



# SYNTHESIS REPORT ASSESSMENT AND PLANNING OF THE UTRECHT CITY REGION FOOD SYSTEM





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## **Authors**

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## TABLE OF CONTENTS

Foreword	V
Preface	VI
Acknowledgements	VII
Executive Summary	VIII
<i>The Utrecht City Region Food System</i>	<i>VIII</i>
<i>Who feeds the Utrecht Region?</i>	<i>IX</i>
<i>Who governs the food system?</i>	<i>X</i>
<i>Strengths, weaknesses, opportunities and threats</i>	<i>XI</i>
<i>Proposals for policy and planning interventions in the Utrecht City Region Food System</i>	<i>XIII</i>
1. Background	1
2. Project methodology	4
2.1 Research team	4
2.2 Two pillars, two phases	4
2.3 Defining local and regional food	5
2.4 Defining the Utrecht City Region	6
3. Describing the Utrecht City Region Food System	8
3.1 Who feeds the city region?	8
3.2 Food processing	17
3.3 Wholesale and distribution	20
3.4 Food marketing, catering and retail	24
3.5 Food consumption	31
3.6 Food waste	36

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4. Sustainability dimensions of the Utrecht City Region Food System	40
4.1 <i>Social sustainability and equity: food and health, access to regional foods, social relations and consumer knowledge</i>	40
4.2 <i>Economic sustainability: retaining the local food dollar, fair and decent jobs, producer access to city region markets</i>	41
4.3 <i>Urban–rural integration: optimised local food production capacity, circular economy and efficient supply chains</i>	42
4.4 <i>Environmental sustainability: agro-ecology, natural resource protection, greenhouse gas emissions and food waste management</i>	42
4.5 <i>Food governance: policy integration and participatory governance structures</i>	43
4.6 <i>Vulnerability and resilience: resilience to shocks, protecting the agricultural resource base and integrating food in urban policies</i>	44
5. Strengths and weaknesses of, threats to and opportunities for the Utrecht City Region Food System	46
5.1 <i>Access to healthy and nutritious food</i>	46
5.2 <i>Job and income creation</i>	47
5.3 <i>Fostering rural–urban linkages</i>	48
5.4 <i>Ecosystem and natural resources management</i>	49
5.5 <i>Participatory and inclusive governance</i>	50
6. Policy and planning interventions for the Utrecht City Region Food System	52
6.1 <i>Food policy support in Utrecht</i>	52
6.2 <i>Proposed planning and policy interventions</i>	53
7. Lessons learned and recommendations	58
7.1 <i>Expand and continue data collection and analysis on regional food</i>	58
7.2 <i>Comparing conventional and regional food systems</i>	58
7.3 <i>Incorporating food in policies for healthy urban living</i>	59
7.4 <i>Facilitate a robust regional food network and common food agenda</i>	62
8. Conclusions	63
References	64
Annex 1: Relevance and analysis of sustainability dimensions of the Utrecht Region City Region Food System	68

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## FOREWORD

Cities and their surrounding areas, known as ‘city regions’, are increasingly concerned about food security and how it is affected by urban growth, escalating urban poverty, food price hikes, climate change, changing consumption patterns and the rise in diet-related health problems. Of particular concern is urban growth, which creates increased demand for the same land and water that also provide vital food and ecosystem services. This challenge calls for integrated territorial development and balanced urban–rural linkages for the benefit of urban and rural population alike.

The city region food system (CRFS) perspective provides a platform on which to build concrete policy and offer investment opportunities to address these developmental issues with the objective to achieve better economic, social and environmental conditions in both urban and surrounding rural areas. Strategies and tools include: the promotion of peri-urban agriculture; the preservation of agricultural land areas and watersheds through land use planning and zoning; the development of food distribution systems and social protection programmes; support for short supply chains and the local procurement of food; and the promotion of food waste prevention, reduction and management.

Building a sustainable and resilient CRFS, however, requires political will – integrating available policy and planning instruments (e.g. infrastructure, logistics, public procurement, land use planning), involvement of various government departments and jurisdictions (local and provincial), and inclusive organisational structures at different scales (municipal, district, etc.). An effective CRFS offers a lens through which this integration and coherence can be addressed at a specific territorial level. CRFS can also operationalise linkages between Sustainable Development Goals: SDG 2 (food security, nutrition and sustainable agriculture); SDG 11 (inclusive, safe, resilient and sustainable cities); and SDG 12 (sustainable production and consumption).

