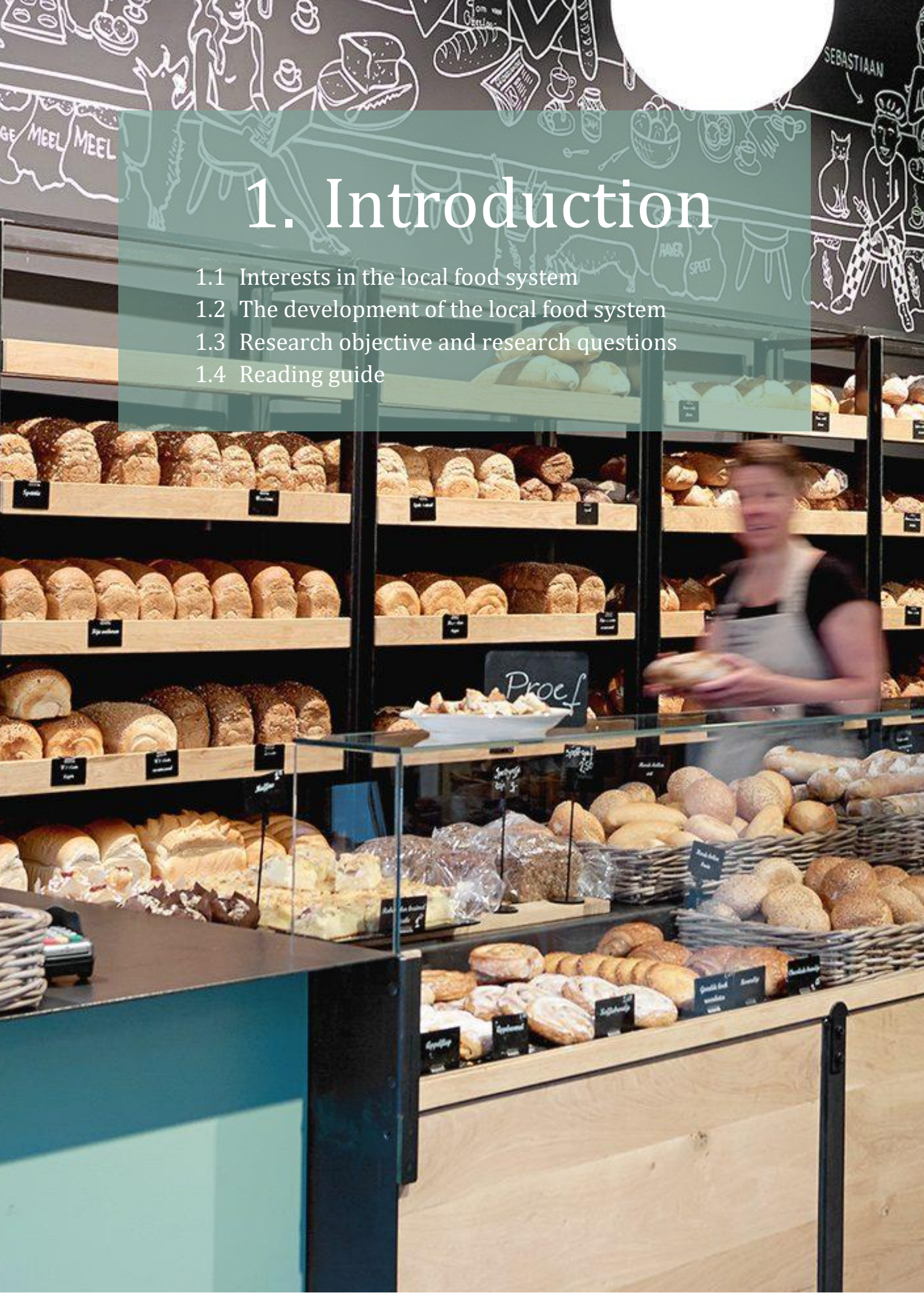
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1. Introduction

- 1.1 Interests in the local food system
- 1.2 The development of the local food system
- 1.3 Research objective and research questions
- 1.4 Reading guide



1.1 Interests in the local food system

Food determines what cities look like, both throughout history and today. Citizens assume that the countryside feeds them. Historically, a city's inhabitant capacity was determined by the amount of food produced in the agricultural belt of 30 km around town (Steel, 2008). Nowadays, our dominant agricultural system is based on global supply chains in order to produce as much food as possible at minimal costs, resulting in cities that expand limitlessly. Where cities still assume that the countryside feeds them, the agricultural belt around the city is exchanged for a global market. Because of this global market and concerned import, we lose energy, natural resources and productivity (Jurgilevich et al, 2016). Nowadays, "75% of global natural resources and 80% of global energy supply is consumed in cities" (Prendeville et al, 2017). This rise of resource use contributed to a series of pressure points such as climate change, reduced food security, water scarcity and air pollution (UNEP, 2015). This trend of urbanisation with its associated global food market and the related environmental consequences is urging us to transform (Loorbach & Shiroyama, 2016).

A response to this globalized food market is producing and consuming food locally. There are many environmental benefits to this as sustainable production results in smaller externalities, transportation distances are reduced and less packaging is used (Pearson et al, 2011). Where stakeholders are geographically close to a city, it contributes to shortening the chain (Morgan, 2014). Besides this, it adds value to society by restoring the connection between citizens and food (Pretty, 2001), and it strengthens the regional economy, improves the living environment, and creates healthier and more sustainable consumption (Van der Schans & Klein Gebbink, 2014).

The city-level is an interesting scale for this transformation (Stierand, 2012). City managers can lead urban sustainability issues at city-level because they have knowledge of their environment (Erickson and Tempest, 2014). Besides, cities have the technology and a network of highly skilled workers which creates an ideal condition for innovation (Ellen MacArthur Foundation, 2019). Where the urban food system is a level where food problems emerge, introducing food policies on a city-level can help to address these problems (Stierand, 2012). If our future is anything like the past, the urban food system will remain the same. But, the alignment between the local authority and its civil society can foster sustainable urban foodscapes (Morgan, 2014).

Scientific interest in the local food system

Pothukuchi and Kaufman (2000) stated two decades ago that the food system has remained a blind spot in city planning research. Where planners had addressed all the essentials of human life like land, shelter, air and water, they conspicuously forgot food (Morgan, 2014). The planning community, both academic and professionally, need to engage more with the food system while feeding our expanding cities in a sustainable fashion is the big challenge of this 21st century (Morgan, 2014). However, while food remains a big challenge in planning, the topic of food is no longer a stranger, planners now understand that food shapes our lives (Broekhof & Van der Valk, 2012).

Wiskerke (2009) states that alternative food places are important as a starting point for sustainable development and contribute to bringing more resilient and robust regions. These alternative food places focus on shortening the producer to the consumer food chain, new relations between the public sector and chain of food provision, and urban food strategies (Wiskerke & Viljoen, 2012). He suggests more research to get a better understanding of urban and

regional food dynamics in the contribution to the development of more sustainable urban and regional foodscapes (Wiskerke, 2009). This is in line with the UNEP (2015), which mentions the main challenge for economic and environmental policymaking is to create dual objectives of development and environment. Morgan (2014) suggests that the municipality can foster a sustainable urban foodscape by cooperating with its civil society. Already food policies are being developed in the Netherlands, in Utrecht and Amsterdam for example (Wiskerke, 2009). However, recent research by Prendeville et al. (2017) questions how policymakers can support citizens and community initiatives better. This question of Prendeville et al. shows that more research is needed on the role of policymakers in the development of these alternative food places. Therefore, this research aims to contribute to the currently existing knowledge about alternative food systems planning.

Societal interest in the local food system

Although cities are not able to transform the whole food system, they have unique assets and capabilities to transform their cities (Ellen MacArthur Foundation, 2019). In this way, cities can contribute to the development of alternative food systems. However, they meet difficulties in developing fitting food strategies. One reason for this is that food policy has been historically dominated by national and international levels of policy-making (Morgan, 2014; Loorbach & Shiroyama, 2016). Another reason for this is that the historic dichotomy between urban and rural policy placed food in the rural policy, which caused less attention to food and agriculture in cities (Pothukuchi & Kaufman, 1999).

One Dutch city inspired by the alternative food systems is Arnhem. The municipality of Arnhem desires an enlargement of the local food production intertwined with a sustainable and organic land use which contributes to profitable nature-inclusive agriculture surrounding the city of Arnhem (Municipality of Arnhem, 2017). Many local food initiatives are already up and running, and the municipality is currently examining how they can contribute to this development of initiatives. Part of the desire of the municipality Arnhem is to re-arrange over 400 ha. of which 300 ha. is leased to farmers, As some of these farmers will stop their business in the near future this results in opportunities to re-arrange those lands (Wentink, H. p.c. 17.10.2019). Other farmers want to extend their businesses in order to fulfil to the requirement of the Skal certificate, which gives them the 'organic' label. Those future opportunities together with the wishes of the farmers pressure the municipality to develop a vision on the future arrangement of local food production. It also provides the opportunity to develop a robust local food system within Arnhem. This study, therefore, makes a major contribution to the exploration of possibilities for the municipality of Arnhem. Based on these results they can evolve their strategy. In addition, this research is part of a current running project about regional foodscapes in Arnhem-Nijmegen (RVL). This study contributes to this bigger project by advancing the understanding of the municipal role of Arnhem in this regional foodscape.

1.2 The development of the local food system

This interest in a municipal strategy to develop the niche of local food producers asks for a transition on city-scale. This transition of the system has been researched by various scholars: Rotmans (2001) for example, did research on the role of governance in transition management, while Loorbach (2007) continued this research with a focus on transition management for sustainable development. Followed by governing transitions in this sustainability issue (Shove & Walker, 2010). Besides, much research has been done to regime transformations, where the commonly used theory is the Multi-Level Perspective (Geels, 2002). This Multi-Level Perspective (MLP) theory is used as a method to understand transitions. It describes the transition process on three levels: landscape (macro-level), regimes (meso-level) and niches (micro-level). These levels interact and align to accommodate a transformation of the socio-technical system (Geels & Schot, 2007). Although this theory was meant for technological transitions, it has emerged as a framework for analysing socio-technical transition towards sustainability (Lawhon & Murphy, 2011).

All scholars agree that transitions cannot be steered in terms of command and control, but in terms of influencing, adaptation and adjustment (Loorbach & Rotmans, 2006). The direction and speed of a transition can be influenced which implies the creating of a climate where a transition flourishes through the right initiatives at the right time (Rotmans et al, 2001). Research suggests (Geels, 2002; Hoogma et al, 2002) that niches alone are unlikely to change the regime which implies for this research that the initiatives which produce local food, are unlikely to change the globalized food system, on their own. But implementing policy intervention may empower this niche development of local food production (Geels, 2002; Hoogma et al, 2002).

Similarly to the growing interest of food within planning, research done to the transition of the food system garners more interest within the field of sustainable transition management. Jurgilevich et al. (2016) did research on the transition towards a circular economy in the food system. Spaargaren et al. (2012) wrote a book about food practices in transition. The Ellen MacArthur Foundation strives to accelerate the transition to a circular economy and published a report about 'Cities and circular economy for food' (Ellen MacArthur Foundation, 2019), while De Zeeuw & Drechsel (2015) published a book: cities and agriculture: developing resilient urban food systems. In addition, a city region food system toolkit was developed (FAO, 2018).

1.3 Research objective and research question

While research in the transition of the food system is growing, less research is done regarding the role of municipal planners and how they influence this transition of the food system. The **scientific problem** I aim to address in this project is: The underexposed topic in scientific research about sustainable food transitions is the relationship between the municipality as the regime and the local food initiatives as the niche. The **scientific objective** is to fill the gap in the literature on the relationship between the municipality and the development of local food initiatives.

Besides this gap in scientific literature, food policies have been neglected in Dutch city planning. This neglect is wasteful because the collective power of cities has the capacity to shape the food system (Morgan, 2014). Therefore, the **societal problem** is formulated as: Cities are lacking strategies to support niche development which limits cities in their contribution to the transition towards a local food system. The **societal objective** is to provide insight regarding the tools used

by the municipality of Arnhem and the possible tools in influencing the development of local food initiatives.

This research contributes to the research on food transitions, alternative food systems planning and the influence of the municipality on the development of local food production. These objectives lead to the following **main research question**: *What is the influence of the municipality of Arnhem on the niche development of local food production?*

1.4 Reading guide

The figure below gives an overview of how the research is constructed and how all the different parts relate to each other. The icons in between the boxes form the in- and output of the boxes. Chapter 2 presents the theories that are used to gain a better understanding of the transition towards an alternative food system. Chapter 3 describes the methods used in this research, a case study. Chapter 4 presents the results of the interviews and the policy documents review. Chapter 5 discusses the results and formulates answers on the sub-questions. Chapter 6 concludes this thesis, by answering the main research question and presenting recommendations for further research and policymakers.

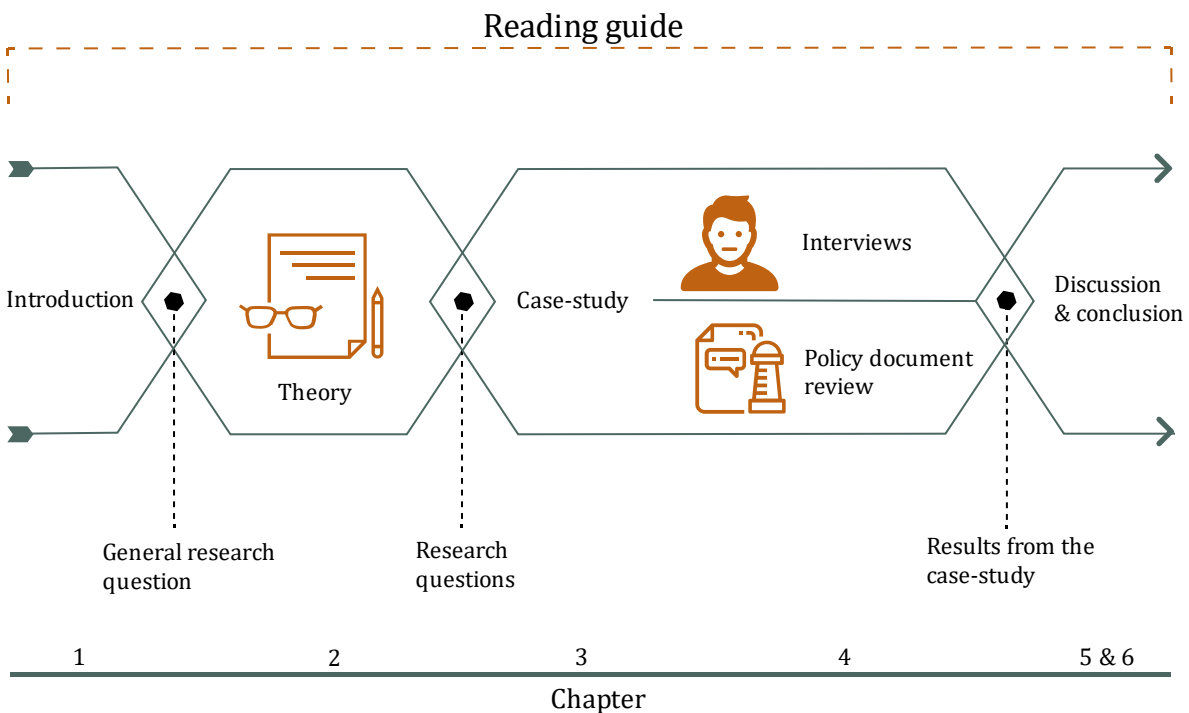


FIGURE 1: SCHEMATIC OVERVIEW OF THE READING GUIDE

2. Theoretical framework

- 2.1 The Multi-Level Perspective, a transition theory
- 2.2 Strategic Niche Management
- 2.3 Conceptual framework
- 2.4 Research questions



This theoretical framework provides an overview of the most important theories and ideas regarding the transition of the global food market into a local one and the governmental role within this transition. It first presents the Multi-Level Perspective theory to approach the sustainable transition. Second, attention is paid to Strategic Niche Management as a model for niche development. Within this model, we zoom in on the three processes of niche formation and the governmental instruments used to support this niche formation.

2.1 The Multi-Level Perspective, a transition theory

When tackling this problem of the desired change towards a local food system, a structural change is asked of the whole society, a transition (Rotmans, 2005). A transition is a long-term process of at least one generation which can be described as non-linear and consists of jarring changes due to periods of fast and slow changes (Geels, 2005). For this change, borders, barriers and relationships need to be lifted (Rotmans, 2005). Or in other words, the socio-technical systems which include technology, institutions, economy and sociocultural things, needs to change (Manders et al, 2018; Wieczorek, 2009).

The model most commonly used to study transitions is the Multi-Level Perspective (MLP) on system innovation (Geels, 2007; Rip & Kemp, 1998). This MLP theory describes “how transitions proceed and develop through interaction processes on three different levels: technological niches, socio-technical regime and socio-technical landscape” (Geels & Schot, 2007, p399). Figure 2 shows the transition of the socio-technical regime by pressure from the landscape development and novelties which enter the regime. Within this research, the different levels of this MLP theory can be recognised.

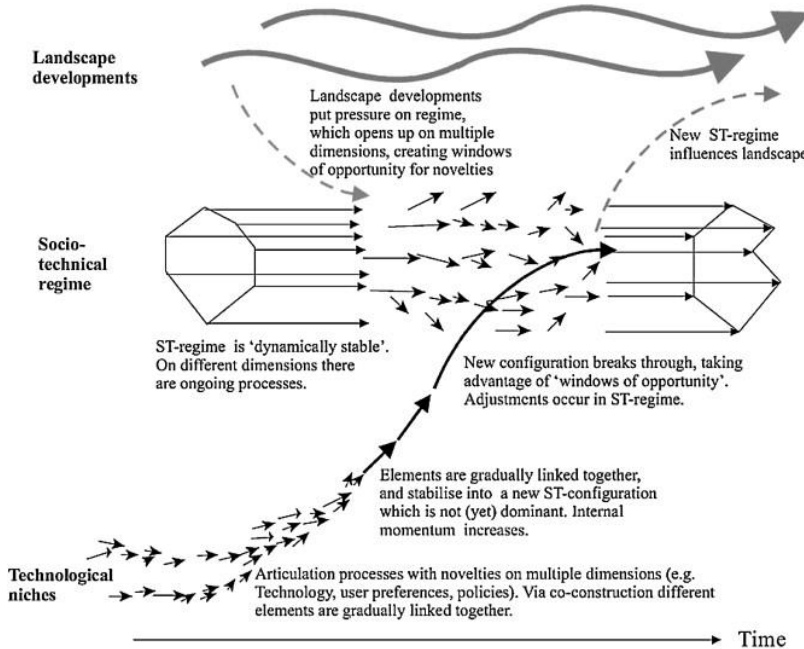


FIGURE 2: THREE LEVELS OF THE MULTI-LEVEL PERSPECTIVE (VAN BREE, VERBONG, & KRAMER, 2010)

Socio-technical regime

The central level of this MLP is the socio-technical regime. It represents the current regular state of affairs, a set of rules and routines (Manders et al, 2018). The socio-technical regime consists of clusters of actors, institutions and interests that are in a stable state (Geels, 2002). Regimes account for path-dependency and are often locked-in, which hinders radical change (Manders et al, 2018). The actors who identify and conceptualize the socio-technical regime are producer networks, suppliers, user groups, societal groups, public authorities, research networks and financial networks (Geels, 2011). All these different relationships are structured by the regime (Lawhon & Murphy, 2011). In this research, the socio-technical regime is represented by the current food system focussed on large scale production and intensification. The municipality of Arnhem is one actor in this regime, together with many others such as the province of Gelderland, the supermarkets and all the consumers who are hungry for cheap food.

Technological niches

Alternatives to this path-dependent and the locked-in regime are developed in niches. Niche innovations are technical innovators, visionaries or pioneers who link different elements in a seamless web through learning processes and effort, carried and developed by small networks (Geels, 2002; Geels & Schot, 2007). These niches facilitate experimentation with novelties (Manders et al, 2018). The actors at the niche level are start-ups, spin-offs and innovation departments from larger companies, individuals and societal groups (Geels, 2011). Within this technical niche, radical novelties emerge which are unstable and have a low performance. Those niches act as 'incubation rooms' and protect novelties against mainstream market selection (Kemp et al, 1998). This research focuses on the technological niche of local food initiatives who produce or want to produce local food for Arnhem. This niche also consists of people who want to eat local food and some people at the municipal and provincial level who have the ambition to steer this transition.

Landscape development

The socio-technical regime and technical niches are influenced by the socio-technical landscape. The socio-technical landscape "forms an exogenous environment beyond the direct influence of niche and regime actors (macro-economics, deep cultural patterns, macro-political developments). Changes at the landscape level usually take place slowly (decades)." (Geels & Schot, 2007, p400). In this research, the socio-technical landscape is a society that is aware of the need for a robust local food landscape, and the trends which put pressure on the socio-technical regime are, for example, the resource scarcity, the consequences of climate change and tighter environmental standards (Ellen MacArthur Foundation, 2013; van Hoek, 2015). The regime lock-in of the global food market is weakening under the pressure of these landscape trends; the more emphatically these occur, the more the global system will be at a disadvantage.

Window of opportunity

The MLP describes the emergence of a transition as follows: "The socio-technical landscape exerts pressure on the socio-technical regime, resulting in destabilization of the regime. At the same time, small networks and innovation developments are emerging at the niche level." (Geels, 2011, p28). This destabilization at the regime level creates a window of opportunity for innovation at the niche level. This window of opportunity can result in further development of the niche so it can incubate into the existing regime. To initiate a transition towards local food production an extreme pressure of the landscape is needed (Geels, 2011). This pressure can be exerted by the

various actors who move at the regime level where government agencies are the most important actors in this process as they can facilitate transitions through policy instruments and spatial changes. (Smith et al, 2005).

This Multi-Level Perspective indicates that the formed niche innovators can break through the regime by the advantage of the window of opportunity. As this research focusses on the niche development part of this MLP theory, the local food initiatives, it next presents a method to develop this niche cluster by influence from the municipality.

2.2 Strategic Niche Management

The concept of Strategic Niche Management (SNM) was introduced by the late 1990s as a research model to understand the process of niche formation and as a policy tool to influence this process (Schot & Geels, 2008). SNM has emerged to “promote socio-technical experiments to create a momentum for niches to become mainstream and co-evolve in a regime shift” (Lachman, 2013, p272). This momentum of breakthrough can be achieved by setting up experiments or applying policy instruments (Jain et al, 2017).

SNM as research model investigates how the experimental introduction of innovations in the niche can benefit the further diffusion of it. The interaction of three processes in the niche formation forms the basis to understand the success and failure of niche formation (Raven, 2005, 2006). Many scholars analysed the success or failure of many innovations by the interaction between three internal niche processes: expectations, network and learning (Raven, 2005, Van der Laak et al, 2007).

SNM as a policy tool consists of experiments which occur in protected spaces, and policy instruments to support niche development (Jain et al, 2017). It focusses on improving the innovation process in the niche by experimenting rather than defining the end state (Raven, 2005). It is not a technological push approach where niches are created top-down, but a form of reflexive governance with steering from within (Schot & Geels, 2008). Steering can be enacted by a range of actors and can address many parts of the niche formation process (Raven, 2005).

Three interrelated processes of niche formation

As defined in the MLP theory exists the niche of technical innovators, visionaries or pioneers who link different elements in a seamless web (Geels, 2002). The focus of this research is the novelties in the local food sector. However, the term local food has not been unequivocally formulated, and the truth is that many smaller retail outlets and initiatives provide consumers with an alternative to the supermarkets (Pearson et al, 2011). The discussion about the definition of local food is not that relevant for this research, so it is left for what it is. More important is the elaboration of local food and there are many existing examples, from value-adding options to incubator function.

Many niche players occur, but these niche players alone are not able to transform the current existing regime. They should first cluster with similar initiatives to attract others and synergise their activities (Smith & Raven, 2012). This formed niche of actors provides space for further development (Manders et al, 2018). Further development is related to success or failure of three interrelated processes: voicing and shaping expectations, network formation, and learning process (Raven, 2005; Van der Laak et al, 2007; Caniëls & Romijn, 2008; Schot & Geels, 2008). First, it matches the promises from the innovators and the stakeholders' expectations in order to satisfy the needs in society (Kemp et al, 1998). Positive expectations can support the concept to

grow and attract other stakeholders (Schot & Geels, 20088). Second, network formation is widely seen to require a co-operating actor-network that provides and exchanges the necessary resources (Hoogma, 2000; Jain et al, 2017). Third, experimentation-based learning on the possibilities and constraints of innovations needed to become socially embedded (Kemp et al, 1998).

While actors agree on their expectations about the local food system, learn from each other's experiments and expand the network, the mass of the local food niche grows and may challenge the existing regime of a global food market at a certain moment (Geels, 2002; Smith & Raven, 2012). Those three processes: expectations, network and learning are applicable concepts to research, because it gives the opportunity to examine the current success or failure of the niche development. This research will focus on these three processes of niche formation in the development of local food initiatives in Arnhem. To examine those processes table 1 shows the criteria for each process. The criteria are explained below.

TABLE 1: THE THREE INTERRELATED PROCESSES IN NICHE FORMATION

	Voicing and shaping expectations	Network formation	Learning process
Considered to be good when:	Aligned	Broad	Diverse
	Credible	Willingness	First-order learning
	Specific	Expanding	Second-order learning

Looking at the first process of voicing and shaping expectations the three conditions are as follows:

Aligned: an increasing number and variety of participants share the same expectations (Hoogma, 2000; Van der Laak et al, 2007).

Credible: when more ongoing projects support the actors' expectation by delivering facts and demonstrations (Hoogma, 2000; Van der Laak et al, 2007; Smith & Raven, 2012).

Specific: clear steps which should be taken in developing the technology to realise the expectations (Hoogma, 2000; Manders et al, 2018; Smith & Raven, 2012).

In the second process, network formation is considered to be good when:

Broad: the network is broad and diverse stakeholders are involved (Hoogma, 2000; Van der Laak et al, 2007; Manders et al, 2018; Smith & Raven, 2012)).

Willingness: actors are willing to invest in maintaining the niche (Manders et al, 2018).

Expanding: actors bring in powerful incumbents and new entrants and thereby expand the network (Hoogma, 2000; Manders et al, 2018).

The last process is the learning process, it's three conditions are as follows:

Diverse: About multiple dimensions, not only focussed on techno-economic optimisation but also on alignment between the technical and the social (Manders et al, 2018; Smith & Raven, 2012; Van der Laak et al, 2007).

First-order learning: learning about the effectiveness of certain technology to achieve a specific goal within a given set of norms and rules (Hoogma, 2000).

Second-order learning: learning about underlying norms and assumptions and questioning these norms or changing the rules (Hoogma, 2000; Van der Laak, 2007; Manders et al, 2018; Smith & Raven, 2012).

These criteria of niche formation do not guarantee a successful niche development. The niche actors need to consider what strategy they use to challenge the existing regime, a symbiotic strategy by fitting and conforming with the existing regime, or a competitive strategy by stretching and transforming. Weber et al, (1999) concluded that a successful incubation is most likely when the niche actors are compatible with the regime. When the niche is in tune with the system it will not lead to great regime changes and when the niche is too radical it demands too many changes of the regime.

Instruments to support niche development

Where niche players on their own are unlikely to transform the regime, policy interventions may be needed to push pressure for change and help the development of this niche along a new trajectory (Geels, 2002; Hoogma et al, 2002; Smith, 2007). An authority can play an important role in steering the niche development with a municipal strategy. Policies supporting the development of local food initiatives have the potential to prepare them for influencing the regime (Pearson et al, 2011). This influence presents a problem for policymakers, they need to go beyond controlling the system towards changing it by steering (Termeer, 2019). Steering the food system as an authority implies that the authority in the existing regime does not have the power over resources in the niche level, because they have no capacity to mobilize all possible resources (Bosman & Rotmans, 2016). Policy interventions need to steer these initiatives so they can mobilise all possible resources and expand their niche. A vision supported by the stakeholders on how to develop the niche, for example, can maximise the opportunities for experimentation (Raven, 2005).

An experiment is one of the options to support niche development and to contribute to radical innovation with many stakeholders (Jain et al, 2017; Caniëls & Romijn, 2008). In the process of niche formation is it important that real-life experimentation happens, and spaces are created for clusters of initiatives to synergize activities. The so-called protected spaces allow experimentation with co-evolution of technology, user practices, and regulatory structures (Schot & Geels, 2008). It gives promising technologies a chance to develop something that is actually used. It is more than just an experiment but aimed at making institutional connections and stimulating learning processes. One important advantage is that the protected space shields them from mainstream market selection (Kemp et al, 1998). Another advantage is that these protected spaces support the development of path-breaking innovations by nurturing (Smith & Raven, 2012). The last advantage is that protected spaces empower path-breaking innovations (Smith & Raven, 2012). Creating such protected spaces as a municipality, will help local food initiatives to further develop, benefit from new learning opportunities, and become ready to be implemented in the current regime.

In developing the three processes of niche formation it is important to stimulate growth, so the recently formed niche can develop towards a strong niche which is capable of incubating in the existing regime. Supporting the stakeholders is noticed as the most important goal of the local authority (Manders et al, 2018). Part of this support is to enable learning and exchange lessons by publications or organizing seminars and meetings. Within this support, it is important that barriers are identified and removed (Manders et al, 2018). In this context, barriers are “obstacles

that can be overcome with concerted effort, creative management, change of thinking, prioritisation, and related shifts in resources, land uses, institutions” (Moser & Ekstrom, 2010 p22027). They are not limiting but serve as an opportunity to overcome. Institutional obstacles can define potential barriers in the adaptation process of this transition towards a local food system (Mendizabal et al, 2018).

This concept of SNM can be used to identify the current state of the niche development and to analyze the influence of the supportive tools used by the municipality of Arnhem on niche development.

2.3 Conceptual framework

Niche players alone are unlikely to change the regime, they need to cluster. Strategic Niche Management can contribute to this clustering of niche players. Therefore, the three processes of niche formation are examined and in addition the municipal instruments to analyze the influence of the municipality on niche development. Figure 3 shows a schematic overview of the conceptual framework for this research.

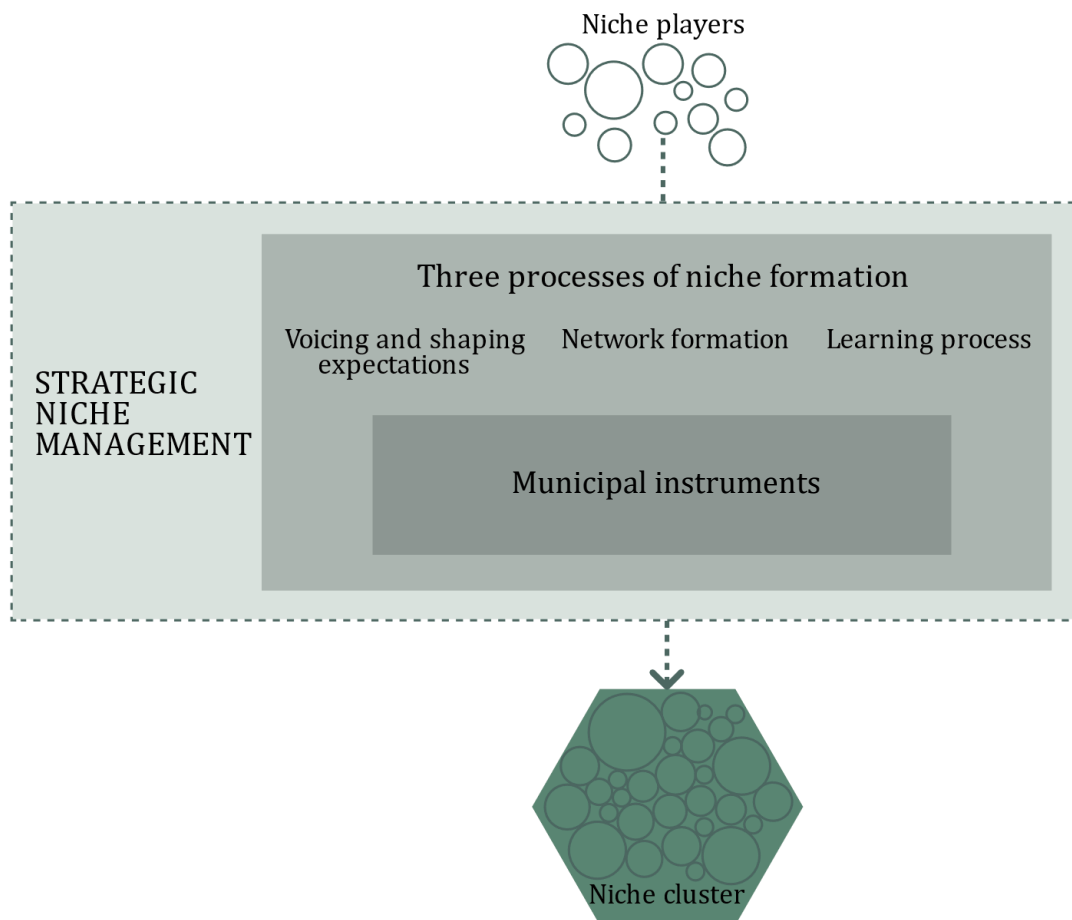


FIGURE 3: SCHEME OF THE CONCEPTUAL FRAMEWORK

2.4 Research questions

This research is conducted to fill the gap in the literature on the relationship between the municipality and the development of local food initiatives. It also provides an insight into the tools used by the municipality of Arnhem in the process of niche formation. Therefore, the theory of Strategic Niche Management is applied to the development of local food initiatives in Arnhem. The main research question according to the objective is:

What is the influence of the municipality of Arnhem on the niche development of local food production?

Herewith, the general research consists of a case-specific examination of the process of niche formation, focussing on the current local food initiatives and the steering role of the municipality in developing this niche. The sub-questions to answer this main research question are formulated using the three processes of niche formation explained in section 2.1. The sub-questions are:

SRQ 1: What is the municipal role in voicing and shaping the expectations of a local food system?

SRQ 2: What does the municipality of Arnhem contribute to the formation of a network of food initiatives?

SRQ 3: Which tools are used by the municipality of Arnhem in stimulating the learning process of niche initiatives and their formation?

First, the process of voicing and shaping expectations around the topic of local food is examined, and the role of the municipality of Arnhem in shaping these expectations. Second, the process of network formation within the niche is examined, and the contribution of the municipality to network building. Third, the learning process of the initiatives and the tools used by the municipality are examined.

3. Research Design

- 3.1 Methodology
- 3.2 Case description: Arnhem
- 3.3 Methods of data collection
- 3.4 Methods of data analysis
- 3.5 Validation of the research



In order to answer the main research question and the sub-questions above, this chapter discusses the methodology and specific methods applied in this research. First, the methodology used will be described. Second, a more detailed overview of the research methods will be given. The case study will be introduced as well as the methods for data gathering and analysis. Finally, it discusses how these results were validated.

3.1 Methodology

Due to the qualitative nature of the objective and research questions, an interpretive research approach is used. Because of peoples' interaction with the world, they construct meanings and build on their own reality (Creswell, 2014). The 'real' world is thus socially constructed by peoples own reality, in which 'real' is subjective, rather than objective (Walsham, 2006). This interpretive research is a qualitative methodology which increases understanding of a certain phenomenon in a particular situation. This phenomenon is studied in its natural context from the perspective of peoples' realities (Elbardan & Kholeif, 2017). An interpretive approach is used in this study as the phenomenon of the development of local food initiatives consists of many interested people with different realities, which helps in gaining a deeper understanding of the phenomenon.

In this interpretive approach is made use of deduction and induction. Where the current state of the niche development is observed by using the three processes with its criteria, deduction is used. Where fewer scholars write about the influencing role of the municipality on the niche formation process of food initiatives an inductive research strategy was chosen to examine the influencing role of the municipality. With this inductive strategy, the phenomenon of influencing the niche formation is investigated by interviews and a policy document analysis, to find empirical patterns that can function as input for a new theory (Boeije, 2010).

Fieldwork is a fundamental part of the interpretive research method (Walsham, 2006). As the development of the niche formation is different and context-dependent, they need to be analyzed in their natural context. This is one of the reasons why a case study was chosen. Based on the qualitative nature of the objective to examine the influence of the municipality on the development of a local food niche, a qualitative research method is chosen, a case study.

Case studies are a common practice in spatial planning research and provide in-depth context-dependent knowledge of local practices (Flyvbjerg, 2006). It is an approach used to study a phenomenon by analyzing an individual case (Kumar, 2019). This is useful because little is known about the phenomenon (Elbardan & Kholeif, 2017). The aim of a case study is to collect contextual information to create a better understanding of the phenomenon in its context (Kumar, 2019). Several types of case studies exist. While an intrinsic study focusses on learning about a person or phenomenon, an instrumental case study is developed to promote an understanding of a specific issue (Gordin, 2006). Where the study focusses on the case-specific phenomenon, the goal of this study goes beyond this case to gain a better understanding of a specific issue. This research applies an instrumental single-case study.

Within this case-study, the phenomenon of the niche-development of local food initiatives is researched, thereby focusing on the influence of the municipality as regime player on the development of local food initiatives as niche players.

3.2 Case description: Arnhem

This study took place in Arnhem. Arnhem is chosen for the case study because of the many existing food initiatives and the sympathetic governance towards these initiatives. Besides, this thesis is part of the research 'Regional Foodscapes' which is focussed on the food landscape in the region Arnhem-Nijmegen. The goal of this project is to contribute to the acceleration of the transition towards a sustainable and regional food system and reflect on this transition. This research is led by Noël van Dooren, lecturer in Sustainable Foodscapes in Urban Regions at Van Hall Larenstein located in Velp. One of the partners in this project is Henk Wentink from the municipality of Arnhem, this policy adviser for a climate-adaptive city, public space, urban agriculture and temporary initiatives introduced this case.

Along the Veluwezoom, the area on the border of the pushed moraine landscape of the Veluwe and the rivers Rijn and IJssel arose a hundred outdoor places and estates. This is due to special attraction to the upper-class. The estate zone of the Veluwezoom is characterised by a coherent geometric structure lane system, large-scale landscape parks, farmyards, country estates, fields, meadows and forest area. The estate zone of the Veluwezoom is referred to as Gelders Arcadia and includes the municipalities of Wageningen, Renkum, Arnhem, Rozendaal and Rheden (Gelders Genootschap & Buro Poelmans Reesink, 2016).

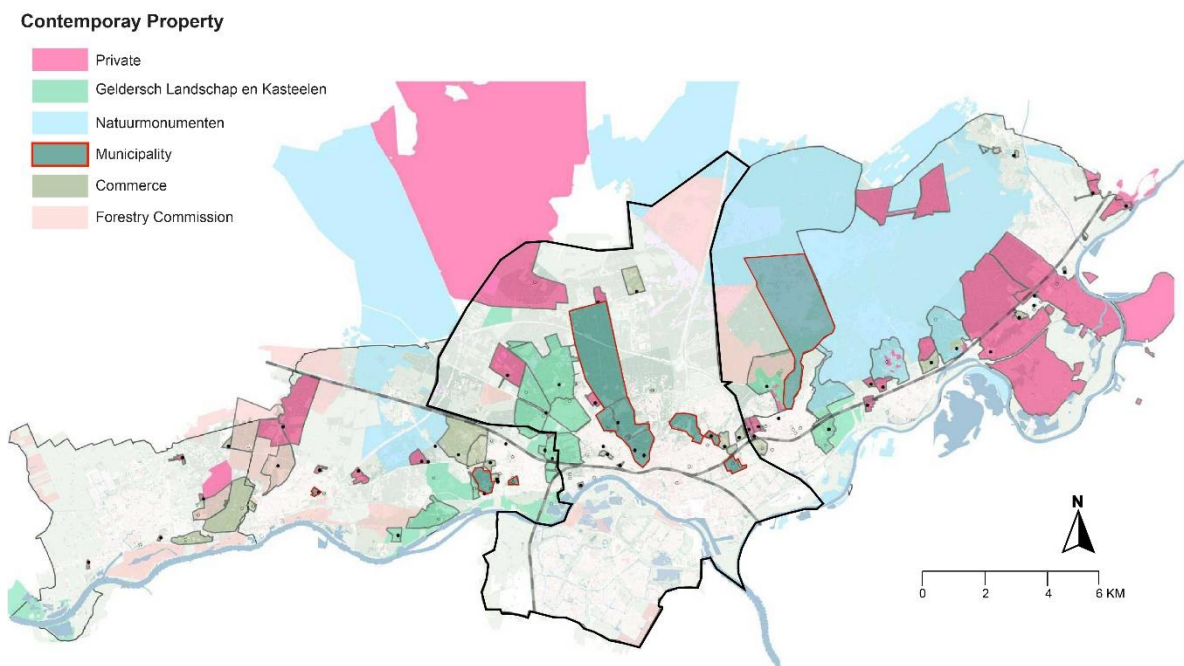


FIGURE 3: GELDERS ARCADIA, ESTATE ZONE ALONG THE VELUWEZOOM. FRAMED IN BLACK ARE THE BOUNDARIES OF MUNICIPALITY OF ARNHEM (GELDERS GENOOTSCHAP & BURO POELMANS REESINK, 2016).

As shown in figure 4 plots of land are owned by the municipality of Arnhem; all of these plots together consist of 412 ha. (Wentink, H., P.C, September 12, 2019). This amount of land is an opportunity for the municipality of Arnhem to contribute to the development of a local food system because many tenant farmers are willing to steer their way of production into a more sustainable direction or even local direction. Besides, many other initiators are interested in starting their local food businesses on one of those plots. With their land, the municipality can contribute to the development of these niche players.

3.3 Methods of data collection

This research has been conducted by an instrumental single case-study consisting of interviews and a review of policy documents. The interviews are of key importance to this study as the perspective of peoples' realities related to the phenomenon in its natural context is investigated. In addition, several policy documents are reviewed if the municipal policies are in line with the results from the interviews. Table 2 shows the used method per sub-research question.

TABLE 2: DATA COLLECTION

SRQ		Method(s)		Data	Source
1	SRQ 1: What is the municipal role in voicing and shaping the expectations of a local food system?	1	Interviews	Transcripts	Participating stakeholders
		2	Policy document review	Extracted relevant data	Policy documents & reports
2	SRQ 2: What does the municipality of Arnhem contribute in the formation of a network of food initiatives?	1	Interviews	Transcripts	Participating stakeholders
		2	Policy document review	Extracted relevant data	Policy documents & reports
3	SRQ 3: Which tools are used by the municipality of Arnhem in stimulating the learning process of niche initiatives and their formation?	1	Interviews	Transcripts	Participating stakeholders
		2	Policy document review	Extracted relevant data	Policy documents & reports

In-depth interviews with authority and local food initiatives

The main sources of data collection for this research were semi-structured interviews. Interviews help to uncover more detailed and inside information. It is a common method of collecting information from people, especially when in-depth information regarding a complex phenomenon is needed (Kumar, 2019). The interviews were held according to a semi-structured format. In advance of the interviews, a format of topics was made, each consisting of main questions and follow-up questions. More specific questions were asked depending on what the interviewee said. This semi-structured format created room for spontaneous questions, reactions and allowed the researcher to explore side paths during the interview while keeping a certain consistency in all the interviews. This helped to gain an in-depth understanding of how the interviewee perceived the topic of interest (Silverman, 2014). All the interviews were held in Dutch since this was the mother tongue of the researcher and all the interviewees, but for the scope of this research, quotes are translated into English. The interviews took approximately 35 to 90 minutes and were audio-recorded with permission. The interview protocol and the original Dutch quotation can be found in the appendix.

The selection for interviewees was done by desk research, attending a network meeting of the project 'Regional Foodscapes', contact with a policy adviser from the municipality of Arnhem and by snowballing during the interviews. New names of potential interviewees popped up naturally during the interviews or after asking which persons would be of importance for the research. An overview of the interviewees is given in table 3. In order to gain an understanding of this phenomenon, interviews were held with representatives from both the municipality and initiatives. Five people from the municipality were interviewed, as actors in the regime level. A

total of nine people from local food initiatives were interviewed, as actors in the niche-level. Another three interviews were held with a land estate owner in the north of Arnhem, the province of Gelderland and a sustainability platform in the city centre of Arnhem.

TABLE 3: AN OVERVIEW OF THE INTERVIEWS

Municipality			Initiative			Other		
Function	Location	Date	Function	Location	Date	Function	Location	Date
Policy adviser 1 - Municipality of Arnhem	Stadskantoor Arnhem	14/11 /2019	Care farm	Wageningen University	15/11 /2019	Land estate owner	At the office - Arnhem	11/12 /2019
Policy adviser 2 - Municipality of Arnhem	Stadskantoor Arnhem	04/12 /2019	Baker	Bakery Rheden	21/11 /2019	Sustainability platform**	In their store- Arnhem	03/12 /2019
Policy adviser 3 - Municipality of Renkum*	Gemeentehuis Renkum	13/11 /2019	Dairy farmer	At the farm - Arnhem	04/12 /2019	Program manager - Province of Gelderland	Huis der Provincie - Arnhem	14/11 /2019
Alderman - Municipality of Arnhem	Stadhuis Arnhem	06/12 /2019	Food forest	At the office - Arnhem	07/11 /2019			
Councilor - Municipality of Arnhem**	Sustainability store Arnhem	03/12 /2019	City farmer 1	At the farm - Arnhem	27/11 /2019			
			City farmer 2	At the farm - Arnhem	28/11 /2019			
			City farmer 3	At the farm - Arnhem	05/12 /2019			
*Policy adviser 3 & Future butcher are the same person.			Pilot farm	Wageningen University	09/12 /2019			
**Councilor & Sustainability platform participated in the same interview.			Future butcher*	Gemeentehuis Renkum	13/11 /2019			

Initially, I planned to hold around 15 interviews equally divided between the municipality and local food producers, but due to snowballing I decided to include other stakeholders which are not in the category municipality or initiative, and stakeholders who did not start their project yet but were interesting to talk to.