CRFS implementation is in line with the recently adopted New Urban Agenda (October 2016) that emphasises the need for cities to “strengthen food system planning” and recognises the vulnerability of long-distance food supply systems. The Milan Urban Food Policy Pact – the first international protocol, currently signed by more than 160 cities, including the cities in this series of reports – also calls for the development of more sustainable and resilient urban food systems. Signatory mayors from cities around the world pledged to develop actions and strategies to improve their urban food systems with strong urban–rural linkages.

FAO and RUA Foundation partnered to support local institutions in understanding and operationalising a CRFS in seven cities selected from across the globe to represent their regions – Lusaka and Kitwe (Zambia), Colombo (Sri Lanka), Medellín (Colombia), Quito (Ecuador), Toronto (Canada) and Utrecht (The Netherlands). All results presented here describe the experiences from each city in terms of planning and informed decision-making, prioritising investments and design of sustainable food policies and strategies to improve the resilience and sustainability of the entire food system. Combined, this CRFS knowledge culminates in a set of tools to support individual city regions around the world to assess and better plan their own food system.



Hans Dreyer  
*Director Plant Production and Protection Division, FAO*



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*Director RUA Foundation*

## PREFACE

Utrecht stands for 'Healthy Urban Life for All'. The city's population is expected to grow from 350,000 in 2018 to 400,000 in 2025. In Utrecht, we will use the opportunity offered by this growth to become an even better city on all fronts. A city where health is at the heart of everything we do. A city of healthy inhabitants in a healthy living environment, working towards a healthy economy. A healthy and sustainable food environment is inextricably linked to this. As Alderman for Public Health, I consider it important that the layout of the city makes it easier for people to make healthy choices. For example, by promoting outdoor play, cycling, walking and healthy eating. I am committed to reducing health inequalities, and the design of a healthy environment can be beneficial in this regard.

A green and pleasant living environment is currently being realised in the new *Rijnvliet* residential area of Utrecht, which was designed according to the food forest principle and in cooperation with residents and local parties. Different types of food initiatives and gardens, such as *Food For Good* and the *Voedseltuin Overvecht*, contribute to a social and inclusive city. And *The Green House*, a new hospitality concept in the station area, shows in an innovative way how to focus on circularity, from building materials through energy consumption to cooking with healthy and regional food. The *Diagnosis Food & Health* connects regional, national and international networks and initiatives in the field of Food & Health and is an accelerator for innovation and regeneration. These are all fine examples of ways that Utrecht is concretising a healthy and sustainable food environment, and which I hold dear on the basis of my public health portfolio.

Insights into the Utrecht City Region Food System offer new opportunities to shape 'Healthy Urban Life for All'. This is the first time that research into the food system in the Utrecht region has been carried out in such a broad manner. The research report provides a good opportunity to enter into discussions with parties in the city about opportunities, bottlenecks and our role as local government. In addition, the research provides us with tools for formulating joint ambitions on the theme of food, exploring where cooperation is needed and learning what we, as local government, can add.

One of the recommendations, the need for meeting and exchange, has already been taken on board. For example, together with *Utrecht University*, *Rabobank Utrecht*, the *Economic Board Utrecht* and the *Diagnosis Food & Health*, we launched the *Food-Print Utrecht Region* food network.



Victor Everhardt

Alderman for Public Health, Municipality of Utrecht

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## EXECUTIVE SUMMARY

### The Utrecht City Region Food System

Utrecht is the fourth largest city in the Netherlands. Utrecht is located in the centre of the Netherlands, forming an important infrastructure nexus between the cities of Rotterdam, The Hague and Gouda to the west; Amsterdam and Hilversum to the north; Den Bosch and Eindhoven to the south; and Amersfoort, Arnhem and Nijmegen to the east. Together with the cities of Amsterdam, The Hague and Rotterdam it forms the metropolitan ‘Randstad’ area, the economic heart of the Netherlands.