Two last remarks about the interviews: the first one is that the policy adviser from the municipality of Renkum is the same person as the future butcher. This interview consists of two parts, the first half of the interview was about the municipality and the second half about the initiative. The second remark is that two people were interviewed at the same time, the councilor together with the sustainability platform, as the councilor is also a volunteer in this sustainability platform.

As a researcher, I am aware of the fact that this could influence their given answers, in the first interview due to the experiences the interviewee has with the municipality, and in the second interview since they may not speak freely while there was another person in the room. This will be taken into consideration when discussing the results.

Since I interviewed many different people, from an alderman to a farmer, and the interviews had a semi-structured open character, I addressed the same topics in all the interviews but changed some questions. In this way, questions could be formulated freely and tailored to the expertise of the interviewee to hold an in-depth interview with all the participants. To create a list of interview questions the concepts of strategic niche management were operationalized according to their criteria described in the theoretical framework. The operationalisation is listed in table 4. This resulted in an interview guide, which is presented in appendices 1 and 2 (Dutch & English).

TABLE 4: CONCEPTS OF STRATEGIC NICHE MANAGEMENT OPERATIONALISED IN THE INTERVIEWS

Concepts	Items	Criteria	Main question
Process of niche formation	Voicing and shaping expectations (SRQ 1)	Aligned	What is the expectation of local food?
		Credible	When is the project deemed a success?
		Specific	What is needed to be successful? Do you need the municipality for this success?
	Network formation (SRQ2)	Broad	Do you work together with others?
		Willingness	What do you need from the others? What is the importance of the network?
		Expanding	Do you miss parties? What is the role of the municipality for this expand?
	Learning process (SRQ 3)	Diverse	Why do we need to change the current system?
		First-order learning	What did you learn so far?
		Second-order learning	What is needed to change the current system?
Municipal instruments (SRQ 1,2,3)			What did you receive from the municipality (subsidies, land, network, knowledge, etc.)? What instruments do you make use of? Would a protected space be helpful in stimulating the transition?

Document analysis

Besides interviews, the collection of data also consisted of document analysis. With the document analysis, I tested if the information gathered from the interviews was in accordance with the policy documents. Interviewees could say that a lot is happening in the field of local food production and that the municipality is stimulating this, but this should then also be reproduced in policy documents. The focus of this analysis is the current use of food-related issues and the desire for sustainable and regional food production. The purpose of this policy document analysis was to create a better understanding of the written will of the municipality in facilitating the development of local food initiatives.

The documents used in this analysis were selected based on three criteria. First, the documents are published by or in accordance with the municipality of Arnhem. Second, the documents needed to be accessible online. Third, the documents needed to relate to spatial planning and/or urban agriculture. Table 5 lists the 8 policy documents that matched these criteria and therefore were used in this study.

TABLE 5: REVIEWED POLICY DOCUMENTS

Title	Author	Publication date	Pages
Eet je regio	Voedselregio Rijn IJssel Linge	2018, April	39
Visie stadslandbouw	Municipality of Arnhem	2017, September	20
Groenvisie 2017-2035	Municipality of Arnhem	2018, March	43
Structuur visie 2020 doorkijk 2040	Municipality of Arnhem	2012, December	158
Circulair Arnhem	KplusV (client: Municipality of Arnhem)	2018, February	60
Perspectiefnota 2018-2021	Municipality of Arnhem	2017, March	50
Perspectiefnota 2020-2023	Municipality of Arnhem	2019, October	45
Meerjarenprogrammabegroting 2018-2021	Municipality of Arnhem	2018, December	262

“Eet je regio” is a booklet created by various partners to investigate the setup of a network of local food production. This booklet is the outcome of one of the proposals made in the report of “Circulair Arnhem”.

One outcome of the “Eet je regio” is the “Visie stadslandbouw” which is a document from the municipality to show the direction of urban agriculture.

The “Groenvisie 2017-2035” shows the vision for the public green in Arnhem and sets the direction for policies regarding the public green.

The “Structuurvisie 2020 | doorkijk 2040” is the zoning plan in Arnhem which sets a strategic framework for spatial planning in the long term.

“Circulair Arnhem” is a document commissioned by the municipality to examine what they can do to implement the circular economy in their policies. The outcome is implemented in the “Meerjarenprogrammabegroting”.

The “Perspectiefnota 2018-2021” contains the overall program and direction of the municipality of Arnhem. This document forms the framework for the “Meerjarenprogrammabegroting”.

The “Perspectiefnota 2020-2023” is the newest version of the direction of the municipality but the newest “Meerjarenprogrammabegroting” is not online available yet.

The “Meerjarenprogrammabegroting 2018-2021” is the further development of the “Perspectiefnota 2018-2021”, the direction is specified.

3.4 Methods of data analysis

The data analysis is performed based on a large amount of qualitative data as a result of the semi-structured interviews and the policy documents review.

Interview transcription

In this study, 15 semi-structured interviews were conducted between the 7th of November and the 11th of December 2019, at several locations in Arnhem. All interviews were taped on an iPhone 7, using the app “Dictaphone”. The length of every interview varied, the shortest recording was 35 minutes and the longest, 90 minutes. The average length of a recording was 57 minutes. I transcribed the interviews within a few days of interviewing, and all the interviews were transcribed before the Christmas holiday. I ended up with 154 pages of interview transcripts, an average of 10 pages for each interview, which I turned into useful data.

Reviewing the policy documents

I also reviewed 8 policy documents from the municipality of Arnhem. After choosing the documents, I read all of them and made notes. I made a list of useful terms regarding the concepts of Strategic Niche Management and counted the quantity and form in which the terms were present in each document. To count the terms I used the full reader search in Acrobat Reader. This information gave me both similarities with the data from the interviews, and contradictions between the spoken words of the municipality and their policies. The operationalised list of the searching terms within the policy documents is listed in table 6. Where the conceptual framework shows a box for municipal instruments, this table only shows the three processes of niche formation while the documents are a form of a municipal instrument.

TABLE 6: CONCEPTS OF STRATEGIC NICHE MANAGEMENT OPERATIONALISED IN THE POLICY DOCUMENT ANALYSIS

Concepts	Items	Searching terms	
		NL	E
Process of niche formation	Voicing and shaping expectations (SRQ 1)	Voedsel	Food
		Eten	Food
		Lokaal	Local
		Regionaal	Regional
		Lokaal of regionaal voedsel	Local or regional food
		Duurzaam	Sustainable
		Landbouw	Agriculture
		Stadslandbouw	Urban agriculture
		Agrarisch	Agriculture
	Producers	Produce	
	Network formation (SRQ2)	Netwerk	Network
		Belanghebbenden	Stakeholders
		Gemeente Arnhem	Municipality of Arnhem
		Faciliteren	Facilitating
Stimuleren		Stimulating	
	Ondersteunen	Supporting	

Learning process (SRQ 3)	Transitie	Transition
	Leren of Geleerd	Learning or Learned
	Gemeente Arnhem	Municipality of Arnhem
	Faciliteren	Facilitating
	Stimuleren	Stimulating
	Ondersteunen	Supporting
	Pilot projecten	Pilot projects
	Experimenteren	Experiments

Coding the transcripts

Before coding the qualitative data, I had to choose between deductive and inductive coding. Where the inductive method brings freedom and creativity, it also creates a lot of work afterwards (Boeije, 2010). The deductive coding, on the other hand, is more structured but also directing and in some ways restrictive (Boeije, 2010). I decided to apply an integrated method.

I printed out three transcripts, two initiatives and one governmental transcript. I started from scratch and created codes from the qualitative data itself, line by line. After coding these three transcripts I gathered all the codes and looked for similar or overlapping codes. I made a list with six main codes and placed most of the sub codes in one of these main codes. Some sub codes did not fit in one of the six main codes because of their relevance and formed their own main code. Lastly, I expanded the main codes with more sub codes based on the interview questions.

After the broad codes were set, I started transcribing all the interviews in ATLAS.ti in a more structured and deductive way. During transcribing I moved or renamed some sub codes and I developed more sub codes from the data. In the end, I had 13 main codes, of which 6 had sub codes; a total of 80 different codes.

After transcribing all the interviews, I had some main codes with many sub codes and quotations, and some main codes with fewer sub codes or a few quotations. The next step in the coding process was axial coding. In this step, I looked over the codes again and arranged them according to their connections (Boeije, 2010). I made a new code scheme with main- and sub codes, I merged some codes, and split some codes. I ended up with 8 main codes and a total of 76 different codes.

As the categories and labels will be the main result of this thesis there was one final step to take; selective coding or data reassembling. In this final step, I searched for patterns, relationships and explanations for what is observed (Boeije, 2010). The goal of this step was to integrate the codes and look at the central themes, all in order to prepare for the writing of results.

3.5 Validation of the research

With only one researcher the whole process of collecting and analysing the data is subjective to my position, involvement, and interpretations. This can make case research weak because it involves no experimental control or internal validity. Besides, an experienced researcher may see concepts and patterns which I may miss as a novice researcher (Bhattacharjee, 2012). This research does not deliver facts or speak the ultimate truth, everything written remain findings and opinions of participants or me as a researcher, and therefore serve as interpretation and to be considered no more than probable. To make this process of sense-making of the results reliable and trustworthy, I will spend some time on the strategies used.

Triangulation

I ensured that this research was carried out in good practice by applying triangulation. To apply triangulation, I used different data collection techniques, 15 interviews with different people from alderman to a farmer, and an additional policy document review.

Thick description

While this study focusses on a small group of people, the findings must be oriented to the contextual uniqueness of the social world (Bryman, 2012). For this, thick description is applied where possible. This thick description is an observation in its context to provide a rich narrative story (Bhattacharjee, 2012).

Objectivity

While complete objectivity is impossible it's important to not covertly allow personal values to sway the conduct of the research and the findings from it (Bryman, 2012). Therefore, I tried to be authentic as a researcher. By fairly representing different viewpoints, I hoped to give the members a better understanding of their current behaviour, help them to appreciate perspectives of others, and to empower them to change their circumstances and take action.

Member-checking

It can occur that I interpret the answers of the interviewee differently than the respondent intended. To overcome this, I sent a document of the results with the used quotations to the respondents. They could check if their answers were interpreted correctly and if they agreed with the quotations I used. All interviewees responded to the member-checking process; sometimes with approval, sometimes with some additional remarks.

Ethical considerations

Before I started an interview, I asked the respondents permission to audio record the interview and the interviewees were coded to ensure their anonymity. During the interview, they had the right to refuse a question. Afterwards, they had to approve the result section with their used answers, and I handled the shared information confidentially.

4. Results

- 4.1 Process of voicing and shaping expectations
- 4.2 Process of network formation
- 4.3 Process of learning



This chapter outlines the results from 15 interviews and 8 policy documents. I tried to be as comprehensive as possible, answering mainly the sub-questions, to be able to answer the main research question of this thesis later on. The interpretation of the data is supported by many quotes by the participants. References to the interviews are given according to the function of the interviewee or their initiative. A list of the original Dutch quotations is included in appendix C.

The results are presented using the three sub-questions. Each part consists of one process of niche formation. In each part, the current state of the process according to the three criteria is first examined, for which the data from the interviews is used. Secondly, a review of the policy documents is given in the light of the process, this review focusses on the general process and is not split into the three criteria. Thirdly, an overall view of the process is presented, where the outcome of the policy documents is compared with the data from the interviews. The tools used by the municipality are also mentioned, and suggestions are given.

4.1 Process of voicing and shaping expectations

This first process of niche formation is characterised by its expectations. The interviews showed an increasing interest in local food and the initiatives had similar expectations for the local food production. However, while the number of ongoing projects to support these expectations remains low, the great expectations the initiatives have remain unlikely. Besides this, the expectations are not very specific. It is not clear which steps should be taken, especially those which are required of the municipality. The lack of specific steps is also recognised in the policy documents, as these documents showed limited interest in the topic of local food production.

4.1.1 Criteria

Aligned

The results from the interviews show that there is an increasing number of participants sharing the same expectations, but that consumers are not totally ready for it and the municipality lacks interest.

Several respondents mentioned that interest in local food is growing. *“3 years ago, I asked at a meeting: what do you do with sustainability? They didn't think it was that important. But now you can see that local initiatives are getting off the ground a lot more.”* (Baker)¹. This increasing interest can be attributed to the younger generation as one of the interviewees mentioned that he recognises a lot of interest in the students (Sustainability platform). More interviewees mentioned the location as an important factor, while lots of local food consumers live in cities and thus in Arnhem.

Where half of the interviewees thought that the consumers are ready for local food, does the other half admit that most consumers are not interested. This due to several reasons. The first, most mentioned reason is that local food is more expensive and most consumers do buy the cheapest products. The second reason is that it asks for changing behaviour, you need to plan more time for grocery shopping and cooking. The third reason is only mentioned once, but interesting to mention *“Local food is maybe still the neglected child of all the different food trends. Healthy, vegetarian, all those things are more dominant. And then local food, oh wait, nice that my apples come from the Netherlands and not from New-Zeeland.”* (Councilor)².

Where views related to the consumers remain diverted, all the interviewed initiatives are interested in this topic, which is logical, while they are all local food producers. They are interested

for several reasons. The most mentioned reason is that it is needed to counteract the global food market. Second, because it is fun to produce locally. Besides they can earn money with it, a side note is that the initiatives think it becomes more difficult to earn money when competition increases. Another reason why they are interested in producing locally is that the consumers live close by, which makes the demand market close by. *"It's mainly because my farm is close to the city, it's a very nice location to do something like this."* (Dairy farmer)³.

But the reality is that this business is time-consuming, it costs a lot of meetings with other producers or retailers. A few interviewees mentioned that it is a utopia to feed Arnhem with local food. And what is the future of farmers in the Flevo polder who do not live close by a city like Arnhem? Besides these side notes are most of them enthusiastic *"It is going to grow, I see a future in that. And that's not just this agriculture, because we can't eat or bake from local agriculture only. We have to do 'and/and', I can see the power there. We will keep the big miller, but it's also good to specialize in local products."* (Baker)⁴.

All these developments are of great importance for the municipality of Arnhem, A tasks of the municipality is to create a responsible environment with a balance of flora and fauna, and agriculture is part of this environment. *"Food plays such an important role in our landscape, the producers shape our landscapes"* (Policy adviser 3)⁵ but some initiatives have the feeling that the municipality has a different interest. There are only a few people working on the topic of local food production and topics like climate adaptation and energy transition get much more attention. The interviewees mentioned that the topic of local food can be integrated into these issues, to create an interdisciplinary approach.

Credible

While an increasing interest in local food is noticed, the expectations of local food production are not based on tangible results and the number of experiments is particularly scarce. Many reasons for this low amount of initiatives are mentioned during the interviews. The initiatives that do exist showed that a good network and money are of key importance to becoming successful.

The low amount of initiatives is according to the majority of the interviewees partly due to the lack of usable land within the municipality. Part of this problem is that the municipality sold some land to project developers because of the housing shortage and to earn money. Where the municipality sees this as part of their business, the initiatives feel underprivileged. The other problem is the long term land rent. Both, initiatives and municipality face difficulties with this land rent. The municipality cannot stop the contracts and besides, it is difficult to change the rules of the contract. Which results in farmers close to the city but without interest in producing locally. Because most of the municipal-owned land consists of these long term land rents are there almost no opportunities for new initiatives to start their project on municipal-owned land. The only possibilities initiatives have is temporary land rent with attractive rental prices. But most initiatives want long term perspectives while they set up an initiative with the idea to make it till a company. *"You now have a liberal lease for one or six years, and then it actually stops. I'm running my business now and already thinking off where to go later, that doesn't work."* (City farmer 2)⁶.

Another reason for this low amount of initiatives are the many laws and regulations which form an obstacle to start an initiative, it also bothers the municipality: *"I do notice that people who have just a nice initiative come across rules that make it impossible to do anything and then they quit"* (Alderman)⁷. Most laws and regulation are set by higher authorities cannot be changed, for

example, the regulations about residual materials. Especially the smaller initiatives face difficulties with these legislations. *“I understand that it all has to be safe, but a lot of the regulation has tipped over and it kills everything. Regulations are mainly aimed at those very big companies, and hinder small companies.” (City farmer 3)⁸.*

More critique by the initiatives is expressed on this political system. Most mentioned are the many different departments. If they want to start their initiative they need to talk with many different people from different departments which is time-consuming. *“Since you’re a foundation, you’re a volunteer organization. Since you are dealing with poverty, you fall under the poverty policy. Since you are busy with the environment, environmental policy. Real estate. Change the zoning plan. Participation procedure. Before you know it you are a few years further and nothing has happened yet.” (Food forest)⁹.* All the interviewees admit that the system is slow and that it is tough to find the right person.

The last difficulty related to the low amount of initiatives is money. *“And money is an obstacle in all parts of life.” (Alderman)¹⁰.* The municipality is not able to distribute subsidies without limit. But most initiatives admit they need subsidies to start their initiatives. Besides, do existing farmers receive a lot of money, which makes it tough to step out the global system. They have a contract with Friesland Campina for example or high land rental which makes it difficult for them to change their way of farming.

Focusing on the small number of initiatives that exist show us that these people are the frontrunners of this transition. Most interviewees are aware of the fact that more people need to be interested and Arnhem must support these initiatives. *“The frontrunners need protection, otherwise they will not survive. But the whole peloton needs to follow, if they don’t, this transition will not succeed.” (Care farm)¹¹.* Key elements of the existence of the current initiatives and thus tangible results for other initiatives are a good network with both municipality and other initiatives, and money.

Specific

The results from the interviews show that it is not yet clear which steps should be taken in developing the technology to realise the expectations of local food. The municipality has no clear development plan and the initiatives know where they want to go, but not how to get there.

The municipality faces different challenges which need attention. For example, climate change and biodiversity. All these challenges need a place in the landscape, which results in tensions for policymakers. Clear is that it is tough for the municipality to make a decision. *“What is circularity within public space? We have signed up to sustainability. And you notice in projects that we are struggling with that.” (Policy adviser 2)¹².*

All the interviewees from the municipality told the same, implemented policies on local food production are missing. One of the reasons is that local food gets minimal attention to the departments of public space or green. *“A vision on urban agriculture is made, which is good, but valueless when nothing happens with it” (Alderman)¹³.* One of the interviewees mentioned that it walks right behind the energy transition, and we need to wait a few years (Alderman).

The interviewed initiatives all want a local food system, which is not surprising while they are working in this field. However, they have no idea how to realise this. In the end, they all believe, except for one interviewee, that the market needs to do it while it is a business between producers

and consumers. But in the meantime, they count on the role of the authority to help this transition. *“In the time that the global food market still exists, people need to be convinced to do it differently. And therefore we need to invest in all sort of things, which is capital intensive. I believe that the authorities need to boost this.” (City farmer 3)¹⁴.*

4.1.2 Policy documents

Besides examining the current state of the first process, 8 different policy documents are analyzed to examine the implementation of the first process: voicing and shaping expectations in the policy documents from the municipality of Arnhem. In this is looked at the municipality’s expectations, and compared them to that of the initiatives. In order to examine the first process, the documents were searched for words relating to the topic of local food production. According to table 7, it can be concluded that *“Eet je regio”* and *“Visie stadslandbouw”* pay most attention to local food, but in general, the documents do not show that much interest in voicing and shaping expectations.

TABLE 7: OUTCOME POLICY DOCUMENTS REGARDING PROCESS 1: EXPECTATIONS

	Eet je regio	Visie stads-landbouw	Groen Visie	Structuur Visie	Circulair Arnhem	Perspectief Nota		Meerjaren programma begroting
						2018	2020	
Pages	39	20	43	158	60	50	45	262
‘voedsel’	73	66	4	0	18	1	0	9
‘eten’	17	1	0	0	1	0	0	0
‘lokaal’	50	10	2	6	4	6	6	21
‘regionaal’	48	33	5	50	12	12	11	47
‘lokaal of regionaal voedsel’	75	36	4	0	6	0	0	2
‘duurzaam’	19	7	15	31	53	13	18	33
‘landbouw’	8	13	19	3	10	0	0	0
‘stads landbouw’	0	87	10	0	30	0	0	10
‘agrarisch’	2	2	6	11	0	0	0	0
‘produceren’	20	12	1	8	8	0	3	12
TOTAL	312	267	66	109	142	32	38	134
Hit per page	8	13,4	1,5	0,7	2,4	0,6	0,8	0,5

What stands out is the booklet *“Eet je regio”*, this document scores the best related to the topic of local food. However, it must be mentioned that this booklet is published not only by the municipality itself but by initiatives and the municipality as partner. The goal of this booklet is to stimulate local food production. It shows the results of interviews with people from the current existing local food network. And it shows the results of a survey held with potential consumers. It is therefore not surprising that this booklet has such high scores in this topic.

If a closer look is taken to the three vision documents developed by the municipality can be concluded that the first vision document about urban agriculture *“Visie stadslandbouw”* scores the best on the topic of this thesis. It pays attention to the vision and ambitions and how to achieve

their ambitions related to urban agriculture. As the next step after the publication of *“Eet je regio”* it is a positive development that the municipality translated the outcomes in a vision document. One remark is that this document is developed by people mainly from the field and only a few of the municipality. Besides, this document is not implemented in other visions or documents. It is only mentioned three times in the *“Groenvisie”*, of which two times in the appendices.

When a closer look is taken on the *“Groenvisie”* it has a low score on words related to local food. It mentions agriculture and sustainability a few times. But concluded can be that this document about the green structures of Arnhem has shown almost no interest in local food production. Which is unfortunate while public green and local food production can be perfectly integrated. This same low score is recognized at the *“Structuurvisie”*. ‘Regionaal’ is mentioned many times which shows the awareness of an integrated network within the region and the sustainability issue is mentioned a lot. But both items not in relation to food, this *“Structuurvisie”*, the zoning plan of Arnhem pays no attention to local food production.

“Circular Arnhem” mentions sustainability many times and also pays some attention to local food production and developing a network of it. But a side note is that this document is made by an external consultant. The good news is that they implemented the outcome as developing points in the *“Meerjarenprogrammabegroting”*.

None of the items related to local food was mentioned in the *“Perspectiefnota”*. Only some attention is paid to ‘local and regional’ however without a food relation. And sustainability is mentioned a couple of times. The successor of this *“perspectiefnota”* the *“Meerjarenprogramma begroting”* implemented the outcomes of *“Circular Arnhem”* and thus pays a bit more attention to the topics of local food. They implemented the concept of circularity, it is even one of the five main themes. However, within this main theme, a small part is dedicated to local food. And comparing the word count with the number of pages is it still not that much.