Source: [ontheworldmap.com/netherlands/netherlands-political-map.jpg](http://ontheworldmap.com/netherlands/netherlands-political-map.jpg)

The City of Utrecht and nine surrounding municipalities form the U10 region (hereafter ‘Utrecht region’), selected as the Utrecht City Region for the purpose of the project. In 2015, the Utrecht region had a population of 730 816 inhabitants (1 January 2015), with predicted growth to 830 000 by 2030. The Utrecht Region shows high levels of urbanisation, although some of the municipalities still have rural characteristics with areas of grasslands (south and west of Utrecht) and park estates (east and northeast of Utrecht).

## Who feeds the Utrecht Region?

### Food production

Data on food supply is scarce, not least due to the strong export focus of Dutch agriculture. Nationally, 65 percent of the food consumed is sourced from Dutch farmers, but little is known about food flows within the country. Based on expert interviews and data from main local food distribution initiatives, it is estimated that agriculture in the Utrecht Region provides at most 5–10 percent of all the food consumed in the region. **The Utrecht Region thus plays a minor role as provider of food to its consumers.**

Agriculture in the Utrecht Region consists mostly of grassland for dairy farming. A smaller number of farms grow fruit, mostly apples and pears, potatoes, wheat and sugar beet. Vegetable production is almost non-existent. Agriculture in the Utrecht Region is relatively small-scale and faced with an aging farmer population. It is also characterised by its multifunctionality where primary production is combined with leisure, nature conservation and social or educational care services for vulnerable groups.

In the cities of Utrecht and the neighbouring city of Zeist, one finds a large variety of urban and peri-urban agriculture activities, ranging from allotment gardens, community and school gardens, to semi-governmental urban farms and income-generating gardens and farms. Rather than producing large volumes of food, these initiatives provide an important range of social and educational services to the Utrecht Region.

### Food processing and manufacturing

Food processing in the region is largely disconnected from local production. The main food processing sectors in terms of employment (bread and pastry, alcoholic drinks, coffee and fish products) **primarily depend on inputs from outside the Utrecht Region.** Some industries, such as beer breweries, may have a local marketing strategy. The single largest food processor is a coffee producer (Douwe Egberts). **Dairy processing is the largest sector with potential for local or regional processing and marketing, mainly through on-farm processing of cheese and other dairy products.** The number of people employed in fruit processing is limited.

### Food wholesale and distribution

Two companies (Willem&Drees and Local2Local) are the main distributors of local and regional food in the Utrecht region. A third provider (Rechtstreex) recently ended its activities. Willem&Drees has stopped supplying local food to supermarkets, and now focuses on online sales and home deliveries. Initiatives experience fierce competition from commercial home delivery services (e.g. Hello Fresh) that provide food boxes without clear local provenance. **The number of distributors that explicitly provide regional and local food remains small.**

### Food marketing, catering and retail

Utrecht consumers buy 80 percent of their food in supermarkets. **The market share for direct sales of local food, through farm shops (e.g. Landwinkel) and weekly farmers' markets, is limited.** Nonetheless, there is a growing number of community-based initiatives, such as consumer buying groups or box schemes. Several well-known restaurants (e.g. Karel V, Vaartsche Rijn, Colour

Kitchen) explicitly put local and regional food on their menu, and there is a special logo (Flairtje) for restaurants that work with Fair Trade and regional products. Regional food markets (*Streekmarkten*) are organised in Utrecht in few times a year, but **the volume of local production at these and the weekly organic farmers' market is relatively small.**

## Food consumption

Consumers are increasingly buying sustainable food products (organic, UTZ certified, *beter leven*, Fair Trade/*Max Havelaar*, Marine Stewardship Council (MSC)). Data from the Municipal Public Health Monitor 2016 show that 18 percent of respondents indicate that they often or always buy regional food products. This percentage is relatively low compared to consumers who reported that they buy often or always organic (65 percent) or seasonal (32 percent) food.

There are increasing **concerns with regards to diet-related health issues**. National studies show that Dutch people on average consume insufficient fruit, vegetables, fish and fibre. Unhealthy food consumption patterns contribute, next to other factors, to overweight (ranging from 33 to 57 percent for different municipalities in the Utrecht Region) and severe overweight (9 to 16 percent). Diabetes type I and II (ranging from 33 to 49 persons per 1 000 inhabitants) is increasingly prevalent, though numbers are still lower than national averages.

## Food and organic waste management

In the Netherlands, in 2009, 1.4 to 2.5 million tonnes or 83 to 151 kilogram per capita of food waste was generated along the entire food chain. No specific data are available at the level of the Utrecht Region. In 2011, total food waste was estimated at 89 to 210 kilogram per capita, suggesting **an overall increase in food waste. This implies that the Netherlands was not on track to meet national targets to reduce food waste by 20 percent in 2015.** Today, Municipality of Utrecht aims to support food waste prevention initiatives as part of its Healthy Urban Living policy 2015–2018.

## Who governs the food system?

Several initiatives supported by the Utrecht Municipality, such as Eetbaar Utrecht (Edible Utrecht) and Lekker Utrechts (Tasty from Utrecht), successfully put regional food on the agenda in the past years (2009–2014). Currently, **the main policy framework in the Utrecht Municipality for food issues is Public Health policy**, and a “team food” at this department is leading food policy development. The policy focuses on promoting Healthy Urban Living, and with key policy documents such as “Building a healthy future” the municipality aims to improve public health with healthy, sustainable and local food, and enhances the societal and economic movements by connecting to developments, supporting and stimulating them.

Relationships with other relevant actors for food policies at the level of the Utrecht Region are still less developed, although policies state that ‘the Municipality will connect with regional food developments and take up a facilitating and stimulating role’. This includes connections with other municipalities in the Utrecht Region, with the Province of Utrecht, but also with European programmes.

## Strengths, weaknesses, opportunities and threats

The Utrecht City Region Food System is characterised by the following strengths:

- Inhabitants in the Utrecht Region **generally have access to sufficient, affordable and safe food**;
- The number of farm businesses that provide non-agricultural services (including care and recreation) is relatively high, thus **increasing the connection between producers and consumers**;
- From a food governance perspective, there is momentum to integrate food further into policies, agendas and concepts, and participatory decision-making and networking.

Weaknesses of the Utrecht City Region Food System are:

- **Large differences in diet-related health issues among different social groups**;
- **A regional food system economy that is small and under pressure from large-scale farming**;
- **Few resource linkages between the city and more rural areas.**

Threats include:

- The inability of regional food systems to grow, **being outcompeted by other sustainability labels** (such as organic food) **that respond better to consumer demand**;
- The growing intensification of agriculture in the region may **cause a further disconnection between producers and consumers.**

There are opportunities to:

- **Increase access to healthy and nutritious food.** Regional food marketing initiatives have over the past years improved the quality of their services and have become more easily accessible through the internet. Aggregation of data on sales, logistics and consumer profiles may offer new opportunities to target specific individuals and communities.
- **Promote food-related business and employment.** The current political and socio-economic context in the Utrecht region offers opportunities for regional food businesses and networks connecting a wide range of sectors (education, energy, waste management, recreation, etc.).
- **Fostering rural-urban linkages and a circular economy.** In the medium term, there are opportunities for regional food initiatives to collectively valorise nutrient flows (organic waste, sewage sludge) from the city and use these – processed safely – in agriculture or energy production. This may also offer new opportunities for business development in a circular economy.
- **Promote ecosystem services and natural resource management.** The Utrecht region is characterized by several important cultural landscapes and ecological values which were historically shaped in co-production with agricultural land use. These features can be strengthened further and linked to recent national policies on “nature inclusive agriculture”.

Figure 1:  
Stakeholder  
workshops



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## Proposals for policy and planning interventions in the Utrecht City Region Food System

Four thematic priorities for exploring and developing (policy) interventions were identified through a series of stakeholder workshops in 2017. These priorities were selected, based on stakeholder interest, knowledge and available resources. Potential collaborative strategic actions among public authorities, civil society and private sector were identified as follows:

**1. More local and regional food on the plate:** Actively support local and regional food markets and thereby contribute to a more robust city region food system.

*Collaboration and coordinated action between municipalities in the region:* Developing regional food markets requires improved coordination between urban food demand and supply of regional food products from farm businesses located in surrounding municipalities. This calls for increased visibility and coordination of food policies by the City of Utrecht and other municipalities within the Utrecht Region and the Province of Utrecht. It also requires increased visibility of regional foods (use of Food Awards, product logos).