Concluded can be that the topic of local food production receives some attention within the municipality. They asked an external counsellor to explore the field of circular economy and the outcomes of *“Eet je regio”* are taken into account. In the bigger official publications, the topic only gets some attention in the *“Meerjarenprogrammabegroting”* and not in the zoning plan and *“Groenvisie”*. The expectation around local is not that aligned within the policy documents while the bigger official publications pay almost no attention to the topic. This is in accordance with the results from the interviews which also shows a minimal interest from the municipality. This also applies to the credibility of the documents, where the topic is not that richly present. The same goes for specific, only 1 document presents a strategy but this strategy is not implemented in other documents. Questionable is if developing a local food system is important for the municipality right now.

4.1.3 Role of the municipality

As mentioned in the alignment criteria it has an added value for the municipality to interfere in the topic of local food and to set some conditions. *“It adds value on almost all policy areas”* (City farmer 3)¹⁵. *“The soil is well maintained and the connection between city and land is restored.”* (Land estate owner)¹⁶. And the policy adviser of urban agriculture is well-willing to strengthen the component of local food for both food safety and a stronger local economy. But this policy adviser stands alone, and also in the council are only a few people interested in local food. The alderman admits *“I notice that I have my hands full with the energy transition, making sure you increase*

biodiversity and the quality of green space. And sometimes you can include urban agriculture and food production, but that is not always possible.” (Alderman)¹⁷. While circularity is embedded now, the hope is that this topic of local food will follow.

Many interviewees, both initiatives and people at the municipality agreed on the exemplary role of the municipality. They all said that the municipality fails at this point and could start by selling local food in their employee restaurant. Being an example also contributes to the credibility criteria of voicing and shaping expectations.

Although it is waiting for the implementation of this topic in the municipal plans, it is good to mention the contribution of the municipality *“more happens at the municipality than is seen by the people” (Policy adviser 1)¹⁸. They help initiatives to realize their ideas within all the regulations (Alderman). They help with the applications and planning permissions (City farmer 1). They lease the land for a reasonable price (City farmer 3). They coordinate in the POP3 subsidy (European subsidy) (Program manager). And they have a small budget to grant subsidies if possible (Policy adviser 1 and 3).*

All the people of the municipality mention the strategy of facilitating the existing energy. *“We don’t want to play the frontrunner or initiate all kind of things but facilitate the bottom-up initiatives where the energy arises” (Policy adviser 3)¹⁹. But initiatives mention that the municipality plays a crucial role in promoting local food and developing this and thus need to put more energy into it. The initiatives have a clear view of what the municipality can do to shape the expectations. A few things that were mentioned are:*

- Common grounds: the liberal leased land for a maximum of 6 years causes uncertainty while the initiatives do not know if the municipality is going to their land or not. If the municipality wants to accommodate food within the city, they need to protect their own municipal land. With introducing common grounds, the land is not considered as investments but as a sustainable purpose for the city of Arnhem. (City farmer 2)

- Co-creation: most of the municipal-owned land is leased with a regular contract, which is well protected. If the municipality has the ambition to contribute to the development of a local food network, they need to do it together with those leaseholders. Within a co-creation, they could work on a transition from traditional agriculture towards more sustainable and local. (Policy adviser 1)

- Foster smart innovations: within the densified area of Arnhem needs to be investigated how we can produce more food within the city borders. Thinking out of the box and smart technologies can help us. (Alderman)

- Producing local food as landscape management: many grounds get the purpose of nature. But nature-inclusive farming, or the other way around, farming-inclusive nature, gives many opportunities to retain and reinforce the landscape. (Land estate owner)

- Experimenting with less paperwork: when you apply for a subsidy, you almost become an official. It costs more time than money you receive. One interviewee suggests evaluating voluntary organisations once or twice a year. And asks for 1a4 of information, everything else is the responsibility of the municipality. (Food forest)

The last thing to mention for this process is that many interviewees mentioned the new environmental law, which will come into force in 2021. The opinions are prudent but most of the people expect some changes. The hope is that the social and physical domain comes closer together and personalized arrangements can be provided guided by the higher purposes. In this way, it will be easier to define if an initiative is possible while the framework is set. *“The new environmental law is a bit vague but the stories are nice, I hope that the work and the decision-making process becomes more integral “ (Policy adviser 2)²⁰.*

4.2 Process of network formation

The second process of niche formation is characterised by networks. The interviews showed that there are many active actors and some form a network, but the network could and should expand. All of the actors interviewed indicated they wanted to invest in maintaining the niche. But the network is expanding only slowly, and more actors are desirable. The policy documents had little attention for the network building and involved stakeholders, and terms like “facilitating” and “stimulating” were underexposed.

4.2.1 Criteria

Broad

The interviews show that forming the network is easy, people know each other. But the network itself is not that broad and initiatives are fragmented. As the network is a tool to achieve the desired goal, network building needs to be stimulated.

All the interviewed initiative actors knew many people in Arnhem who are also producing local food or want to become a partner. *“Yes, that is a natural outcome. If you say what you are doing, then enthusiastic people will follow. But, there is still a lot of work to be done, we are far from there yet.” (Pilot farm)²¹*. It is quite easy to find new interested people, some initiatives published an advertisement in the local newspaper, others organised a meeting. One of the reasons why it is easy to find others is the location, all people work in or close to the city. Some of the initiatives already work together and there even exist some kind of corporations. *“I wanted to sell bread and make a living. But also a collaboration with a local farmer, with the mill and to be able to tell the story. That went from about 20/30 kilos a week to over 100 kilos a week of local wheat that we were going to bake.” (Baker)²²*. They all admit that networking is the key to be successful, and they need other initiatives where they could work with. Also, the entrepreneurs are interested to become a partner in these collaborations. A good example is the Steenstraat where entrepreneurs work together.

Reality is that the network is quite small, almost all the initiatives that produce local food are interviewed. Besides, the network is fragmented. All around the city are initiatives, but people in the north do not network with the people in the south. *“It is possible to sell your local food but it is all a bit fragmented right now. You need to bring all these initiatives together.” (Policy adviser 3)²³*.

The broadness of the network stands in relation with the credibility of expectations, the network itself is not the reason why the network is small, it is the small number of initiatives and the difficulty to start a new initiative. Besides did one interviewee mention that *“the network is not the goal but a tool to achieve your goal” (Care farm)²⁴*. Therefore, the municipality needs to pay more attention to network formation as a tool to achieve a niche development.

Willingness

All the actors showed an interest in the network, and they wanted to invest their time and money in maintaining it. It is also interesting in economic terms to invest in the network when a particular is not currently that lucrative.

That the actors want to invest in the network is evident from the many stories they told about their ambitions and ideas for this network. Some drivers have been mentioned in the alignment of expectations. The key motivation for most of the actors is that it gives energy and enjoyment in

their jobs. *"It's a lot of fun to do, you see something new grow and you see other people starting to understand the story. And it's really about award others, instead of what's in it for me."* (Baker)²⁵.

One important remark is that it is no lucrative business, they all produce locally while it is their motivation. Some of them earn enough, and others not. Only one farmer admitted that it is also interesting in terms of money. He produces some local wheat and because he gets a true price for its wheat it is no big deal when the harvest is a bit less (dairy farmer).

Besides the personal motivation to invest in the network is it also interesting for the businesses. When initiatives cooperate with each other, the sales can grow and more products can be processed locally. This certainty is important for businesses, *"If there's nothing to be earned, he's not going to do it. But if you give the farmer a fair price so that he also earns enough, it's interesting. So make good and fair agreements in that chain so that everyone can earn honestly and not on someone else's back. That is sustainable!"* (Baker)²⁶.

Besides, interviewees have many ideas on how to maintain the network. *"And I've given them the advice: turn the cooperative into a brand, and simply attach ready-made products to that brand, which you can put on the market at bakeries."* (Baker)²⁷. Several corporations were mentioned during the interviews. 'Van akker naar bakker' is one of the initiatives of a farmer and baker who work together on local bread. Another person investigates the 'keten van ambachten' who wants to link different local producers and their products. The ambition is expressed to achieve shared landscape management. On a more abstract level do people come together and look for possibilities to maintain the network. *"We try to figure out how to get access to land, how can we change the lease construct, and how can we finance things together."* (City farmer 2)²⁸. Which also shows the willingness to expand the network in order to maintain.

Expanding

All interviewees dream of a bigger network and were corporations already exist, it is still a slow process. Some initiatives have ideas on how to expand the network, and the province even has a subsidy to stimulate this, although the meanings about this subsidy differ.

In order to maintain the network and realise the transition, it is important that the network expands. Some already started to attract others in the local chain. *"They'll get those mushrooms soon, and they'll have to dispose of them. We can take some of that, to make mushroom bread. And we do the same with the local brewer, we take his brush, to make a product out of their waste."* (Baker)²⁹. New partners are found, by linked in, by advertisements, by contests and by physically networking. Restaurants are interested in cooking with local food, and the canteen of the province for example. *"Last summer adopted the Provincial Executive together with the Provincial Council a coalition agreement which states that they want to market and strengthen local and regional products. And that we also want local and regional products in our company restaurant."* (Program manager)³⁰.

The network of local food producers is present but can always, and should, grow. This is a long way to go while many people all sitting on their islands. People need to work together and think different and that takes time. *"That as a person, but especially as an organization with people around you, you can take a step towards a more sustainable world. That as an organization you acquire a position in Arnhem's society and that you can do more with it than on your own."* (Sustainability platform)³¹.

One of the most important findings regarding the slow growth is that the initiatives miss processing enterprises to fulfil the needs of the consumers. Furthermore are missed the nature organisation. The general view of the initiatives is that those nature organisations are rigid and not willing to think about nature inclusive farming or want to participate in those projects.

Some other interviewees thought about innovative ways to expand the network. A few interviewees think you need a successful story of a few running businesses *“They form a little radar in the whole chain, so if that gets off the ground well, you also take those other parties with you.”* (Policy adviser 2)³². Or connecting other services to food *“I think it's interesting to see how you can link other services such as education or care to food.”* (Care farm)³³.

The province of Gelderland stated that a boost of local food production is needed to strengthen the region. Therefore they work on taskforce short chains and the city deal. One tool as part of this task force is mentioned many times during the interviews, the POP3 subsidy. This subsidy is the third round of the European subsidy programme for the development, sustainability and innovation of the Dutch countryside. The province of Gelderland has used this subsidy to strengthen the short-chain. This in addition to the ‘Gelders kennisnetwerk voedsel’ where municipality mentioned they want to do something with local food but have no capacity for it. This POP3 subsidy strengthens the collaboration between municipalities and regional products.

Opinions about this POP3 are mixed, some are positive about it. But in words of the most interviewees ‘a whole mountain of paperwork and bureaucracy’. At the one hand, it is nice to receive European money and that the municipality is the coordinator of the application. But on the other hand, it costs a lot of paperwork and money is received afterwards, which makes it unusable for initiatives to start with. They need a running business in order to make the investment costs and to show the EU they have the right to receive the money. Besides is questionable what the impact is *“I'm curious to see what you get out of that POP3, all those local food networks are supported, but what is the final impact? I'm really curious to see if this will really make a difference.”* (Care farm)³⁴.

The municipality also has their doubts about this POP3. Where one policymaker doesn't want to actively boost the transition and thus participate in this subsidy application, is another policymaker tired of all the paperwork.

4.2.3 Policy documents

The 8 policy documents were examined in light of the second process: network formation. The review looked at the mentioned network or stakeholders to see if the importance corresponds with the interviews. It also examined if the documents say something about the willingness to facilitate or support this network. As shown in table 8 it can be concluded that *“Circulair Arnhem”* pays most attention to this second process of network building.

TABLE 8: OUTCOME POLICY DOCUMENTS REGARDING PROCESS 2: NETWORK

	Eet je regio	Visie stads-landbouw	Groen Visie	Structuur Visie	Circulair Arnhem	Perspectief Nota		Meerjaren programma begroting
						2018	2020	
Pages	39	20	43	158	60	50	45	262
'netwerk'	5	3	19	123	24	14	20	51
'belanghebbenden/ stakeholders/ producenten'	38	5	22	5	28	9	1	41
'gemeente Arnhem'	3	0	8	20	45	10	11	72
'faciliteren'	0	11	1	5	12	6	8	15
'stimuleren'	5	12	2	4	19	6	6	34
'ondersteunen'	10	2	2	12	15	2	13	21
TOTAL	61	33	54	169	143	47	53	234
Hit per page	1,6	1,7	1,3	1,1	2.4	0,9	1,2	0,9

When a closer look is taken to the policy documents stands out the document "*Ciculair Arnhem*". This document mentions the stakeholders and the network a lot, and the importance of facilitating this. "*Circulair Arnhem*" is made commissioned by the municipality to examine what they could do to implement the concept of the circular economy within Arnhem. This advisory report clearly states that facilitating the network is important for the development of new plans.

The two documents "*Eet je regio*" & "*Visie stadslandbouw*" which paid most attention to the first process: voicing and shaping expectations also show the importance of a network formation. A closer look taken to these documents shows that "*Eet je regio*" pays attention to the many local food initiatives but not on the development of the network formation. It is a document to give an overview of the current state of affairs. The "*Visie stadslandbouw*" pays some attention to the development of the niche but the document is really small. Besides they pay little attention to the importance of the network. One of the three stated ambitions is facilitating and connecting, but the content is not innovative and ambitious. It states they want to contribute to the bottom-up movements and want to develop a 'meerjarenprogramma' in the field of urban agriculture and regional food. But the ambition to create and facilitate the network of initiatives is missing. And questionable is if this new 'meerjarenprogramma' to conduct this vision isn't a watered-down version of the bigger municipal "*Meerjarenprogrammabegroting*"?

The "*Structuurvisie*" mentions 'network' a lot, but a critical look at these hits show that they mostly mention the physical network of infrastructure or nature than the more social network of people. It also pays attention to the support of the network but lacks concrete examples. It is not clear how to support this network and what the role of the municipality is.

The "*Groenvisie*" pays minimal attention to this topic of the network, and almost no attention to the role of the municipality. Based on these results can be concluded that this vision is probably a more top-down document which presents the borders of public green development.

Comparing the two perspectiefnota's show that the newest version pays more attention to facilitating than the older one, however, the better scores are not that remarkable or impressive. The follow-up document "*Meerjarenprogramma begroting*" shows a lot of attention to network formation and facilitating this. Due to the total number of pages, it has the same score as the perspectiefnota's.

Overall can be concluded that the policy documents pay less attention to network formation than is experienced in the interviews. Where the interviews show that the municipality is a contributing actor in the network, do the documents pay little attention to the network, its partners and the importance of them. Besides is paid little attention to the facilitating role of the municipality in the network development and is the ambition to create a whole new network missed.

4.2.3 Contribution of the municipality

A closer look at the contribution of the municipality in formatting the network shows that the initiatives most need a connecting partner. The municipality as an overall player can bundle all initiatives and prevent small initiatives from being stranded. "*See where the common denominator is, connect those. The municipality can bring things together by providing accommodation, arrange meetings, etc.*" (Baker)³⁵.

Within the role of the connecting partner is mentioned the policy adviser of urban agriculture many times. This man is a real contribution is this niche development, he is positive about many initiatives and "*he helps you within the world of the municipality*" (Care farm)³⁶. Because he is openminded and enthusiastic, he stimulates a lot of initiatives which is helpful for the municipality while they have not the money to subsidize everything. "*You can't subsidize everything and say oh then we'll subsidize this store completely. Then it won't be healthy either, but you can explore how you can stimulate it. And we're just very lucky with this policy adviser on this subject.*" (Alderman)³⁷.

This policy adviser also participates in the 'kernteam stadslandbouw overleggen' which is a meeting with several partners related to local food to hear from each other what is happening around local food and put the topic of local food on the political agenda. And it is a moment for the municipality to hear what is not going well and if they can help with it. "*And sometimes you can arrange things a little faster and better as a municipality or alderman. So that offers opportunities to do something.*" (Alderman)³⁸. While it is a focus group, not all the interviewees know about or participate in these meetings.

A similar meeting like this is organized in the Spijkkwartier but only ones, one of the interviewees expresses that this is useful in stimulating the network "*but a follow-up is needed to make sure there is progress. If the progress drops, people drop out*" (Baker)³⁹. One of the recommendations is thus that these meetings are organized on a structural base. Some other recommendations which were mentioned are for example organizing events, so the local food producers are recognizable (Alderman). Organizing network meetings like the 'klimaat cafe's' (sustainability platform).

Although opinions about the POP3 are mixed, it is a contribution of the municipality in this transition. It can be placed in all three processes of niche formation while it contributes to the credibility of initiatives but also to the learning opportunities. Anyway, it is placed here in the network process while it stimulates the cooperation between different players. As partner and coordinator of the subsidy application, they play an important role in facilitating the network.

4.3 Process of learning

The last process of niche formation is characterized by learning. The interviews showed that niche innovation is mainly focused on the social and environmental aspect of the transition but not really on the economic and technical optimization and that more diversity in learning can be pursued. Over the years more knowledge is gained regarding the production of local food, however, the end goal is not yet achieved and opinions differ about the direction of this niche formation. In this process, people did learn a lot about the underlying norms and thought about changing the rules, which shows that the second-order learning is highly developed. While people learn a lot in the field, less attention is paid to learning in the policy-documents. It is only mentioned a few times in the 8 documents. Where most documents mention the need for a transition, the support has been neglected in these documents. In both, interviews and policy documents, words like “experiments” and “pilot projects” are underexposed.

4.3.1 Criteria

Diverse

During the interviews, the environmental and social components are mentioned the most. But the business side of the story and the ideas on how to earn money were mentioned less, even as the technical and logistical side of this new system. From the interviews, it can be concluded that the alignment between the technical and social aspects is underexposed.

Environmental awareness is the main reason and believes behind the need for a transition of the current system. This drives the initiatives to start and develop their businesses. *“I believe that we need to move to a whole new way of producing food. More regional, closer to the people, less dragging around the world, the bond between consumer and producer, shorter chains and closed cycles.” (Sustainability platform)⁴⁰*. Also, the social component of this niche development is developed and of interest for the initiatives. All the interviewed initiatives mentioned the joy to work with others and the need for this network to develop the niche. *“Our story is that we have to do sustainable business. Are we only in it because we want to earn money, or shall we award others which gives us a much nicer partnership?” (Baker)⁴¹*.

Less environmental interest is noticed within the municipality. But the place of food within their city boundaries is rising in the context of sustainability thinking. Not all municipal officials are interested at this point, but some are personally motivated or want to answer the needs of society. *“I believe we need to do things more locally then now, but it's tricky. It is impossible to have our own food as a city, off course we need the environment and the world for things. But we can start small, and increase the impact.” (Policy adviser 2)⁴²*.

Where environmental and social knowledge is present, it lacks economic and technical knowledge. The alignment between the social and environmental ambition and the business side to make it a success is missing. The initiatives feel not taking seriously: *“I think there are a lot of reasons to take this very seriously. But too often, I have the feeling that it's seen as a nice leftist green hobby, including urban agriculture and regional food.” (City farmer 3)⁴³*. But truth is that it is not a lucrative business. *“I would love it if my partner could join me, but right now we need his income.” (City farmer 2)⁴⁴*. And most of the interviewees admit that they cooperate with others and their products, while it is not financially interesting and takes time. Part of this problem is the lack of good infrastructure on local scale.

First-order

The first-order learning objectives of achieving this niche-development are frequently mentioned. Both initiatives and municipality desire the formation of the niche and a changing food system. And while they know that networking is key, they don't know how to change, and there is no strategy. It lacks logistics and the consumers are not ready for it, but there is also the lack of ambition from the side of the municipality which causes a missing strategy.

One thing all interviewees know in this process is that networking is one of the keys to becoming a successful initiative. *"I've learned that networking is very important, that may always be true for entrepreneurs. I noticed that my network within the municipality is important, just showing your head at all kinds of meetings and starting the conversations."* (City farmer 3)⁴⁵. And within the cooperative it is really important to be transparent, who earns what from what. Where networking is a tool to achieve the goal, more is needed to develop this niche.

Regional food is not at the point where it should be, and some of the results are disappointing *"I think we have caused something in Arnhem, but in terms of regional food, I had hoped we had achieved more."* (City farmer 3)⁴⁶. From the interviews, it is clear that no one knows how to change the system. One of the reasons is the repetitiveness of knowledge. More knowledge about the technical process is needed.

Not many initiatives have thought about a convenient and innovative distribution system. It is more like back in time *"we take their beer brush and feed it to our cows, but these are small quantities. Normally I feed 700 kilos of beer-brush a day, and they have around the 300 kilos every 2 weeks. We pick that up now to help them a bit, but in principle that can't be done."* (Dairy farmer)⁴⁷. This lack of good infrastructure bothers them. A few initiatives mentioned that the local distribution system disappeared, which is really needed in this new system of local food. *"Regional food is interesting, but the whole logistics doesn't exist anymore."* (City farmer 3)⁴⁸. Part of the desired infrastructure is a place to process their local products. While most consumers want easy food or ready to eat food, it would help if they can cut the vegetables for example. Or process their harvest. *"If we expand our demand, we want to process our products. Sometimes we have a lot of harvests and we want to process it for chutneys."* (Care farm)⁴⁹.

This infrastructural problem is difficult to tackle because the initiatives are small and face difficulties of competing with bigger networks. *"There is one thing that the supermarkets have mastered very well, and that is their logistics. If you want to organize this locally then you also have to make sure that your logistics are organized just as tightly. And no that is not the case right now."* (City farmer 3)⁵⁰.

Related to these problems of infrastructure is the small number of consumers who buy their products. All the interviewed initiatives desire an expand of consumers. A counterforce of a bigger scale, and related to the consumers, is the prize of local food. *"As long as you and I can choose the cheapest food, it's a very difficult story. You can stimulate and promote but the consumer thinks very differently. And it only works if the price incentive is really going to change, yes and that's up to the government and Europe."* (Program manager)⁵¹. True pricing of the food is needed to create a change. A few initiatives mentioned the low prices of food as a problem that needs to change. *"It requires a completely different design of our food system. I'm just paying the farmer a very fair price. I don't even negotiate with the farmer, if he says I need 1.50 for that head of lettuce, he'll get it from me. And that's different from the supermarkets of course, they buy those things for 29 cents, so they*

can sell for 39 cents." (City farmer 3)⁵².