*Public procurement of regional food products:* Set clear targets for the share of regional food in public food services. Shares of regional food can be gradually increased, so that producers can adapt production to growing demand. Utrecht's current municipal catering contract only includes targets on organic food.

**2. Further develop the role of food in a healthy and inclusive city:** Utrecht municipality has adopted “healthy urban living” as the main framework for food policy and is developing various food related policy actions. However, links between food, health, education and social inclusion policies require further strengthening and development. This is already partly taken up within the national City Deal: Food on the Urban Agenda – a collaboration for best practice exchange and policy development of 12 Dutch cities and three national ministries – in which the city of Utrecht is leading the cluster on “Awareness raising, health and social inclusiveness”. Development and monitoring of related indicators can support further policy formulation and implementation.

**3. Increase recognitions and more permanent support for urban agriculture, community and allotment gardens where these offer opportunities to strengthen a social economy:** Many professional urban agriculture businesses are fragile and rely on financial remuneration for social and health services from – often temporary – policy schemes. Community gardens and allotment gardens have clear and important social and ecological impacts, but lack recognition and support to guarantee their continuity. Development and testing of mechanisms that measure and remunerate social and ecological services provided by urban agriculture is needed, along with initiatives that strengthen corresponding business models.



Figure 2:  
A community garden  
complex in Utrecht

©FAO/ Koningshof, Utrecht

**4. Strengthen integrated food governance mechanisms:** There is a need to further develop mechanisms for integrated food governance within the Municipality of Utrecht and the overall Utrecht Region. This involves both the integration between different policy sectors within the municipality, as well as coordination and collaboration among municipalities and other public authorities (province, LEADER, etc.) within the U10 region. Also, mechanisms are needed for inclusive and participatory food governance that involve stakeholders from civil society and private sector actors. Their engagement in regional food policies and strategies will enhance their effectiveness and societal support.

## 1

## BACKGROUND

With a population of 334 176 (1 January 2015) and expected to grow to about 420 000 inhabitants in 2030, the City of Utrecht is the fourth largest city<sup>1</sup> in the Netherlands (CBS, 2015). Located in the Province of Utrecht, in the centre of the Netherlands, it forms an important infrastructure and economic hub.

Figure 3:  
Map Province  
of Utrecht with  
municipal boundaries



Source: [www.provincie-utrecht.nl/publish/library/881/gemeentegrenzen\\_januari\\_2011.pdf](http://www.provincie-utrecht.nl/publish/library/881/gemeentegrenzen_januari_2011.pdf)

The City of Utrecht is surrounded by several smaller municipalities, including Bunnik, De Bilt, Houten, IJsselstein, Nieuwegein, Stichtse Vecht, Woerden, Vianen and Zeist (see Figure 3). Together these ten cities form a network, U10 (further called the Utrecht Region), that collaborates on specific projects or plans.

The Utrecht Region is largely urbanised, albeit with remaining areas for agricultural production (mainly grassland) and nature conservation (park estates, forest and open areas). Compared to expected population growth in the Province, and to national growth, the Utrecht Region has a much higher expected growth rate of 14 percent until 2030 ([Afdeling onderzoek, Gemeente Utrecht, 2013](#)).

The Utrecht City and Region population is characterised by a high percentage (69 percent) of people between ages 19 and 64. The population generally has high levels of education: 53 percent of the

<sup>1</sup> Municipality of Amsterdam: 821 752; The Hague 514 861; Rotterdam 623 652 as of 1 January 2015 (CBS, 2015)

workforce that lives in the Municipality of Utrecht has finished a 'higher education' (Bijl et al, 2015). On the east of the city, several prominent knowledge institutions are located: the University of Utrecht (focus on life sciences) with its University Hospital; the *Rijksinstituut voor Volksgezondheid en Milieu* (State Institute for Public Health and Environment); and the *KNMI* (Royal Dutch Meteorological Institute). In the west and south of the region, there is a strong presence of logistical and distribution companies, as well as small businesses.

Agricultural land use in the Province of Utrecht declined two percent between 1996 and 2006 (Linskens, 2015). Agricultural production systems are strongly characterised by multifunctional agriculture, small-scale and hobby farming, and next to production, offer important other services including recreation and nature stewardship. In 2015, only 0.7 percent of the population in the Utrecht Region worked in agriculture and only four percent in food related services (EBU, 2016, original data from *Provinciaal Arbeidsplaatsen Register (PAR)*).

When comparing regional household income figures to national figures, the Utrecht Region has a relatively large number of higher-income households. In the region 25.1 percent is classified as 'higher-income', while 18 percent of the households are categorised as low-income households (Gemeente Utrecht, Afdeling Onderzoek, 2013). This translates on the one hand into consumer interest in buying healthy and sustainable foods, and related opportunities for local/regional producers, while on the other hand this contributes to large disparities in (diet-related) health status.

In 2016, 33 percent of the inhabitants in Utrecht City was classified as being overweight, while 21 percent of the population with low education was diagnosed as diabetes type II (Utrecht Municipality, 2017). Figures are similar or higher for other municipalities in the Utrecht Region.

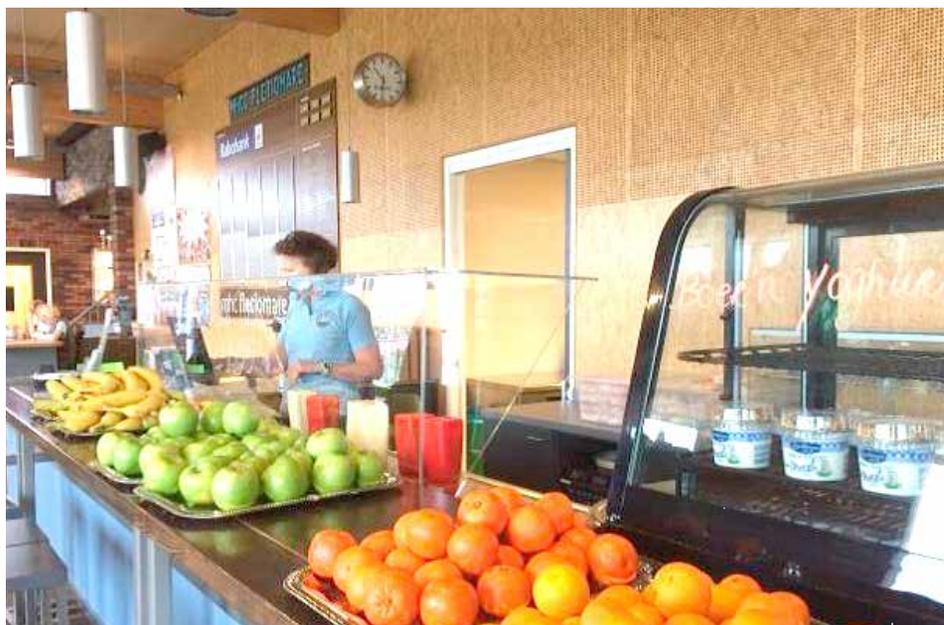


Figure 4:  
Promoting healthy  
food offer

With urban population growth and increasing recognition of the relation between food consumption and public health, demand for healthy and sustainable food will increase. Coupled to increasing consumer interest and the many (social) and business initiatives that are being developed in this area, healthy and sustainable food offers new opportunities for the City of Utrecht and the Utrecht Region.

In 2015, the City of Utrecht has adopted “healthy urban living” as a key policy framework ([www.utrecht.nl/bestuur-en-organisatie/utrecht-stad-van-gezond-stedelijk-leven-voor-iedereen](http://www.utrecht.nl/bestuur-en-organisatie/utrecht-stad-van-gezond-stedelijk-leven-voor-iedereen)). This framework also provides the basis for its food policy and various food related policy actions. **Its vision is “Healthy and sustainable food for the whole of Utrecht”** (PowerPoint presentation Municipality of Utrecht 08-11-2017, see also Box 1). For this to happen, working at the city region scale is crucial to ensure the preservation and protection of agricultural areas and the production and processing of locally grown food.