At the side of the municipality is notified less ambition to realize this local food system. They want to become more sustainable, meet the criteria and join the societal trends. But compared to the initiatives they have less innovative ideas on how to realize this niche development in the first place and the transition in the second place. In the interviews where mentioned some point of critique towards the municipality. The first point of critique is that government officials do not dare to innovate. *"If you find a nice place to innovate you see that government officials are afraid of innovation. Because who is responsible if it goes wrong, and who is going to pay that?" (Food forest)⁵³*. While all the initiatives mention that everyone needs to be innovative, then the trend of local food is irreversible. Being innovative is a mission for both the municipality as the initiatives. If initiatives are innovative within the strategic development plans of the municipality it can contribute to the implementation of the policies in practice. *"If the goals of initiatives match the policy goals of governments, then you have a strong point and you can set things in motion in terms of policy. (Care farm)⁵⁴*. Not all the interviewed officials are afraid of innovation, some want to give it a try. They mention that an initiative is intended to be an attempt. If it is successful it boosts the process, and if not, we can try something else *"that's an occupational hazard" (Policy adviser 2)⁵⁵*.

Another point of critique is the many rules and regulations. *"Because of our attempt to have a society that is not subject to risk. A new rule is added with every mistake". (City farmer 3)⁵⁶*. This overregulation is there for a reason of course and for the bigger companies no big deal. But the smaller initiatives and companies cannot fulfil these regulations. Also, the municipality admits that all these new rules counter innovations. They are searching for ways to shape the prerequisites, but without shutting out possibilities. *"The market must remain balanced, but people who want to change must not be put at a disadvantage." (Alderman)⁵⁷*. One of the policy advisers recognised that rules and regulations lag behind the innovations which make it harder for initiatives to realise their ideas (policy adviser 2).

Second-order

The second-order learning objects which reflect on the strategy are mentioned a lot. Both from the side of the municipality as from the initiatives. They show a lot of reflections on the current global food market and on the authorial system. The underlying norms are highly developed, and they are questioning these norms and want to change the rules.

The bigger 'system' is mentioned a lot during the interviews. This system hinders the development of innovation, the system is slow and dependent on a certain interest which cannot be deleted or changed, and the system is all about money. *"Actually, we are all part of this system, that brings democracy with it. So, we cannot blame someone or something. But truth is that is a bottleneck of the development." (Policy adviser 1)⁵⁸*. The municipality also knows that the authority is a logging system and changes go slow, every change in the system has its consequences somewhere else. Where the municipality is not able to change this bigger system, the interviewees pin their hopes on the national government. Mentioned is the new environmental law which comes into force in 2021, which hopefully brings together the departments, fastens the policymaking process and results in better maintenance of the public spaces.

More interesting is that is many interviewees mentioned that this system we have, is not robust and instable. *"We eat less than 20% of the products produced by Dutch farmers. Only one mistake can disrupt the whole chain and then we don't have any food at all." (Councilor)⁵⁹*. Some of the

initiatives told that the economic system needs to change “*the economic model no longer meets people's needs and demands..*” (Food forest)⁶⁰. One of the disadvantages of our optimized system is the dependency on unstable pillars. The supermarkets have a lot of power in the food branch, if they fail there is no more available food within a week. Locally produced food must be taken seriously. “*I think it's a bit tricky that for something so important we have to rely on clubs who are only concerned with shareholders value and profit maximization.*” (City farmer 3)⁶¹.

Besides all those bigger things that need to change, did one of the officials ask the question how far we should go with this transition? “*Where lay the border for sustainability and local production? Can you achieve all the goals you have set? Those set and achieved goals can conflict*” (Alderman)⁶². This critical note encourages to think about the future of food and shows it is a difficult issue to deal with. But overall, all the interviewees have their hopes to realize this more local-oriented food network in the future. And that local food becomes accessible in all layers of society. In order to achieve this “*We need people who dare to take the risk!*” (Alderman)⁶³.

4.3.2 Policy documents

The process of learning within the policy documents is difficult to analyze, while you can easily scan the document on the topic and the network building, the learning part is more about processes and underlying things, which makes it difficult to scan for search terms. By focussing on terms like transition and learning some results on the process of learning in the policy documents were attempted at. Terms about facilitating are used to say something about the willingness of the municipality to develop this learning. “*Experimenting*” and “*pilot projects*” are used to examine if the municipality focusses on learning by doing. As shown in table 9 it can be concluded that the topic of learning is underexposed in all documents, but that the concept of transition is mentioned a lot. “*Visie stadslandbouw*”, “*Circulair Arnhem*” and “*Perspectiefnota 2018*” pay most attention to the third process according these search terms.

TABLE 9: OUTCOME POLICY DOCUMENTS REGARDING PROCESS 3: LEARNING

	Eet je regio	Visie stadslandbouw	Groen Visie	Structuur Visie	Circulair Arnhem	Perspectief Nota		Meerjaren programma begroting
						2018	2020	
Pages	39	20	43	158	60	50	45	262
‘transitie/verandering/ontwikkeling’	10	15	21	53	59	116	28	84
‘leren of geleerd’	0	1	2	0	8	5	5	7
‘gemeente Arnhem’	3	0	8	20	45	10	11	72
‘faciliteren’	0	11	1	5	12	6	8	15
‘stimuleren’	5	12	2	4	19	6	6	34
‘ondersteunen’	10	2	2	12	15	2	13	21
‘pilot projecten’	1	0	0	0	3	2	1	19
‘experimenteren’	2	2	0	3	2	0	0	2
TOTAL	31	43	36	97	163	147	72	254
Hit per page	0,8	2,15	0,8	0,6	2,7	2,9	1,6	1

The booklet *“Eet je regio”* is clearly not focussed on learning in general and it mentions transition only a few times. There is also no focus on the role of the municipality of Arnhem within this process of learning by experimenting. This document mainly focusses on the current initiatives and analysis of the current practices.

The *“Visie stadslandbouw”* is also not focussed on learning from the past and exploring directions. The document is mainly a vision which mentions where they want to be. Within this vision, they pay attention to facilitating a process in general but not learning in general or learning by experimenting.

Both larger visions of the municipality: *“Groenvisie”* & *“Structuurvisie”* mention that a transition is happening but do not talk about learning as part of the process. They are more top-down documents how the environment and outer space should be. They also pay no attention to support this transition or give room for experimentation.

The document of recommendations *“Circulair Arnhem”* scores best on learning, but they still mention it only 8 times in the whole document. Besides, they pay attention to the need for a transition. And they admit that the municipality can facilitate this process. Just like the other documents, they almost pay no attention to experimenting or pilot-projects.

Interesting are the two *“Perspectiefnota’s”*, Where the document of 2018 pays a lot of attention to the changes and transition processes it seems to be disappeared in the *“Perspectiefnota 2020”*, the newest version of the municipal direction. Except for ‘transition’, the document of 2018 pays little attention to support this transition or the idea of pilot projects. The document of 2020 pays some more attention to the support.

The follow-up document of the nota of 2018 is the *“Meerjarenprogrammabegroting”*, remarkable is that it mentions a transition even less than the *“Perspectiefnota”* while the document is 5 times bigger. This also explains the relatively high scores on supporting and facilitating, but regarding its pages, these numbers are not that impressive. A more interesting outcome is that this document pays most attention to ‘pilot projects’.

Concluded can be that the topic of learning is underexposed in all the 8 documents, but that half of them pay attention to the transition. *“Circulair Arnhem”* pays most attention to supporting this transition. That learning and experimenting is underexposed in these documents is not in line with the interviews. Where the interviewees mentioned a lot of issues in the first and second-order learning face, it is not topic of interest in these documents. That the topic of experimenting and pilot-projects is underexposed is in accordance with the results from the interviews, where it also gets little attention.

4.3.3 Tools of the municipality

In this process of learning about local food, it is first important to mention that food production is a new topic for the municipality. *“Waste, for example, has traditionally played a major role in the municipality. Facilitating the collection of waste materials already happens perhaps 100 years, and this theme is quite new.” (Sustainability platform)⁶⁴*. For them, it is also a process of learning and learning by doing.

The municipality, for example, talks with the farmers who currently produce for the global food market. *“With the farmers, we go on an excursion to a biological farm which is located on the same*

soil as they are located.” (Policy adviser 1)⁶⁵. In this way, they work on their ambition to get better soils and connect the farmers with the citizens.

Another example is of the department green spaces, they organize tours with local residents through the public parks to hear their comments and recommendations to improve the public spaces and maintenance. *“Those groups often do some smaller jobs on the organised ‘working days’ which helps to involve the citizens. Besides, it can contribute to the organisation of bigger events”* (Policy adviser 2)⁶⁶. At this moment are these walks not focused on local food production, but if the citizens think it is important or initiatives need some space this can be an opportunity to look where local food production is possible in the public spaces of Arnhem.

Truth is that *“the municipality can play a role in promoting regional food, and if it is their ambition they need to accelerate this.”* (City farmer 3)⁶⁷. As shown in the diversity of knowledge is the technical part of this transition underexposed. Initiatives mentioned that the municipality needs to and dare to make choices. While the money can only be spent ones they need to think about this transition and stimulate the initiatives to gather more knowledge. *“We would like to have electric bikes in the city centre. But then I do need business space close to the centre. On this relatively expensive ground, I can’t compete with others. But dear municipality, you also sponsor parking garages because you want your retail in the city centre to be good. So then you can do this too, it is a choice.”* (City farmer 3)⁶⁸.

The municipality also mentions that they are looking to possibilities in which they can steer the transition by facilitating and rewarding rather than forcing, but look broader than just money. *“Important is that people who want to change are rewarded, but the market needs to be balanced, closing everything the market leaves with subsidies is not realistic..”* (Alderman)⁶⁹. Where the municipality mentions they want to facilitate by rewarding it is not experienced like that by the initiatives. Not all of them have the feeling they receive the space to experiment.

One of the tools the municipality could use to give them this environment is a protected space. This could be physically but it became clear that there is not that much space left. During the interviews are mentioned several options to provide room for experimentation. The first option is the 400 ha. of municipal-owned land, in the future when farmers stop or nowadays with co-creation. The second option is the public space, one example is the urban agricultural boxes in Klarendal. The third option is Park Lingezen, which is located between Arnhem and Nijmegen. This is a unique place to innovate and experiment. The difficulty is that this area is maintained by many parties and not just by the municipality of Arnhem.

Another form is a more regulative protected space where initiatives face fewer difficulties with regulations. One of the policy advisers already suggested an *“exemption of the zoning plan for urban agriculture activities”* (Policy adviser 1)⁷⁰.

5. Discussion

5.1 Theoretical reflections

5.2 Methodological reflections



5.1 Theoretical reflections

This section discusses the findings gathered from the interviews and policy documents. The theoretical reflection combines theory, the interviews and policy documents in order to shed light on the current academic debate and to put this research into context, in order to explore potential overlap or additions. I attempted to limit this section to a discussion of those results that are of value for either research or practical implications. This reflection follows the line of my sub-research questions.

Sub-research question 1: municipal role in voicing and shaping expectations

This research shows that stakeholders' expectations do not fully match the promises by the innovators. These different expectations are a challenge for both, initiatives and municipality. When those two parties are not on the same line, the municipal support will not fit the development of the initiatives. A closer look at the first criterium shows that the expectations were better shaped at the side of the initiatives than at the municipality. These results were as expected, as the interviewed initiatives are all working in the field of local food, their expectations were generally the same. And as the municipality lacks interest in local food, their expectations are not the same. As the municipality lags behind the initiatives in this area, it was difficult to find a municipal role in this alignment criterium. There was a decided mismatch in the municipal role in shaping these expectations, as the municipality felt like they were being given too many roles by the initiatives. The municipality's response to this is that they have limited influence and some new policy domains in which they have to learn and develop. It is not surprising that the outcome of the research is different than stated in the literature. Where the literature describes an ideal situation, the reality is always less developed.

While people are becoming more interested in local food, the results are not that credible as experiments are scarce. And while this result was in line with expectations as a local food system is desired but not yet there, the result is of course disappointing. Initiatives mainly mention barriers they face regarding the municipality. The institutional system is slow and they face many regulations. They also face difficulties in obtaining land, 'relocation stress' is mentioned many times by the initiatives. Which is a relatively new phenomenon related to this topic of food production, it means that it is tough to start an initiative, as they are uncertain about the existence of their initiative in the long run. It was not mentioned in the theoretical framework as it is an outcome of the result, short term leases. Another outcome of this research is that network and money are important for the credibility of an initiative and should be a point of focus for the municipality. The theory, however, didn't mention the importance of money. The literature does mention the importance of a network (Smith & Raven, 2012) but not as part of the credibility of an initiative. This unaligned result shows that it was difficult to measure this criterium as it was tough to figure out if their expectations are based on tangible results. Some of the initiatives existed for a few years and therefore have credible expectations, but others are new or not even started. And because all the initiatives are frontrunners they base their expectations mainly on ambitions rather than successful stories. Related to this difficulty is the fact that the theory mainly mentioned the number of projects, but the criterium "credibility" includes more than just the number of projects, research shows that it also includes experiences, expectations and desires.

The initiatives all had some ideas on how to develop the technology, but these ideas were very diverse in nature. This can be explained by the great diversity of small initiatives, all with their own ideas for a better world, and waiting for success rather than a successful plan of the niche

development. This criterium provides opportunities for the municipality to support this niche development. The municipality can add a lot by developing a vision. However, their timeframe runs behind that of the initiatives and they are always late in implementing this niche development in their plans. The initiatives mention that the municipality has difficulties with choosing one direction, where the municipality mentions that entrepreneurs think sectorally, and only about what they need. From this research can be concluded that the municipality needs to develop an integrated vision which looks to the bigger picture, to the environment and its citizens. This advice as outcome of the interviews is in accordance with the literature that states that it should be clear which steps are needed in developing the technology to realise the expectations (Hoogma, 2000; Manders et al, 2018; Smith & Raven, 2012).

What is the municipal role in voicing and shaping expectations of a local food system?

It was concluded that the municipality has a task and legitimate interest in creating a responsible environment where the topic of food is included. Where the expectations of this local food system are shared among the niche initiatives this is not the case at the municipal level. Therefore, the municipality needs to express its desire and ambition for a local food system. Besides, there are very few concrete examples present within Arnhem to inspire others to join this local food system. The municipality has a task to support the current frontrunners so that the success becomes visible. Another task of the municipality is to overcome obstacles faced by the initiatives. Initiatives benefit from long term land rentals, fewer rules, regulations and subsidies. Furthermore, there is a role for the municipality to 'practice what they preach'. It is observed that it is not clear which steps should be taken in the development of the niche. Through their municipal strategies, they can include the topic of food in their plans and develop fitting policies on local food production.

Sub research question 2: the municipal contribution to network formation

Data shows that the network exists, and resources are exchanged. Actors who are already involved form a network which is supported by the existing cooperatives. Because the network is relatively small, they need to expand, both in number as well actor types. These results were as expected as this process is still in transition and more people and initiatives need to follow. Besides, the municipal contribution is better than expected, the people at the municipality who work on this theme are enthusiastic, and almost every initiative mentioned the name of the policy adviser who works on this topic. However, a great difference was noticed between the practice of this one policy adviser and the policy documents. This shows that the municipal contribution is still small, and the municipality should focus more on the building of a network. It was easy to measure this criterium of the network building, as this was really tangible for the interviewees. But the criterium "broad" was too vague because the term is subjective, and the growth of a network always contributes as long as the goal is not yet achieved. The results also showed some overlap between the broadness and expanding the network. Again, is measured the number of initiatives rather than the different actors involved.

Looking at the willingness as the second criterium, the results show that this criterium is highly developed. All the interviewees are willing to invest in maintaining the niche. For the interviews with the initiatives, it is not surprising as they really want to develop this niche and therefore work together. A bit more surprising is that all the authorial interviews also mentioned they want to invest in maintaining the niche, all for different reasons, but still willing to invest. However, this is not in accordance with the policy documents or with what happens in practice. They do not

organise events such as network meetings in the field of food. One finding is that a small network exists in the form of a focus group, they come together four times a year. While it was set up by frontrunners, the municipality is now part of this focus group. Where the focus group is a meeting of invited guests, it is important to have other public meetings such as the currently organized climate café, where people could come together and share ideas and knowledge. The initiatives show they can form the network by themselves without help from the municipality. The initiatives mention that the task for the municipality is to accommodate this network. While the literature states that a network is important in this niche development (e.g. Hofman, 2002; Schot & Geels, 2008; Caniëls & Romijn, 2008; Jain et al, 2017) it is also mentioned by the initiatives as the key to becoming successful. Therefore, it is important for the municipality to further accommodate this network building.

The third criterium, expanding, is about bringing in new niche players and expanding the network. This research showed that it is difficult to bring in new players. This was not expected, as all the initiatives are enthusiastic. Reality shows that the initiatives are small and lack the power to influence bigger players. There is a task here for the municipality to contribute to this expansion. One of the tools they have is the POP3 subsidy from the EU. As they coordinate most of these requests, they can form networks and invite other big players to join the request. But, the data shows that opinions about this POP3 differ. One other interesting finding from the data is that the province mentioned a focus on the city deal, but neither the municipality nor the initiatives mentioned this option. This clearly shows that all layers are working on the same topic, but do not integrate their plans, which is a missed opportunity in this process of network formation.

This result makes me think if this second process of networking is maybe the most important process of the three. They can have a clear vision on how to develop the niche or have plenty of options for experimental learning, but if the network is not there they won't be able to influence the regime. This outcome was not expected as the theory of SNM mentions that all these three processes are required to become a successful niche (Raven, 2005, 2006). Where the interviewees said that the niche needs to function on its own to influence the regime, the first and third processes are perhaps subordinate to the second process of network formation.

What is the contribution of the municipality of Arnhem to the formation of a network of food initiatives?

While all the initiatives know each other the network remains small. The municipality can contribute to this network formation by organizing network events so that other interested people can meet the current existing initiatives. The current network is also fragmented, through meetings they can bundle together and learn from each other. It was concluded that all the initiatives are willing to maintain and invest in the network. The municipality currently uses the energy within the network to maintain and expand it. Besides this, the policy adviser of urban agriculture is of great value for maintaining this network as this person connects the different initiatives and helps the interested people. Additionally, they can give the initiatives a stage to promote themselves and expand the network, in this way, the municipality shows that they want to invest in the niche. Where the network is expanding slowly, investment from the municipality can help in expanding the network. Currently, minimal attention is given to network building and facilitating in the municipal strategies. In addition, the POP3 subsidy can contribute to expanding the network, as initiatives get the chance to start their project while being supported by the municipality.

Sub research question 3: municipal tools in stimulating learning

The first criterium of this process, the diversity, was most interesting for the process of learning. The results clearly showed that the technical and social aspects of learning were not aligned. With a clear focus on the environment and the network, the social aspect was much more present. The technical aspects were present within the initiatives regarding their initiative and food production, but knowledge on the development of this niche was missing. I had expected this to be more aligned, but most of the initiatives had just started their projects from an ambitious perspective and had no idea on how to realise this network. When comparing this to the literature becomes visible that the initiatives are less interested in the economic optimization than expected from the literature. Where the literature states that the learning process should not be focussed just on the techno-economic optimization but on alignment between the technical and social (Manders et al, 2018; Smith & Raven, 2012; van der Laak et al, 2007), this research showed that these initiatives are way more interested in the social part of the transition. They may pay even not enough attention to the techno-economic optimization, while most initiatives are not that lucrative. Where the municipality has many other tasks besides stimulating this niche development, they show less environmental interest than the initiatives do which results in a mismatch. Where the municipality tries to stimulate the learning process it is not experienced like that by the initiatives.

The outcomes of first-order learning were interesting for the municipality, as the initiatives faced a lot of barriers which could be overcome by the municipality. These results were therefore useful for making recommendations. Again, was mentioned the importance of networking, but also the lack of appropriate distribution for local products. The most important finding is that the municipality needs to take some risks and have the courage to approach the situation differently. Using their 400 ha. of municipally-owned land is mentioned by the initiatives, for example. They have the opportunity to take a big step in the development of a local food system. This can be only realized when there is growing support from within the municipality. The outcome is in accordance with the literature which states that they learn about the effectiveness of certain technology to achieve a specific goal within a given set of norms and rules (Hoogma, 2000). But this criterium corresponded to the credibility criterium of the first process. More specifically, the limitations they face in developing their initiatives and the niche could be placed in both criteria.

According to the results in the last criterium, second-order learning is highly developed. The results show that a focus on the long term is needed, that short wins will not achieve these radical transitions. The current existing initiatives are making a good start towards a bigger change, they have the knowledge and ambition to achieve a local food network. They think big and out of the box. An incremental change of the system, where we to continue as we are now, will not reach the transition. Although is in accordance with the literature it is doubtful if the gained knowledge about the underlying norms and assumption contributes to the development of the niche or gives a reason for the municipality to focus on it. The research didn't provide any reason why the municipality should stimulate this second-order learning.

One recurring finding of this research is the underexposed topic of protected space within the interviews. In the literature, it was argued that this protected space allows experimentation to learn about new technology and enhance the rate of application (Kemp et al, 1998; Schot & Geels, 2008). Jain et al (2017) mention that innovators can benefit from new learning opportunities, in practice there is no formal protected space, the municipality merely turns a blind eye to

developments, accepting it until someone presents an objection and ignorance isn't possible anymore. This result is not in accordance with the literature which states that this third process of niche formation contains experimentation-based learning into the possibilities and constraints of innovations to become socially embedded (Kemp et al, 1998). While the results don't mention the concept of protected space the question rises if the concept of protected space fits in the three criteria or if those criteria fulfil the content of the learning process. Another explanation is the fact that SNM is a research tool and a policy tool. As a research tool, it is useful in assessing the status of niche innovation in the local food sector. However, SNM as a policy tool is not yet applied in Arnhem which leads to a mismatch between reality and theory.

Which tools are used by the municipality of Arnhem in stimulating the learning process of niche initiatives and their formation?

Currently, the municipality neither supports the diversity and first-order learning nor the development of protected spaces. It was concluded that the technical and economic aspects of the learning process lag behind the environmental and social process. The municipality, therefore, needs to pay more attention to the alignment of the learning process, and the underexposed topics. One of the tools they could use is a protected space. When there is space to experiment, physically or theoretically, people can learn from practice. In this way, the problems faced in realizing the goal can be removed. It is required of the municipal departments that they work together and dare to experiment. While the second-order learning process does not need to be stimulated, they need to be aware of what the initiatives mentions. Some critiques concerning the municipality can be overcome within the municipal layer of authorities.

5.2 Methodological reflections

As the data of the research lead to outcomes which differed from the literature, is it good to mention that the methods used also had an effect on the outcome. This part of the discussion will, therefore, reflect on the applied methods used for this research.

This case-specific research of Arnhem made it impossible to generalize the outcomes for other areas. Selecting another city in the Netherlands would naturally have led to different results. Other cities are located in different areas with different people which leads to different initiatives, policy structures and decisions. Although this research is case-specific it does provide credible results for Arnhem, as I spoke to most of the currently existing local food initiatives within Arnhem.