**Box 1:**  
The Utrecht food  
vision

*The City of Utrecht envisions:*

*...A visible and tangible change of the Utrecht **food environment** that will stimulate Utrecht citizens to adopt a different **food behaviour** and that will contribute to the **national and international visibility** of Utrecht as healthy growing city...*

*...That everywhere in Utrecht **healthy and sustainable food** is sold and consumed by all its inhabitants, that “**edible green**” is highly present in public spaces and that the **agricultural landscape** will be cherished. Initiatives, entrepreneurs and professionals (including the care and educational sectors) profile themselves around the **innovative** use of food and food consumption. Food forms an integral part of policy, progress is monitored and the municipality provides a **good example**. Every year, progress in the area of food will be publicly celebrated with a **harvest festival**, which will also offer possibilities for other forms of **networking and exchange**...*

*...By the end of 2022 (the end of the next period of the municipal council administration), Utrecht will be a city where its citizens eat healthy and **tasty** fruits and vegetables **grown in the region**. People **grow their own food** on facades, in offices, in public squares and green areas. Every person, young or old, born in Utrecht or more recently settled, will share in the growing and cooking of food. Utrecht is the **market** for local, sustainable and **Fair Trade** food products. There will no longer be any food waste, as this will be used as **inputs** in producing new goods. Utrecht is the **gastronomical centre** of the Netherlands where one can enjoy “**Utrechtse Cuisine**”.*

***...For everybody, healthy and sustainable food choices are an obvious requirement for healthy people and a healthy planet ...***

(Translated by RUAf, from a Powerpoint by the Municipality of Utrecht, 08-11-2017)

# PROJECT METHODOLOGY

2

## 2.1 Research team

The City Region Food System (CRFS) assessment in the Utrecht Region was coordinated by a team of researchers from the RUA Foundation. The RUA project team engaged with various contact persons within the Utrecht municipality and with a large range of stakeholders (government, non-government, community groups, researchers and private sector) by engaging in a series of five multi-stakeholder workshops.

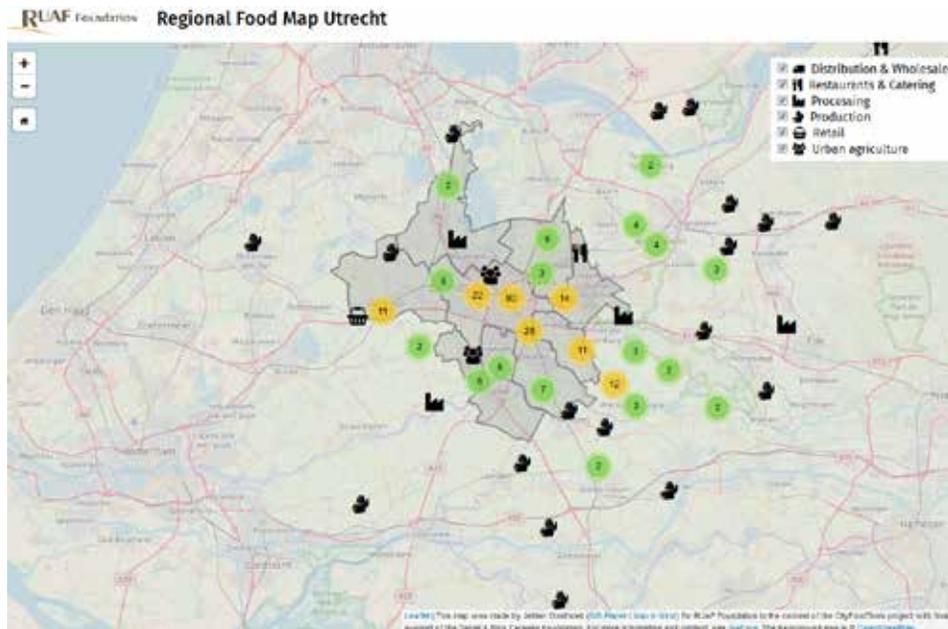
## 2.2 Two pillars, two phases

The CRFS project in Utrecht consisted of two pillars and two phases.

The first pillar was based on secondary research, involving the collection and analysis of secondary data on the (city region) food system. This research addressed the following questions: Where does the food consumed in the region come from? How much food and what type of food is produced and processed in the region? How is food distributed and retailed? What are the important consumption patterns in the region, and what are the food-related health concerns? How much food waste is produced, and what happens to the food and organic waste? The research was shaped by the extent to which secondary data is available about the (city region) food system, as well as data quality.