One limitation of this research is that I devised to plan half of the interviews with initiatives and a half with the municipality of Arnhem. In the end, however, less than half of the interviews were held with the municipality, due to a lack of exposure to the topic of local food production at the municipality, and employees have a broad portfolio of topics to work on besides food. I also discovered that the initiatives had much more time to schedule an appointment and were more willing to invite me and talk about the topic than people from the municipality. I decided to complement the municipal interviews by diverting to other policy departments, one interview in Renkum, a village next to Arnhem, and one interview with the province of Gelderland. I did not expect to face this difficulty with the municipal interviews as I had thought that food was already more incorporated into the different policy domains. On the one hand, it is an interesting outcome of this research but on the other hand, this did lower number of interviews affected the results, as less data is gathered to compare to.

All of the interviewees I have spoken to knew each other and are somehow related to the existing network. This because I arranged the first half of the interviewees through the bigger project RVL. Although I used snowball sampling to find the other interviewees, the interviewees are somehow related to the existing network. Because of this, I may have missed some interesting people or other insights which could have influenced the results. Some outsiders of the network such as general farmers could have provided me with information such as why they do not join the network.

Besides the interviews, the results are also formed by policy document analysis. The choice of policy documents is influenced by their online availability and affected the results. While the topic of local food production is up and coming, it is important to analyze the newest documents. An older document could negatively influence the results when less attention is noticed while newer documents show more attention to the topic. However, the newest 'meerjarenprogramma begroting' was not available online yet, which led to an analysis of an older version. While I could compare the two 'perspectiefnota's', I couldn't compare the two 'meerjarenprogramma begrotingen'. Were the newest version online, this could have led to different results, as they may pay more attention to the topic of local food.



6. Conclusion

- 6.1 The municipal influence on the niche development
- 6.2 Recommendations for future research
- 6.3 Recommendations for policymakers

6.1 The municipal influence on the niche development

This research was conducted to examine the relationship between the municipality and the development of local food initiatives and to provide insight into the tools used by the municipality of Arnhem and the possible tools in influencing the development of local food initiatives. This section presents the most important consequences of this research and formulates an answer to the main research question.

What is the influence of the municipality of Arnhem on the niche development of local food production?

This research has shown that the municipality should first have the ambition to develop a local food system. This need for municipal involvement is in accordance with the literature which argues that this transition needs a change of borders, barriers and relationships, and of the socio-technical system (Rotmans, 2005). The gathered data clearly show that the topic of local food is still in its infancy. As it takes at least one generation to transform a system (Geels, 2005) it is not surprising that society is not ready yet. This is also due to the fact that the current local food production offers no viable alternative to the globalized food system. The literature mentions this as limitations associated with local food (Pearson et al, 2011), and the interviews also support this, they admit that the local system is not yet capable of providing enough products to feed Arnhem. Considering the fact that there is little attention for local food production within the municipality, one might question can be if the municipality is ready to prepare this niche for influencing the regime. Where the municipality is an actor of the regime in the first place, makes it difficult to also be a stimulator in the process of niche formation. While the initiatives show the ambition to develop this local food system and the desire to change the globalized food system, the municipality needs to follow this ambition, otherwise, they will have a minimal impact on niche development.

When developing this ambition to contribute to this transition, they can implement the topic of local food in their municipal policies. A glimpse into the policy documents of the municipality and the municipal interviewees show that they pay minimal attention to this topic and implemented policies are missing. The municipality of Arnhem as a partner of the regime is not going to change within a few years. This outcome is not surprising, according to the Multi-Level Perspective theory it is even predicted that the municipality as an actor of the regime level is no frontrunner in this transition towards local food production (Geels, 2011; Manders et al, 2018).

This research showed that the municipality is an unpredictable player while the political agenda can change and the plans they made seem out of place, within a few years. The municipality of Arnhem is not ready for this Strategic Niche Management as most of the employees are participating in this existing regime. Observing the tasks within the municipality related to local food production, it seems that there are some pioneers within the municipality. There is one policy adviser at the municipality who puts all their efforts into teaming up with initiatives and putting local food on the policy agenda, but this person stands alone on the topic of local food and faces opposition. It is a valid question, what will happen if the policy adviser of urban agriculture stop or lose their portfolio? A key player and frontrunner of local food within the municipality would fail and the initiatives would need to do it on their own strength. Most of the current existing niche initiatives already existed before the job of this policy adviser, so it is unlikely that they disappear. But the consequences will apply for future niche players, the new initiatives. This will affect the

expanding of the regime and expansion is needed in the transition towards a local food system. This policy adviser of urban agriculture has a twofold position, on the one hand, his job to network with the food initiatives. On the other hand, and probably more importantly, they form a network within the municipality. Without other partners who support these initiatives and contribute to the development of these niche processes, the niche stays at its current size. Other policy domains always win over urban agriculture and thereby indirectly affect local food production.

The results showed that networking is experienced as a key to becoming successful. The network formation is of great importance with regard to exchanging knowledge, expanding the network and inspiring others to join the network and start producing or selling food locally. This is in accordance with the literature which stated that initiatives should first cluster with similar initiatives to attract others and synergise their activities (Smith & Raven, 2012). This formed niche of actors provides space for further development (Manders et al, 2018). To influence the niche development the municipality should mainly focus on expanding the network.

The data showed that these criteria of niche formation do not guarantee a successful niche development. This is in accordance with the view of transition scholars who say that not all the niches become successful (e.g. Geels, 2002; Schot & Geels, 2008). Weber et al, (1999) concluded that success is most likely when the niche actors are compatible with the regime. Being too in tune with the system will not lead to great changes and too radical demands for too many changes. The data show that the niche actors are not in tune with the system, while the municipality is far less developed in their ambitions than the initiatives are. But it is not clear if the niche actors are too radical. Yes, this transition asks for an enormous change, but the other issues like sustainability and circularity also ask for a change. Where food can be implemented in those bigger changes, I would say that the niche actors are compatible with the regime, or at least with the municipality. While the niche of local food production needs to function on its own in the future, currently they benefit from government involvement. When the municipality focusses on network building and creating space for the initiatives, the process of niche formation can be stimulated by the municipality of Arnhem to prepare the local food niche for influencing the regime.

6.2 Recommendations for further research

This research has shown the significant contribution of the municipality of Arnhem in the niche formation processes. To expand the knowledge of the niche formation, the steering capacity of a municipality and the transition towards a local food system, this section lists some recommendations for further research.

The demand for local food in Arnhem was no focal point in this study and is therefore not taken into consideration. As some of the interviewees mentioned that the consumers are not ready for local food, further research could be directed towards ways of studying what contributes to an increase in the demand for consuming local food. And, in line with this research, to examine what the possible government contribution is in this issue.

The topic of local food is still in its infancy, this is recognised in the policy documents and interviews. When SNM as a policy tool is not implemented yet it is interesting to examine this SNM as a policy tool in other areas where the topic of local food is already more adapted. Or future policy documents of the municipality or other employees could give new insights into the implemented topic of local food within the municipality of Arnhem.

While the data does not present much information about protected spaces to experiment with local food production, the literature states that this is an important tool in Strategic Niche Management (e.g. Schot & Geels, 2008; Jain et al, 2017; Raven, 2005). Where experimentation is desirable to explore the direction of the local food network and develop the niche, and this research lacks results for this, the possibilities and risks for a municipality to provide initiatives with a protected space to experiment could be studied.

Lastly, is the new environmental law going to be implemented in 2021, which gives possibilities to apply a holistic view on permit applications regarding the public space. Rules and laws are combined which makes the process easier, with the promise to simplify the permit application. This could be an outcome for initiatives with multifunctional functions, who combine functions such as food production, retail and special care. The research could be directed towards studying the effects of this new law regarding the application of initiatives with multiple functions.

6.3 Recommendations for policymakers

This research evaluated the three processes of niche formation with its criteria and searched for the influence of the municipality. The data showed that authorial support in those three processes of niche formation is helpful in the development, but how do you apply that in practice? Where the SNM research model did not give instruction on how to steer this process, it did help to identify a number of dilemmas (Schot & Geels, 2008). The obstacles faced could be overcome by the municipality. This section offers practical recommendations for planners, especially for the municipality of Arnhem on how they could support the niche formation of local food initiatives.

For the first process “expectations” is concluded that a clear vision is missing. While a good start is made with the urban agriculture vision, it misses its spatial effect and influence, and integration into other policy documents or domains. This vision of urban agriculture needs an update and integrating into other policy domains. This new vision can provide a solution for commonly faced problems of different policy domains. This will contribute to solving the many different departments the initiatives face when they want to start a project. They could also make a start by “practising what you preach” and introducing local food in their restaurant at the ‘stadskantoor’ and ‘gemeentehuis’.

One example of this integration is a food policy council, which addresses food issues on the policy agenda and advocates for a transition towards a more sustainable food system (Harper et al, 2009). First implemented in Toronto in 1999, it is now slowly being introduced in Western Europe. In 2017, Amsterdam became the first city in the Netherlands to start a food policy council (Van der Valk, 2019).

Fitting into the second process, the network formation, the municipality should focus on the process of network development in their new policies. They could also organise network meeting, specifically for the theme food. At the end of this research project, I met with the policy adviser of urban agriculture again, and he told me that they are just beginning the ‘Food café’ a network meeting where people from the field can meet each other. He also informed me that he gets reinforcement from another policy adviser on the topic of urban agriculture which contributes to the possibilities of the municipality to support this niche development. One additional recommendation is to pay attention to the network building within the municipality to increase the importance and attention of the growth of this niche development.

For the third process, the learning phase many recommendations can be mentioned. With regard to the underexposed technical learning development, one could think of investing in the logistics. One pioneer who already started with this logistics is the company 'Groene rijders'. Sitting down with them and acting on what they need could be a good starting point to expanding the local distribution network and experimenting with different forms of distribution.

Where SNM will not fulfil the task of influence the current existing regime, it is really important to give niches the chance to develop and that takes courage. When the initiatives show the courage and start influencing the regime it is time for the municipality to follow. One advice is to experiment on their own grounds if initiatives could rent a piece of land for a few years and the pilot is successful they could move to former farmland or other plots where they could stay for a longer period. In this way are the short-term land leases can be used as a pilot phase. Where the municipality sees the density of the city as an obstacle, the initiatives see plenty of options, the consumers, for example, are close by which makes the distribution much easier. The municipality needs to embrace the city and think of its limited space as an opportunity.

REFERENCES

References of literature

- Bhattacharjee, A. (2012). Chapter 12: Interpretive Research. In *Social Science Research: Principles, Methods, and Practices*. Global Text Project.
- Boeije, H. (2010). *Analysis in qualitative research*. Los Angeles: SAGE.
- Bosman, R., & Rotmans, J. (2016). Transition governance towards a bioeconomy: a comparison of Finland and the Netherlands. *Sustainability*, 8(10), 1017.
- Broekhof, S. M., & Van der Valk, A, J, J. (2012). Planning and the quest for sustainable food systems: explorations of unknown territory in planning research. In A. Viljoen & J. S. C. Wiskerke *Sustainable food planning: evolving theory and practice* (pp. 393-404). Wageningen Academic Publishers.
- Bryman, A. (2012). *Social Research Methods*: Oxford University Press.
- Caniëls, M. C., & Romijn, H.A. (2008). Actor network in strategic niche management: insights from social network theory. *Futures*, 40(7), 613-629.
- Creswell, J. W. (2014): *Research Design. Qualitative, Quantitative and Mixed Methods Approaches*. Fourth ed. Lincoln: Sage Publications.
- De Zeeuw, H., & Drechsel, P. (2015). *Cities and Agriculture: Developing Resilient Urban Food Systems*. New York/London: Routledge
- Elbardan, H., & Kholeif, A. O. R. (2017). An Interpretive Approach for Data Collection and Analysis. In *Enterprise Resource Planning, Corporate Governance and Internal Auditing: An Institutional Perspective* (pp. 111-165). Cham: Springer International Publishing.
- Ellen MacArthur Foundation. (2013). *Towards the Circular Economy. Economic and business rationale for an accelerated transition*. Retrieved from The Ellen MacArthur Foundation. <https://www.ellenmacarthurfoundation.org/assets/downloads/publications/Ellen-MacArthur-Foundation-Towards-the-Circular-Economy-vol.1.pdf>
- Ellen MacArthur Foundation. (2019). *Cities and circular economy for food*. Retrieved from the Ellen MacArthur Foundation. https://www.ellenmacarthurfoundation.org/assets/downloads/Cities-and-Circular-Economy-for-Food_280119.pdf
- Erickson, P., & Tempest, K. (2014). *Advancing climate ambition: How city-scale actions can contribute to global climate goals*. Stockholm Environment Institute, Working Paper 2014-6.
- FAO. (2018). *City region food system tools/examples*. Published by FAO, RUAF and WLU. Retrieved from: <http://www.fao.org/in-action/food-for-cities-programme/toolkit/introduction/en/>
- Flyvbjerg, B. (2006). Five Misunderstandings About Case-Study Research. *Qualitative Inquiry*, 12(2), 219-245.
- Geels, F. W. (2002). Technological transitions as evolutionary reconfiguration processes: a multi-level perspective and a case-study. *Research policy*, 31(8-9), 1257-1274.
- Geels, F. W. (2005). The dynamics of transitions in socio-technical systems: a multi-level analysis of the transition pathway from horse-drawn carriages to automobiles (1860-1930). *Technology Analysis and Strategic Management*, 17(4), 445-476.
- Geels, F. W. (2011). The multi-level perspective on sustainability transitions: Responses to seven criticisms. *Environmental innovation and societal transitions*, 1(1), 24-40.
- Geels, F. W., & Schot, J. (2007). Typology of sociotechnical transition pathways. *Research policy*, 36(3), 399-417.

- Gelders Genootschap & Buro Poelmans Reesink. (2016). *Gelders Arcadië*. Retrieved from Municipality Arnhem: https://www.geldersgenootschap.nl/bestanden/Afbeeldingen/1499-1/Karakteristieken_en_Ambities_Gelders_Arcadie.pdf
- Gordin, P. C. (2006). *An instrumental case study of the phenomenon of collaboration in the process of improving community college developmental reading and writing instruction*. Graduate Theses and Dissertations. University of South Florida, USA, 249 pp.
- Harper, A., Shattuck, A., Holt-Gimenez, E., Alkon, A., & Lambrick, F. (2009). *Food Policy Councils: Lessons Learned*. Development Report 21. Food First: Institute for Food and Development Policy, USA, 63pp.
- Hofman, P. (2002). Becoming a First Mover in Green Electricity Supply: Corporate Change Driven by Liberalisation and Climate Change. *Greener Management International*, 39, 99-108.
- Hoogma, R. (2000). *Exploiting technological niches: Strategies for experimental introduction of electric vehicles*. Enschede: Twente University Press.
- Hoogma, R., Schot, J., & Kemp, R. (2002). *Experimenting for sustainable transport: the approach of strategic niche management*. London, E Spon Press.
- Jain, M., Hoppe, T., & Bressers, H. (2017). Analyzing sectoral niche formation: The case of net-zero energy buildings in India. *Environmental innovation and societal transitions*, 25, 47-63.
- Jurgilevich, A., Birge, T., Kentala-Lehtonen, J., Korhonen, K., Pietikäinen, J., Saikku, L., & Schösler, H. (2016). Transition towards Circular Economy in the Food System. *Sustainability*, 8, 69.
- Kumar, R. (2019). *Research methodology : A step-by-step guide for beginners* (Fifth ed.). London: SAGE.
- Kemp, R., Schot, J., & Hoogma, R. (1998) Regime shifts to sustainability through processes of niche formation: The approach of strategic niche management. *Technology Analysis & Strategic Management*, 10(2), 175-198.
- Lachman, D. A. (2013). A survey and review of approaches to study transitions. *Energy Policy* 58, 269-276.
- Lawhon, M., & Murphy, J. T. (2011). Sociotechnical regimes and sustainability transitions: insights from political ecology. *Progress in Human Geography*, 36(3), 354-378.
- Loorbach, D. (2007). *Transition management. New mode of governance for sustainable development*. Utrecht: International Books.
- Loorbach, D., & Rotmans, J. (2006). Managing transitions for sustainable development. In A. J. Wiczorak & X. Olshoorn (Eds.), *Industrial Transformation – disciplinary approaches towards transformation research*. Dordrecht: Kluwer Academic Publishers.
- Loorbach, D., & Shiroyama, H. (2016). The Challenge of Sustainable Urban Development and Transforming Cities. In D. Loorbach, J. M. Wittmayer, H. Shiroyama, J. Fujino, & S. Mizuguchi (Eds.), *Governance of Urban Sustainability Transitions: European and Asian Experiences* (pp. 3-12). Tokyo: Springer Japan.
- Manders, T. N., Wieczorek, A. J., & Verbong, G. P. J. (2018). *Transition strategy: A niche management framework*. TU Eindhoven.
- Mendizabal, M., Heidrich, O., Feliu, E., García-Blanco, G., & Mendizabal, A. (2018). Stimulating urban transition and transformation to achieve sustainable and resilient cities. *Renewable and Sustainable Energy Reviews*, 94, 410-418.
- Morgan, K. (2014). The New Urban Foodscape: Planning, Politics and Power. In Viljoen, A., & Bohn, K. (2014). *Second Nature Urban Agriculture: Designing productive cities*. London / New York: Routledge.
- Moser, S. C., & Ekstrom, J. A. (2010). A framework to diagnose barriers to climate change adaptation. *Proceedings of the National Academy of Sciences*, 107(51), 22026-22031.
- Municipality of Arnhem. (2017). *It's growing in Arnhem* [Het groeit in Arnhem: visie stadslandbouw & regionaal voedsel]. Municipality of Arnhem. Retrieved from <http://groenarnhem.nl/wp-content/uploads/2017/09/Visie-Stadslandbouw-2017.pdf>
- Pearson, D., Henryks, J., Trott, A., Jones, P., Parker, G., Dumaresq, D., & Dyball, R. (2011). Local food: Understanding consumer motivations in innovative retail formats. *British Food Journal*, 113(7), 886-899.

- Pothukuchi, K., & Kaufman, J. L. (1999). Placing the food system on the urban agenda: The role of municipal institutions in food systems planning. *Agriculture and Human Values*, 16(2), 213-224.
- Pothukuchi, K., & Kaufman, J. L. (2000). The Food System, a stranger to the planning field. *Journal of the American Planning Association*, 66(2), 113-124.
- Prendeville, S., Cherim, E., & Bocken, N. (2017). Circular Cities: Mapping Six Cities in Transition. *Environmental innovations and societal transitions*, 26, 171-194.
- Pretty, J. (2001). *Some Benefits and Drawbacks of Local Food Systems*. University of Essex, Colchester.
- Raven, R. P. J. M. (2005). *Strategic niche management for biomass: a comparative study on the experimental introduction of bioenergy technologies in the Netherlands and Denmark*. Eindhoven: Technische Universiteit Eindhoven
- Raven, R. P. J. M. (2006). Towards alternative trajectories. Reconfigurations in the Dutch electricity regime. *Research Policy*, 35, 581-595
- Rip, A., Kemp, R. P. M., & Kemp, R. (1998). Technological change. In S. Rayner, & E. L. Malone (Eds.) *Human choice and climate change. Vol. II, Resources and Technology* (pp. 327-399). Columbus, Ohio: Battelle Press.
- Rotmans, J. (2005). *'Societal Innovation: between dream and reality lies complexity'*. Booklet: Erasmus University Rotterdam.
- Rotmans, J., Kemp, R., & Van Asselt, M. (2001). More evolution than revolution: transition management in public policy. *Foresight*, 3(1), 15-31.
- Schot, J., & Geels, F.W. (2008). Strategic niche management and sustainable innovation journeys. Theory, findings, research agenda, and policy. *Technology Analysis & Strategic Management*, 20(5), 537-554
- Shove, E., & Walker, G. (2010). Governing transitions in the sustainability of everyday life. *Research policy*, 39(4), 471-476.
- Silverman, D. (2014). *Interpreting Qualitative Data. Methods for Analyzing Talk, Text and Interaction*. London: SAGE Publications.
- Smith, A. (2007) Translating sustainabilities between green niches and socio-technical regimes. *Technology Analysis & Strategic Management*, 19(4), 427-450.
- Smith, A., & Raven, R. (2012) What is protective space? Reconsidering niches in transitions to sustainability. *Research Policy*, 41(6), 1025-1036.
- Smith, A., Stirling, A., & Berkhout, F. (2005). Governance of sustainable socio-technical transitions. *Research policy*, 34(10), 1492-1510.
- Spaargaren, G., Oosterveer, P. J. M., & Loeber, A. M. C. (2012). *Food Practices in Transition - Changing Food Consumption, Retail and Production in the Age of Reflexive Modernity*. New York/London: Routledge.
- Steel, C. (2008). *Hungry city: how food shapes our lives*. London: Chatto & Windus.
- Stierand, P. (2012). Chapter 5 Food Policy Councils: recovering the local level in food policy. In A. Viljoen & J. S. C. Wiskerke. (2012). *Sustainable food planning: evolving theory and practice* (p. 67 - 78) Wageningen Academic Publishers.
- Termeer, C. J. A. M. (2019). *Expertpaper about achieving the transition towards a circular agrofood system* [Expertpaper over het bewerkstelligen van een transitie naar kringlooplandbouw]. Retrieved from https://www.wur.nl/upload_mm/0/c/5/8254e3d8-c084-410f-aea7-b4f962c6acdc_Expertpaper_over_het_bewerkstelligen_van_ee_n_transitie_naar_kringlooplandbouw.pdf
- UNEP (2015). *Sustainable Consumption and production; a handbook for policymakers*. Retrieved from: <https://sustainabledevelopment.un.org/content/documents/1951Sustainable%20Consumption.pdf>
- Van Bree, B., Verbong, G. P. J., & Kramer, G. J. (2010). A multi-level perspective on the introduction of hydrogen and battery-electric vehicles. *Technological Forecasting and Social Change*, 77(4), 529-540.
- Van der Laak, W. W. M., Raven, R. P. J. M., & Verbong, G. P. J. (2007). Strategic niche management for biofuels: Analysing past experiments for developing new biofuel policies. *Energy Policy*, 35(6), 3213-3225.

Van der Schans, J. W., & Klein Gebbink, S. (2014). *Regional food of Arnhem* [Regionaal voedsel in Arnhem]. Retrieved from: https://www.researchgate.net/publication/283274097_Regionaal_voedsel_in_Arnhem_naar_meer_regionaal_voedsel_in_Arnhem/citation/download

Van der Valk, A. (2019). A Hybrid Food Policy Board for the Amsterdam Metropolitan Area. In Food Policy Councils. *Urban Agriculture Magazine*, 36, 15-17. RUAF.

Van Hoek, T. (2015). Feasing for Feasibility. In N. Chin-A-Fat, van Twist, M., Scherpeniss, J. Van der Steen, M. (Ed.), *Steering in Circles? Reflections on the Transition of a Linear to a Circular Economy* (pp. 12-19). Den Haag: NSOB.

Walsham, G. (2006). Doing Interpretive Research. *European Journal of Information Systems*, 15(3), 320-330.

Weber, M., Hoogma, R., Lane, B., & Schot, J. (1999) *Experimenting with Sustainable Transport Innovations: A Workbook for Strategic Niche Management*. Twente, University of Twente Press.

Wieczorek, A. J. B. F. (2009). Transitions to sustainability as societal innovations. In *Principles of environmental sciences* (pp. 503-512). Dordrecht: Springer.

Wiskerke, J. S. C. (2009). On places lost and places regained: reflections on the alternative food geography and sustainable regional development. *International planning studies*, 14(4), 169-387.

Wiskerke, J. S. C., & Viljoen, A. (2012). Sustainable urban food provisioning: challenges for scientists, policymakers, planners and designers. In A. Viljoen & J. S. C. Wiskerke *Sustainable food planning: evolving theory and practice* (pp. 19-35). Wageningen Academic Publishers.

References of policy documents

Voedselregio Rijn IJssel Linge. (2018, April). **Eet je regio** [Document for advertisement]. Retrieved from: <http://www.voedselbijgeldersegemeenten.nl/file.php/455/Boekje%20Eet%20Je%20Regio.pdf>

Municipality of Arnhem. (2017, September). **Visie stadslandbouw**. [Policy document]. Retrieved from: <https://stadslandbouwnederland.nl/wp-content/uploads/2017/10/Visie-SLB-Arnhem-sept-2017.pdf>

Municipality of Arnhem. (2018, April). **Groenvisie 2017-2035**. [Policy document]. Retrieved from: https://www.google.nl/url?sa=t&rct=j&q=&esrc=s&source=web&cd=3&ved=2ahUKEwinweHwvZznAhVKa1AKHddzDrcQFjACegQIBRAB&url=https%3A%2F%2Fwww.arnhem.nl%2Finwoners%2Fwonen_en_milieu%2FGroenbeheer%2FGroenbeheer%2FGroenvisie_2017_2035.pdf&usg=AOvVaw0XYZsgZgRE268teygOKCud

Municipality of Arnhem. (2012, December). **Structuurvisie Arnhem 2020 | doorkijk 2040**. [Policy document]. Retrieved from: https://www.arnhem.nl/ruimtelijkeplannen/plannen/NL.IMRO.0202.STV794-/NL.IMRO.0202.STV794-0301/d_NL.IMRO.0202.STV794-0301.pdf

KplusV. (2018, February). **Circulair Arnhem**. [Policy Document]. Retrieved from: <https://api1.ibabs.eu/publicdownload.aspx?site=Arnhem&id=8eea540b-38bb-4afa-b024-3a5634d5ca3a>

Municipality of Arnhem. (2017, March) **Perspectief Nota 2018-2021**. [Policy document]. Retrieved from: <https://vng.nl/sites/default/files/Gemeentefinancien/2018/Perspectiefnota%202018-2021.pdf>

Municipality of Arnhem. (2019, October). **Perspectief Nota 2020-2023**. [Policy document]. Retrieved from: <https://financien.arnhem.nl/assets/docs/Perspectiefnota%202020-%202023.pdf>

Municipality of Arnhem. (2017, September). **Meerjarenprogrammabegroting 2018-2021** [Policy Document]. Retrieved from: https://www.arnhem.nl/Bestuur/begroting1/eerdere_begrotingen/Ontwerp_MJPB_2018_2021.org

References of figures & illustrations

Cover sheet	Author
Introduction	
Frontpage	Eerlijk Winkelen (2019). Bakkerij Tom van Otterloo. Retrieved February 11, 2020, from https://eerlijkwinkelen.nl/stad/winkel/2048/Arnhem/Bakkerij%20Tom%20van%20Otterloo
Figure 1. Reading guide	Author
Theoretical framework	
Frontpage	Eet je regio. (2018). Verslag event voedselregio Rijn IJssel Linge. Donderdag 12 april 2018 Bemmelen. Retrieved, February 11, 2020, from https://docplayer.nl/105709453-Eet-je-regio-verslag-event-voedselregio-rijn-ijssel-linge-donderdag-12-april-2018-bemmel.html
Figure 2. Multi – Level Perspective	van Bree, B., Verbong, G. P. J., & Kramer, G. J. (2010). A multi-level perspective on the introduction of hydrogen and battery-electric vehicles. <i>Technological Forecasting and Social Change</i> , 77(4), 529-540.
Figure 3. Conceptual framework	Author
Research design	
Frontpage	De Groene Vos. (2019). Stadslandbouw. Retrieved February 11, 2020, from http://degroenevos.nl/stadslandbouw/
Figure 4. Gelders Arcadia	Gelders Genootschap & Buro Poelmans Reesing (2016). Gelders Arcadië. Retrieved September 25, 2019, from https://www.geldersgenootschap.nl/bestanden/Afbeeldingen/14991/Karakteristieken_en_Ambities_Gelders_Arcadie.pdf
Results	
Frontpage	Arnhem Plaza. (2016). Landwinkel IJsseloord geopend. Retrieved February 11, 2020, from https://www.arnhemplaza.nl/landwinkel-ijsseloord-geopend/
Discussion	
Frontpage	Arnhem Klimaat bestendig. (2018). Stadslandbouw Muntendampad. Retrieved February 11, 2020, from https://www.arnhemklimaatbestendig.nl/project/stadslandbouw-muntendampad/
Conclusion	
Frontpage	Park Lingezege. (2019). Voedselbossen. Retrieved February 11, 2020, from https://parklingezege.nl/voedselbossen/

All tables are made by the author.

APPENDICES

A: Interview guide in English

(Only for English readers of the thesis, a Dutch version (appendix B) will be used for data collection)

Introduction

- Can I record the interview so that I can process it properly afterwards?
I will let you know what information I process from this interview.
- I am Rachel, student Landscape architecture and Planning and I am now in the final year of my master's degree. In my study, I specialized in spatial planning and I am interested in sustainability issues within urban areas.
- My thesis is about the municipal role of Arnhem in the development of local food initiatives in and around Arnhem.

I ask the person to introduce themselves and briefly tell me what they are doing within the municipality or the initiative.

Initiatitives

Municipality

Voicing and shaping expectations

- **What is the expectation of local food?**
- How was the contact with other parties?
- What obstacles did you face?
- **Do you think your project is successful?**
- **When do you find your project is successful?**
- **What do you need for this?**
- Do you need the municipality for the success of a food initiative?
- **Do you need the municipality to realise a regional food system?**

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- **Do you need the municipality to realise a regional food system?**

Network formation

- **Do you work together with other parties?**
- **What do you need from other parties?**
- **Do you miss other partners?**
- **What is the role of the municipality in the development of a regional food network?**
- **What is the importance of the network?**

- **What is the role of the municipality in the development of a regional food network?**
- What is the importance for the municipality?

Learning process

- Why should Arnhem produce and consume locally produced food?
- **Why do we need to change the current system?**
- Market forces or steering?
- What can the municipality do?
- **What have you learned so far?**
- Where is this project in 10 years?
- Where will Arnhem be in 10 years?
- How do you see the development of the regional food system?
- **What is needed to change the current system?**

- Why should Arnhem produce and consume locally produced food?
- **Why do we need to change the current system?**
- Market forces or steering?
- What can the municipality do?
- **What have you learned so far?**
- Where is this project in 10 years?
- Where will Arnhem be in 10 years?
- How do you see the development of the regional food system?
- **What is needed to change the current system?**

Policy tools

- How was the contact with the municipality at the start?
- Did you buy the land or rent it?
- Did you get help from the municipality?
- Do you know people at the municipality you can turn to?
- **What have you received from the municipality (subsidy, land, network, knowledge, etc.)?**
- What do you need from the municipality?
- What obstacles do you face, and how could/should this be done differently?
- **Would a protected space help in the development of a local food network?**

- **What instruments do you use to stimulate food initiatives?**
- Do you rent out/lease land to local food initiatives?
- Do you facilitate the network of food initiatives?
- Is the POP3 subsidy successful?
- What obstacles do you encounter?
- **Would a protected space help in the development of a local food network?**

Final questions

- What is your dream for local food production?
- Is there a topic we haven't talked about that you'd like to add?
- Can you recommend anyone else I should interview as part of my research?

- What is your dream for local food production?
- Is there a topic we haven't talked about that you'd like to add?
- Can you recommend anyone else I should interview as part of my research?

B: Interview guide in Dutch

(This version will be used for data collection, the English version is visible in appendix A)

1. Introductie

- Mag ik het interview opnemen zodat ik het na afloop goed kan verwerken? Ik zal jou uiteraard laten weten welke informatie ik van dit interview verwerk.
- Ik ben Rachel, studente Landscapsarchitectuur en Planning en zit nu in het laatste jaar van mijn master. In mijn studie heb ik mij gespecialiseerd in ruimtelijke planning en ben ik geïnteresseerd in duurzaamheidsvraagstukken binnen stedelijk gebied.
- Ik doe onderzoek naar de rol van de gemeente bij de ontwikkeling van lokale voedselinitiatieven in en rondom Arnhem.

- Ik vraag de persoon of hij/zij zich voor wil stellen en kort wil vertellen wat hij zij doet binnen de gemeente of het initiatief.

Initiatieven

Gemeente

Voicing and shaping expectations

- **Wat is de verwachting van lokaal voedsel?**
- Hoe verliep het contact met andere partijen?
- Waar liep je tegen aan?
- Vind je jouw project geslaagd?**
- Wanneer vind je jouw project geslaagd?**
- Wat heb je hier voor nodig?**
- Heb je de gemeente nodig voor het succes van een voedselinitiatief?
- Heb je de gemeente nodig voor het realiseren van een regionaal voedsel systeem?**

- Heb je de gemeente nodig voor het succes van een voedselinitiatief?
- Heb je de gemeente nodig voor het realiseren van een regionaal voedsel systeem?**

Network formation

- Werk je samen met andere partijen?**
- Wat heb je nodig van andere partijen?**
- Mis je nog andere partijen?**
- Wat is de rol van de gemeente bij het ontwikkelen van een regionaal voedselnetwerk?**
- Wat is het belang van het netwerk?**

- Wat is de rol van de gemeente bij het ontwikkelen van een regionaal voedselnetwerk?**
- Wat is het belang voor de gemeente?

Learning process

- Waarom zou Arnhem lokaal moeten produceren en consumeren?
- Wat is er nodig om het huidige systeem te veranderen?**
- Marktwerking of sturing?
- Wat kan de gemeente hierin betekenen?
- Wat heb je tot nu toe geleerd?**
- Waar is dit project over 10 jaar?
- Waar is Arnhem over 10 jaar?
- Hoe zie jij de ontwikkeling van het regionaal voedselsysteem voor je?
- Wat is hier voor nodig?**

- Waarom zou Arnhem lokaal moeten produceren en consumeren?
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- Marktwerking of sturing?
- Wat kan de gemeente hierin betekenen?
- Wat heb je tot nu toe geleerd?**
- Waar is dit project over 10 jaar?
- Waar is Arnhem over 10 jaar?
- Hoe zie jij de ontwikkeling van het regionaal voedselsysteem voor je?
- Wat is hier voor nodig?**

Policy tools

- Hoe verliep het contact met de gemeente bij de opstart?
- Heeft u de grond gekocht, gepacht gehuurd?
- Kreeg u hulp van de gemeente?
- Ken je mensen bij de gemeente bij wie je terecht kan?
- Wat heb je van de gemeente ontvangen (subsidie, grond, netwerk, kennis, etc.)**
- Wat heb je nodig van de gemeente?
- Waar loop je tegen aan, en hoe zou dat anders kunnen/moeten?
- Zou een protected space helpen bij de ontwikkeling van een regionaal voedsel netwerk?**

- Welke instrumenten zetten jullie in bij het stimuleren van voedselinitiatieven?**
- Verhuren/verpachten jullie gronden aan lokale voedselinitiatieven?
- Faciliteren jullie het netwerk van voedselinitiatieven?
- Is de POP3 subsidie succesvol?
- Welke obstakels kom je tegen?
- Zou een protected space helpen bij de ontwikkeling van een regionaal voedsel netwerk?**

Afsluiting

- Wat is jou droom voor lokale voedselproductie?
- Is er een onderwerp waar we het nog niet over hebben gehad dat jij graag wilt toevoegen
- Kan je nog iemand aanbevelend die ik ook zou moeten interviewen in het kader van mijn onderzoek?

- Wat is jou droom voor lokale voedselproductie?
- Is er een onderwerp waar we het nog niet over hebben gehad dat jij graag wilt toevoegen
- Kan je nog iemand aanbevelend die ik ook zou moeten interviewen in het kader van mijn onderzoek?

C: Original quotations in Dutch

¹ We hadden in de bakkerij een bijeenkomst van de bakkers vakbond. Dat is al ruim 3 jaar geleden. En ik zat op de jaarvergadering en in de rondvraag zei ik: wat doen jullie aan duurzaamheid? Ja dat is allemaal nog niet zo belangrijk, dat komt wel. Dus je ziet dat de lokale initiatieven nu ook veel meer van de grond gaan komen omdat mensen allemaal markt zien. En het is ook gedeeltelijk markt, als je die markt maar eerlijk aanpakt. Nogmaals niet alleen maar op geld gaat zitten. ~ baker

² Ja en misschien is soms lokaal voedsel nog wel het ondergeschoven kindje van alle verschillende voedseltrends: gezond, vega, al dat soort dingen. Die hebben veel meer, meer dominant eigenlijk. En dat lokale voedsel, owja maar wacht het is inderdaad wel leuk dat m'n appeltjes uit Nederland komen en niet uit Nieuw-Zeeland. ~ councilor

³ Nou het is vooral omdat ik tegen de stad aan zit natuurlijk, het is een hartstikke mooie locatie om zoiets te doen. En er zijn denk ik wel meer boeren rondom arnhem die dat wel meer zouden kunnen uitbuiten, al stimuleer ik dat natuurlijk niet te hard. Nou begin je ook niet zomaar hoor. Wat andere initiatieven zou kunnen, maar zit jij ergens achteraf in de polder, dan is dat veel moeilijker natuurlijk. ~ dairy farmer

⁴ Ik zie daar wel toekomst in, dat het gaat groeien. En dat is niet alleen maar deze landbouw, want we kunnen niet van lokale landbouw alleen eten of bakken, dat gaan we niet redden. We moeten en-en doen, daar zie ik ook wel de kracht. We houden de grote molenaar over, maar het is juist ook goed om specialisaties te maken van lokale producten. ~ baker

⁵ We zien dat voedselproducenten belangrijk zijn omdat ze zorgen voor onderhoud van ons landschap. Ze vormen het landschap. ~ policy adviser 3

⁶ Je hebt nu liberale pacht, de bescherming is eraf. Je hebt nu liberale pacht voor 1 jaar, voor 6, en dan stopt het eigenlijk. En wat je kunt doen is naast die pacht van 6 jaar, een extra, dat kun je ook bij de grondbank vastleggen, een extra document opstellen, een extra contract aanvullend daarop met een termijn van 30 jaar, Waarin je de voors en tegens. dat kan, dat kan gewoon. en dan kun je tenminste een bedrijf voeren. Ik bedoel, ik ben nu een bedrijf aan het opbouwen en ik ben er nu al mee bezig met waar moeten we straks heen, dat kan toch niet! En ik denk dat het heel gaaf zou zijn als de gemeente wat wil en daarin wat zou kunnen betekenen. ~ city farmer 2

⁷ Ken je spijkerzwam? Het gedoe wat zij hadden om alleen al die koffiedik op te halen, dat is gewoon heel raar. En ik weet niet, dat was voor mijn tijd toen dat speelde, wat de rol van de gemeente daarin was. Maar ik merk wel dat mensen die dan gewoon een leuk initiatief is, en of dat dan met cultuur of met voedsel is, maar dat je denkt dat is gewoon een goed idee, die willen dat dan uit gaan werken en die komen dan allemaal regels tegen waardoor niks kan en dan haken ze af. En ik zie het wel ook als een taak voor de gemeente om daar heel scherp op te zijn. Omdat je soms ook mensen kan helpen om door die regels door te komen, zodat ze daarna ook iets kunnen gaan doen. En ik denk dat dat ook wel een belangrijke rol is voor de overheid. Regels zijn regels en vinden we dit een goed plan. Als het dan een goed plan is wat kunnen wij dan doen om het te realiseren, dat vind ik altijd wel een belangrijke. ~ alderman

⁸ We zijn zo klein. En ik begrijp dat het allemaal veilig moet en dat we, maar we zijn wel ver doorgeschooten en heel veel van de regelgeving is met name gericht op die hele grote bedrijven. En dat is met name voor kleine bedrijven de dood in de pot. Het is doorgeschooten en dat zit dit soort initiatieven echt in de weg gewoon, het slaat alles dood. En de grote bedrijven hebben het wel voor elkaar. Ja het is wel lastig. ~ city farmer 3

⁹ We begonnen vanaf 2010 met de poging bij de gemeente aan te kaarten: wij willen een voedselbos. Je krijgt met een schier van oneindige overleggen te maken. Wie zijn jullie, wat is een voedselbos, waarom wil je dat, wie is je doelgroep, kun je een plan schrijven, wat moet het gaan kosten, wie gaat dat betalen, wat is je verdienmodel, enzo. Voor je het weet heb je 2 jaar overleg gehad en is er niks gebeurd. En heb je ook nog eens met 5 verschillende afdelingen binnen de gemeente te maken. Want aangezien je een stichting bent, ben je een vrijwilligersorganisatie. Aangezien je met armoede bezig bent val je onder het armoede beleid. Aangezien je met milieu bezig bent, milieubeleid. Voedsel, val je weer onder een afdeling. Trouwens btw, het moet gaan plaatsvinden op grond van de gemeente, dus heb je met vastgoed te maken. En als je het dan ook nog hebt over innovatief project, heb je het over het wijzigen van een bestemmingsplan, dus dan heb je weer met een andere afdeling te maken. En dan heb je nog de inspraak procedure van omwonenden die bezwaar kunnen maken. Voor je het weet ben je 5 jaar verder en is er nog niks gebeurd. ~ food forest

¹⁰ Ja met name ruimte, dat is wel ingewikkeld. En ook gewoon geld, geld is altijd een obstakel voor alle leuke dingen die je wilt doen. Of je nou bij de gemeente zit of ergens anders. Dus daarin slim nadenken hoe je dingen anders kan oplossen dan met veel ruimte en veel geld. En daarbij heb je elkaar echt nodig. En dan vind ik ook, wat jij ook al zei he van je kan niet overal alleen maar subsidie gaan geven want dan schiet dat niet op, en dan krijg je geen gezond ecosysteem wat op zichzelf kan draaien. ~ alderman

¹¹ Er zijn verschillende toekomstrichtingen denk ik, maar moet het meer richting duurzaamheid. Je hebt echt de voorlopers, die moeten ondersteund worden anders vallen die om. Maar het hele peloton zal ook die kant op moeten, en als ze niet willen dan houdt het op denk ik. ~ care farm

¹² We hebben met de collega's samen ook een beetje van wat is circulariteit binnen openbare ruimte. En we hebben duurzaamheid ondertekend. En je merkt bij projecten dat we daar wel mee aan het stoeien zijn, met bouwteams. Dat we aan het experimenteren zijn met een plastic brug bijvoorbeeld. Dus voor een deel wordt er wel geëxperimenteerd. Bij beheer zijn we nu ook bezig met experimenten.. ~ policy adviser 2

¹³ Het heeft denk ik meer te maken met dat de gemeente nog niet heel erg, ook bij mij hoor, dat het nu niet een hele prominente plek heeft, ook niet bij openbare ruimte of bij groen. Dus dat is ook nog een beetje zoeken. Ze hebben nu zo'n visie op stadslandbouw, en dat is leuk, maar daar heb je niks aan als er niks gebeurt. ~ alderman

¹⁴ Maar het gaat er even over dat die lange voedselketen wel bestaat. En dat je mensen wel moet overtuigen om dat te gaan doen. En dat je nog van alles moet inrichten, wat enorm kapitaal intensief is, wat er nog niet is. Dus volgens mij zou de rol moeten zijn van de overheid om aanjager, om mij part zelfs met renteloze leningen zou het kunnen zijn die op lange termijn zijn. Maar nog liever dat ze zouden investeren in de infrastructuur, zet een spoel en snijkeuken neer. En gebruik mensen met afstand tot de arbeidsmarkt om aan het werk te krijgen. ~ city farmer 3

¹⁵ Er zijn heel veel verschillende redenen te noemen volgens mij, en dan kom je op bijna alle beleidsterreinen van de gemeente wel terecht. Het gaat natuurlijk over de lokale economie, om ff een belangrijke te noemen. Ik heb er ooit wel eens 6 gedefinieerd. ~ city farmer 3

¹⁶ De meerwaarde is in eerste instantie, de bodem wordt gewoon goed beheerd he. Als je het vergelijkt gangbaar met biologisch. Voor de bodemvruchtbaarheid, gif, ja dat is al een hele grote stap he. Voor de biodiversiteit ook. En ten tweede is ook de verbinding tussen stad en land een belangrijk he. Dus de consument die ook op de landgoederen producten komt halen en daarmee ook meer binding krijgt met de landgoederen. ~ land estate owner

¹⁷ En ik denk dat weet ik niet nu zo zeker. Maar dat op het moment dat je het ook echt in een visie wilt zetten je op dat moment ook echt wel stevige beleidsdoelen moet hebben. En ik vraag me af of we die nu stevig genoeg hebben neergezet om dat te verankeren, het is natuurlijk ook niet zo dat die omgevingsvisie geschreven wordt en nooit meer veranderen kan. Maar het is wel zo dat we stappen moeten gaan zetten met elkaar om te kijken van hoe kan je die dingen beter met elkaar verknopen. En ik merk ook dat ik wel echt mijn handen vol heb met de energietransitie, zorgen dat je biodiversiteit en de kwaliteit van groen vergroot. En soms kan je daarin stadslandbouw en voedselproductie meenemen, maar soms is het juist ook dat het schuurt en de manier waarop je met de openbare ruimte omgaat. Dus dat is wel echt zoeken. ~ alderman

¹⁸ Dus dat betekent dat we hier best wel veel werk verzetten om andere collega's te overtuigen, en met planjuristen kijken in hoeverre je dingen kan oprekken, daar komt van alles bij kijken. Dat is vaak meer werk dan zichtbaar is voor de buitenwereld. En het lukt ook niet altijd moet ik zeggen, soms hebben wij ook een belang he. ~ policy adviser 1

¹⁹ En onze insteek voor de gemeente blijft de zoektocht wat de rol van de gemeente daarin is. Want wij vinden niet dat we voorop moeten lopen en overal had moeten gaan trekken en van alles moeten initiëren. We willen vooral faciliteren op initiatieven waar al energie ontstaat, die nog net dat laatste zetje nodig hebben om dat initiatief te kunnen maken. Daar willen we graag een rol in spelen. ~ policy adviser 3

²⁰ Ja, de nieuwe omgevingswet is sowieso een beetje vaag, de verhalen zijn mooi, ik hoop dat het iets integraler gaat worden, het werken en de beslissing voor een initiatief. Dat je sneller de personen hebt gevonden met wie je dat kunt overleggen. ~ policy adviser 2

²¹ Ja dat gaat vanzelf. Als je zegt waar je mee bezig bent staan er enthousiaste mensen op. En er moet nog een hele hoop werk verzet worden hoor, we zijn er nog lang niet. ~ pilot farm

²² Dat was voor ons niet de doelstelling. Tuurlijk wel om brood te verkopen en om daar natuurlijk ook een boterham aan te verdienen. Maar ook om met elkaar een heel traject in te gaan. Een samenwerking met een lokale boer, met de molen en om het verhaal te kunnen vertellen dat hebben we opgezet. Dat het van zo'n 20/30 kilo in de week ging naar ruim 100 kilo in de week aan lokale tarwe waar we van gingen bakken. ~ baker

²³ Dus die lukt het wel om het lokaal af te zetten. Je ziet Tom van Otterloo die met heel veel lokale granen werkt en daarmee zijn brood verkoopt. Het is alleen nu nog wat gefragmenteerd. En dat moet je bij elkaar zien te brengen. ~ policy adviser 3

²⁴ Ja en een netwerk heb je daar ook voor nodig, het is geen doel maar wel een middel om dingen voor elkaar te krijgen. ~ care farm

²⁵ Ja natuurlijk, hartstikke leuk om te doen. Je ziet iets nieuws groeien en je ziet dat andere mensen het verhaal gaan begrijpen. En het zit hem er echt in dat we mensen elkaar wat gunnen, in plaats van whats in it for me. ~ baker

²⁶ Bedrijfsduurzaamheid is wel heel belangrijk, als er niks te verdienen valt dan gaat hij het niet doen. Maar als je de boer een eerlijke prijs geeft zodat hij ook een boterham verdiend is het interessant. Dus maak goede en eerlijke afspraken in die keten zodat iedereen eerlijk kan verdienen, en niet over de rug van een ander, dat is duurzaam! Anders is het over een jaar weer stuk. ~ baker

²⁷ De boeren in de regio hebben nu een coöperatie opgericht. En die heb ik als advies gegeven, maak van de coöperatie een merk, en koppel aan dat merk gewoon kant en klare producten die je in de markt bij bakkers kan zetten. ~ baker

²⁸ Ik zit bij een werkgroep van echt koplopers en de denkers. Die zijn echt aan het uitvogelen hoe kun je zonder grond toch toegang krijgen tot grond. Hoe kun je zorgen dat de pacht veranderd. Hoe kun je zorgen dat je met elkaar iets kunt financieren. En dan is het op een gegeven moment dat je moet horen dat je bij elkaar gaat zitten. Waar sturen we op aan gaan we ervoor, volgens mij wil iedereen dat hier wel, dus dat is wel gaaf. ~ city farmer 2

²⁹ Zij krijgen straks die paddestoelen, en die moeten ze weer wegzetten. Wij kunnen daar een gedeelte van afnemen, om een brood te maken van paddestoelen. En dat doen we dus ook met de lokale brouwer, we nemen zijn borstel af, om van eigenlijk hun afval een product te maken. En dat probeer je niet alleen in producten, maar ook in materialen. Waarom zou je iets wat goed is weggooien, terwijl je het ook opnieuw kan gebruiken. ~baker

³⁰ Afgelopen zomer heeft GS/PS een coalitieakkoord vastgesteld waarin staat dat wij lokale en regionale producten op de markt willen brengen en versterken. En dat we dit ook in ons bedrijfsrestaurant willen. ~ program manager

³¹ Na al die jaren, pfoe, wat ben ik wijzer geworden? Nou dat je als persoon, maar vooral ook als organisatie, met mensen om je heen toch een stap kunt zetten opweg naar een duurzamere wereld. Dat het niet iets is wat je over je heen moet laten komen, maar dat je samen toch sterker staat. En dat je als organisatie toch een positie verwerft in de Arnhemse samenleving en dat je daarmee toch meer kunt doen dan wanneer je in je eentje je afval scheidt en zorgt dat je energie bespaart thuis enzo. En dat je andere mensen kunt ondersteunen, kunt helpen. Dat is toch wel een van de belangrijkste dingen. ~ sustainability platform

³² Het is belangrijk dat je het aanjaagt he, van we willen jullie de komende zoveel tijd. Zij vormen een radartje in die hele keten dus als dat goed van de grond komt pak je ook die andere partijen mee. Ja als we een spaak binnen dat wiel goed van de grond hebben, volgen de anderen. ~ policy adviser 2

³³ En ik vind het interessant om te kijken hoe je daar ook andere diensten aan kunt koppelen, educatie en zorg bijvoorbeeld. ~ care farm

³⁴ Ik ben wel benieuwd wat je van die POP3, he al die lokale voedselnetwerken zijn ondersteund, maar wat is nou de uiteindelijke impact is. Daar ben ik echt benieuwd naar, of dit nou echt zoden aan de dijk zet. ~ care farm

³⁵ Kijk waar de gemene deler zit, verbind die en dan kunnen zij de verbindende rol zijn. Zij kunnen dingen bij elkaar brengen. Ze kunnen accommodatie ter beschikking stellen om vergaderingen enzo te gaan regelen. Dus ze kunnen heel veel doen, en dat hoeft niet alleen maar geld te zijn, het kan ook het passiveren. ~ baker

³⁶ Jaja, en het is natuurlijk fijn, dat speelt niet zozeer bij ons maar wel bij andere initiatieven, problemen met de ruimtelijke ordening. Is het onduidelijk als ze weg moeten, dan is het fijn dat je binnen de gemeente een iemand aan kan spreken en die ze op weg helpt binnen die ketting binnen de gemeente. ~ care farm

³⁷ En je kan niet als gemeente zeggen oh dan gaan we dit winkelpand helemaal subsidiëren, dat kan niet. Maar kijken hoe je het kan stimuleren vind ik altijd heel erg leuk. En we hebben gewoon heel erg geluk met Henk op dit onderwerp, die is hier hartstikke enthousiast over natuurlijk. ~ alderman

³⁸ Ik vind het fijn dat we als gemeente kunnen horen, wat zijn de dingen die spelen? Zijn er dingen die wij belangrijk vinden die ergens worden afgeremd. Waarom worden ze afgeremd? Is dat regelgeving? Is het geld? Of is het iets anders? En dat je daarin praktisch mee kan denken. En dan heb je soms als gemeente of als wethouder dat je dingen net wat sneller en beter kan regelen en andere keuzes kan maken. Dus daarin zit ook echt wel de mogelijkheid om iets te doen. ~ alderman

³⁹ Maar goed, daar moet nu wel een vervolg in komen, we hebben nu 1 gesprek gehad, dat was leuk. Maar je moet wel zien dat er voortgang is, en als je ziet dat dat wegvalt, haken mensen af. ~ baker

⁴⁰ Een hele andere manier van voedsel produceren toe moet, en dat regionaler moeten, dichterbij de mensen, minder gesleep over de hele wereld. En dat mensen ook de band tussen consument en de producent zo doorgesneden is. Dat de consument niet weet wat de producent doet, en je ziet een hele bio industrie met dierenwelzijnsproblematiek. Dat gebeurt allemaal achter gesloten deuren in verwegistan. Maar ja zo langzamerhand wordt het wel duidelijk dat het

gewoon moet gebeuren. Ketens moeten korter, kringlopen moeten sluiten, dat je gft afval geen afval is, maar gewoon weer grondstof is voor compost ed. dus dat dat. ~ sustainability platform

⁴¹ Ja, want dat is ons verhaal. Ons verhaal is dat we duurzaam moeten ondernemen van, kijken naar je product. Waar komt mijn product vandaan, waar maak ik het van, wat verkoop ik in mijn winkel, hoe gaan we met de mensen op de werkvloer om, hoe gaan we met de klanten om, en hoe gaan we om met elkaar. Zitten we er alleen maar in omdat we vinden dat we rijk moeten worden, of zitten we erin, we gunnen elkaar iets waardoor we een veel leukere samenwerking krijgen. Dat is veel leuker. We hebben de aarde nodig. je haalt er veel energie uit als je het op deze manier doet als dat je het alleen maar om het geld doet. ~ baker

⁴² Volgens mij kunnen we bijna niet anders meer, maar het is wel lastig, want wat is lokaal? Dan ga je ook regionaal he. Wil je als stad helemaal voedsel, dat kan natuurlijk niet. Je hebt natuurlijk de omgeving, de wereld nodig voor dingen he. Maar ik denk dat je klein kunt beginnen, en dat je het vooral door te laten zien wat je doet dat je zo de impact wel kan vergroten. Maar ja ik geloof er wel in. We moeten daar iets mee. Want ja de mensen vragen erom, die willen niet allemaal het vlees of de producten uit Argentinië, de koeien. Dus ja daar moeten we zeker wat mee, en ik denk niet dat we het oplossen als gemeente he, ik denk dat het regionaal moet. Maar dat we het lokaler moeten doen dan nu het geval is. ~ policy adviser 2

⁴³ Het is geen gezonde situatie. Dat zijn maar 5 inkoopclubs uiteindelijk ook in nl, dat is echt een immense macht he. Moet je voorstellen dat 80% wordt verdeeld aan 5 inkoopclubs. Voor iets wat ons, naja dat dus, volgens mij is er alle reden om dit heel serieus te nemen. En ik voel me toch iets te vaak dat het als een leuke linkse groene hobby wordt gezien, ook stadslandbouw en regionaal voedsel. En ik denk dat dat niet terecht is. ~ city farmer 3

⁴⁴ Ik zou het heel gaaf vinden als mijn vriend erbij kan, maar dat moeten we nog maar zien. Op dit moment hebben we nog zijn inkomen nodig. ~ city farmer 2

⁴⁵ Wat ik toch wel heel erg heb geleerd, dat geldt misschien wel altijd voor ondernemers, maar netwerken is toch wel heel belangrijk. Ik merk wel dat ik gewoon mijn netwerk binnen de gemeente is belangrijk. Ik heb heel veel gehad aan gewoon je kop laten zien op allerlei bijeenkomsten, en de gesprekken aangaan, en dan ontstaan er mogelijkheden en kan je plooiën gladstrijken voordat ze überhaupt een echte kreukel worden. Dus dat vind ik het belangrijkste ~ city farmer 3

⁴⁶ Ik denk dat we wel wat hebben veroorzaakt in Arnhem, en we zijn ook best wel bekend. Ik doe wel een veelheid aan dingen, en dat is nodig omdat het allemaal aan elkaar grijpt. En veel infrastructuur er niet meer is op welk vlak dan ook. Ik had gehoopt, kweekland wel, maar op het gebied van regionaal voedsel dat er meer bereikt zou zijn. Dat meer mensen mijn pakketten zouden nemen, dat meer restaurants zouden werken met regionaal voedsel. En dat blijkt toch nog steeds heel lastig te zijn. Waar dat nou helemaal aan ligt is deels in de ontsluiting en de beschikbaarheid ervan denk ik. Maar deels ook een soort van, mensen zijn wat indifferent, ik vind het eigenlijk niet zo belangrijk toch, op een of andere manier. En ik denk dat daar ook de overheid een rol in kan spelen in de promotie van dat regionaal voedsel als ze dat echt willen dat ze daar echt was gas op moeten zetten. ~ city farmer 3

⁴⁷ En daar hebben we nu het bierborstel nemen we weer van hun af, en voeren we aan de koeien. Maar gaat om kleine hoeveelheden hoor, kan ik een halve dag mn koeien een deel van het rantsoen voeren. Normaal voer ik 700 kilo bierborstel per dag. en zij hebben dan 300 kilo in de 2 weken ofzo. dus dat is maar een heel klein beetje. En wij halen dat nu op om hen een beetje te helpen, maar in principe kan dat eigenlijk niet uit, en moeten we nog iets voor vinden. ~ dairy farmer

⁴⁸ Ik zag ergens wel dat regionaal voedsel leuk en interessant is, maar de hele logistiek die erbij hoort die bestaat helemaal niet meer. Waar vroeger mensen de verschillende buitengebieden reden om de spullen op te halen. Of andersom boeren die vanuit het buitengebied hier naar toe kwamen met echt fysieke marktdagen tot gevolg is er niet meer. Dus zelfs de elstar uit de Betuwe wordt met een vrachtwagen opgehaald, naar Barendrecht gebracht, naar het grote dc van Albert Heijn, het verse dc van AH, en daar samen met andere spullen naar de supermarkt in Arnhem gebracht. Zelfs als het vrij lokaal is maar AH heeft toch meer afstand afgelegd dan je zou zeggen. ~ city farmer 3

⁴⁹ Dat we de afzet kunnen gaan vergroten en ook dat we meer gaan verwerken van producten. En dat we ook, soms heb je veel oogst en wil je eigenlijk dat die producten gaan verwerken, chutneys. ~ care farm

⁵⁰ Je kunt van alles vinden van de supermarkten, maar er is 1 ding dat ze enorm goed onder de knie hebben, en dat is hun logistiek. En daar hebben ze ook alles aan ondergeschikt aan gemaakt eigenlijk. Je ziet dat heel veel producten in de supermarkt zijn ontwikkeld rondom houdbaarheid en transport mogelijkheden en dat soort dingen. En ja als je dit wilt doen dan moet je ook zorgen dat je logistiek net zo strak georganiseerd is. en nee dat lukt op deze manier niet nee. ~ city farmer 3

⁵¹ Maar dat is wel een hogere prijs. en waar gaat de consument dan voor kiezen. Zolang jij en ik kunnen kiezen voor het goedkoopste eten? Als de supermarkten dat ook al doen richting hun boeren, wat het geval is, is het een heel lastig verhaal. Je kunt stimuleren en promoten en chefkoks eraan. Ik had toevallig nog een gesprek met dutch cuisine. Je kan

chef koks aan tafel zetten om dit te promoten, maar ja die burger wil wel, maar de consument denkt er heel anders over. En dat lukt dus alleen maar als die prijsprikkel echt anders gaat zetten, dat ligt echt bij het rijk en europa. ~ program manager

52 Ja dus het vraagt echt om een heel ander ontwerp eigenlijk van ons voedselsysteem, en om true pricing. Precies wat je zegt. En met die €7,25 pak ik zo'n 25 tot 30% marge. Daar betaal ik de boer gewoon een hele eerlijke prijs van. Platgezegd onderhandel ik niet eens met de boer, als hij zegt ik moet 1,50 voor die krop sla hebben, dan krijgt hij dat van mij. En dat is met Albert Heijn anders natuurlijk, die koopt die dingen in voor 29 cent, weet ik veel wat, zodat ze hem voor 39 cent in de winkel kunnen gooien. Naja ik denk wel dat het kan, maar het is wel heel krap en de markt is vrij klein, en ik heb gewoon te weinig tassen, misschien dat ik er meer moet hebben dan wordt het interessant. En wat denk ik ook interessant is als je wat meer zichtbaar bent ook uiteindelijk. ~city farmer 3

53 Wat zie je gebeuren, de ambtenaren zijn bang voor de innovatie. want wie is er verantwoordelijk als het zo mis gaat, wie is er aansprakelijk, wie gaat dat betalen trouwens? ~ food forest

54 Maar er ligt ook een uitdaging dat initiatieven zichtbaar maken hoe zij kunnen bijdragen aan beleidsdoelstellingen van gemeenten, de landelijke overheid. Er zijn initiatieven die zeggen, wij zijn goed bezig, oke maar laat maar eens zien dat je goed bezig bent. Waaraan draagt dat bij? Waarom zou een gemeente jou ondersteunen? Het gaat om het koppelen van doelen van initiatieven bij beleidsdoelen van overheden. En als dat matcht dan heb je een sterk punt en dan kun je ook dingen qua beleid in gang zetten. ~ care farm

55 Maar ja kijk als de groep in nl zo groot wordt dat we alleen nog maar lokaal willen doen dan stappen grote partijen vanzelf in. En als dat gebeurt dan krijgt het een enorme boost. Dat is ook risico van het vak misschien. Ja maar nee het is nu volgens mij. ~ policy adviser 2

56 Ik heb het gevoel dat we in een steeds risicolozere maatschappij leven en met name mensen zichzelf steeds meer indekken voor fouten zeg maar. En elke keer als er dan ergens iets fout gaat maken we er een nieuwe regel bij, nou dat helpt helemaal niet om als klein bedrijf ergens iets op te starten. ~ city farmer 3

57 En ik geloof er ook niet in dat je dat kan forceren als overheid door daar tussen te gaan staan, maar wat je wel kan doen is daarin eisen stellen voor de hele markt. Zodat het ook niet is dat degene die anders willen benadeeld worden door degene die niet willen veranderen. Omdat die geen rekening hoeven te houden in hun prijsberekening om het op een duurzame en eerlijke manier doen. Maar als jij zegt we vinden het echt dat het duurzamer moet dan heb je echt een eerlijkheid naar iedereen. ~ alderman

58 We zijn natuurlijk allemaal onderdeel van het systeem, dat brengt de democratie met zich mee, dus je kunt nooit 1 iemand de schuld geven. We hebben het gewoon best wel ingewikkeld georganiseerd. Dat is vaak met de beste bedoelingen gedaan, maar dat remt op heel veel dingen. ~ policy adviser 1

59 Maar we eten nog geen 20% van de producten die de boeren in nl produceren. Er hoeft maar iets mis te gaan of de hele keten ligt op z'n gat en dan hebben we helemaal geen eten meer. We zijn niet meer gewend om het hier te produceren. ~ councilor

60 Het economische verdienmodel voldoet niet meer aan waar de mens met zijn behoeften en zijn vraag zit. dat is eigenlijk dus een hele grote omslag die er nu gaande is. ~ food forest

61 Ik vind dat we, dat doet het wereldje waarin wij zitten doen dat niet, maar we moeten niet de kracht van lokaal voedsel onderschatten. Dus uiteindelijk als die supermarkten falen zitten we binnen 8 dagen compleet zonder voedsel. En dan is er geen infrastructuur om dat op te vangen. Misschien zou het een keer moeten gebeuren hoor dan, maar dat is echt, stel je voor. Stel de supermarkten dicht zijn waar haal je dan nog je eten? We zijn onafhankelijk gemaakt van die clubs. Weet je, voedsel is nog nooit zo veilig en goedkoop geweest, tot op zekere hoogte, maar als je echt kijkt wat daar achter zit. Ik vind het wel tricky dat voor iets zo belangrijks we ons afhankelijk maken van clubs die eigenlijk in de bodem alleen maar bezig zijn met aandeelhouders, waarde en winstmaximalisatie. ~ city farmer 3

62 En daarbij is het natuurlijk wel de vraag van waar zitten de grenzen voor duurzaamheid en lokaal produceren. En ja heb je alle doelen die je wilt bereiken, kan je die bereiken. En dat gaat natuurlijk wel wijven. ~ alderman

63 Maar ik hoop maar altijd dat dit groter wordt, waardoor het aan de ene kant wat goedkoper wordt zodat mensen die wat minder te besteden hebben dat het ook toegankelijk wordt, en maar dat het ook steeds meer lokaler wordt weet je. Maar het blijft een kantelpunt he, en je hebt mensen nodig die moeten het durven he. ~ alderman

64 Als ze hiermee aan de slag gaan, ja niet zo heel veel rechtstreeks met belastingcenten hoor denk ik, zeg maar een faciliterende rol spelen. En naja goed ze zijn er ook voor als wij er om vragen, het is een hele andere rol dan bijvoorbeeld de gemeente die fysieke leefomgeving is. Afval bijvoorbeeld heeft de gemeente traditioneel gezien een hele rol in gehad, het inzamelen van afvalstoffen en burgers te faciliteren maar dat is al misschien wel 100 jaar oud, en dit thema is vrij nieuw. ~ sustainability platform

⁶⁵Een klein voorbeeld, we zijn met onze boeren in gesprek. En dan kijken ze mij altijd wel een beetje vreemd aan want ik weet niks van het boerenvak, en dat is natuurlijk waar. Maar daarom gaan we nu met de boeren op excursie naar een biologische boer die op dezelfde gronden als waar zij zitten (overwegend zandgrond) al jarenlang biologisch boert en een boterham verdiend. En ik ga ook een presentatie organiseren van heerenboeren als je dat wat zegt. ~ policy adviser 1

⁶⁶ Naja voor elk park hebben we schouwgroepen. Dus bewoners kunnen zich aanmelden voor zo'n groep, en 2x per jaar schouwen we met zn allen zo'n park. Wat vinden jullie van ons beheer en naja. Vaak doen die groepen ook kleine werkzaamheden in zo'n park, werkdagen. Dus ze voelen zich in ieder geval heel erg betrokken. En dat is in de basis heel belangrijk. In het zuiden is een park dat is van niemand en iedereen he. En toen we daar die visie hebben opgesteld is er in dat project ook een bewonersgroep ontstaan en die heeft gezegd ja we willen toch wel meer. Ik weet niet of dat nog steeds zo is, maar er is een klein festivalletje ontstaan bijvoorbeeld. Dus dat is soort van een vliegwiel om toch ~ policy adviser 2

⁶⁷ En ik denk dat daar ook de overheid een rol in kan spelen in de promotie van dat regionaal voedsel als ze dat echt willen dat ze daar echt was gas op moeten zetten. ~ city farmer 3

⁶⁸ We willen toch graag meer fietsen en elektrische fietsen in het centrum. Maar dan heb ik wel bedrijfsruimte nodig en relatief dicht tegen het centrum aan, relatief dure grond. Ja daar kan ik niet mee concurreren met anderen. Maar beste gemeente, je sponsort ook parkeergarages omdat je wilt dat je retail in de stad goed is. Parkeergarages moet ook geld bij, dus dan kun je dit ook doen. Het zijn keuze he, misschien moeten we wat minder parkeergarages, of misschien moeten we wel parkeergarages ombouwen tot distributiecentrum voor regionaal voedsel, misschien is het daar de tijd voor onderhand zeg maar. ~ city farmer 3

⁶⁹ Dan kijk ik liever als overheid naar hoe ga ik dan zulke dingen belonen zonder dat ik het aan de voorkant ga subsidiëren. Maar hoe kan je zo iemand faciliteren of belonen of een platform geven waardoor iemand daarnmee profijt heeft. Maar alles dichtregelen wat de markt laat liggen met subsidies is niet realistisch. ~ alderman

⁷⁰ Dus de buurt ging bezwaar maken op grond van het bestemmingsplan. Een kwekerij is een vrij enge omschrijving, dus daar liep je gelijk tegen beperkingen aan. Dat is wel opgelost maar het meest ideaal plaatje zou zijn dat we een soort binnenplanse ontheffing hebben voor stadslandbouwprojecten. Omdat die zo veelheid aan, het is nooit alleen een tuinderij of alleen een agrarische onderneming, er zit altijd een heel scala aan activiteiten omheen. Het is hetzelfde waar de zorgboerderijen in het begin ook tegen aan liepen. ~ policy adviser 1