Secondary data collected can serve in future to set respective monitoring baselines. For this purpose, the project team prepared a data set that includes a variety of food businesses that produce, process, wholesale, sell (through retail) and work with regional food products. Information from this data set can be subtracted to count the number of food businesses that produce or work explicitly with regional food. With help of a GIS expert (GIS Planet) an online map with regional food businesses was prepared (see Figure 5).

Figure 5:  
Screen shot of  
Regional Food Map  
Utrecht



Source: [www.ruaf.org/regionalfoodmaputrecht](http://www.ruaf.org/regionalfoodmaputrecht)

The second pillar involved a multi-stakeholder approach to identify and engage stakeholders in the city region food system, test city region food system concepts and explore options for a common food agenda, food policy and implementation.

In the first phase from March to December 2016, the project team conducted a quick scan of available secondary information and data and held several interviews with key stakeholders. As part of this process, the Utrecht City Region was defined and concepts of local and regional food were agreed upon. Based on the outcomes of five multi-stakeholder workshops organised by the Municipality of Utrecht in the framework of the *Food Smart Cities Programme*, and on the research, the project team formulated four thematic priorities for further in-depth assessment: 1) Regional food systems; 2) Healthy urban living in relation to food; 3) Urban agriculture; and 4) Food governance. In the second project phase from January to May 2017, the project team gathered additional information on these four themes which were discussed with multiple stakeholders. This resulted in a SWOT and sustainability analysis of the regional food system and the identification of specific policy and planning proposals.

## 2.3 Defining local and regional food

In estimating the percentage of food that is produced, processed and marketed in the Utrecht City Region, it is important to distinguish between:

- products that are explicitly labelled as regional food, and
- food products that are de facto produced regionally, but where such information on provenance is not included on the packaging information or at the retail point. For instance, dairy products in the Utrecht region may partially, or even largely, come from dairy farms in the Utrecht City Region, but in most cases this is not marketed as such.

Another important consideration is that several food products that are sold as regional or local products are relying on inputs from outside the region. This is especially relevant for food processed in the region (for example, coffee roasting or beer brewing), but also for animal production, which to a considerable degree relies on feed produced outside the region or country.

Criteria that are generally applied to define local or regional food include the geographical distance to the point of production, implicitly assuming lower environmental impacts associated with food transport ('food miles'), as well as assuming that spatial proximity will favour closer and fairer producer-consumer relations. In the Netherlands a common measure – for example, applied for regional produce sold by Willem&Drees, a regional food distributor – is a distance of 50 kilometres. However, a region of 50 kilometres around the city of Utrecht represents a region considerably larger than Utrecht Region, with other cities such as Arnhem, Den Bosch, Rotterdam, Amsterdam and Almere located within this distance.

Another common approach for defining local or regional food is to define a clearly delimited region of origin with specific natural and socio-cultural characteristics, which in some cases may translate into particular and distinctive product qualities. In the Utrecht City Region, this approach has been adopted by the *Lekker Utregs* initiative, which defined a precise region of origin from which local food products ought to come.

## 2.4 Defining the Utrecht City Region

After weighing different options<sup>1</sup>, the project team decided to select the U10 region (hereafter referred to as the 'Utrecht Region') as the boundary of the Utrecht City Region (see Figure 6 and 7). The Utrecht Region consists of the municipalities of Utrecht and nine surrounding municipalities: Bunnik, De Bilt, Houten, IJsselstein, Nieuwegein, Stichtse Vecht, Woerden, Vianen and Zeist. The rationale for choosing this specific city region are:

- **Data availability and ability to aggregate municipal data:** Many data sets and statistics are disaggregated at national, provincial and municipal level. The Utrecht region follows municipal boundaries.
- **Level of connectivity:** The Province of Utrecht is home to different larger cities, including the cities of Utrecht and Amersfoort with its respective surrounding areas. Other parts of the province are more focused on cities in neighbouring provinces (Amsterdam, Rotterdam, Ede and Wageningen). The Utrecht Region is concentrated around the municipality of Utrecht, and there are very strong connections, in terms of flows of people, employment, goods and services, between the different municipalities in the region.
- **Influence of the city and ability to take policy actions:** U10 is an existing network of municipalities that already takes joint decisions and implements (policy) actions. Several member municipalities (Zeist, De Bilt, Bunnik, Houten and Utrecht) indicated interest in joint food system work.

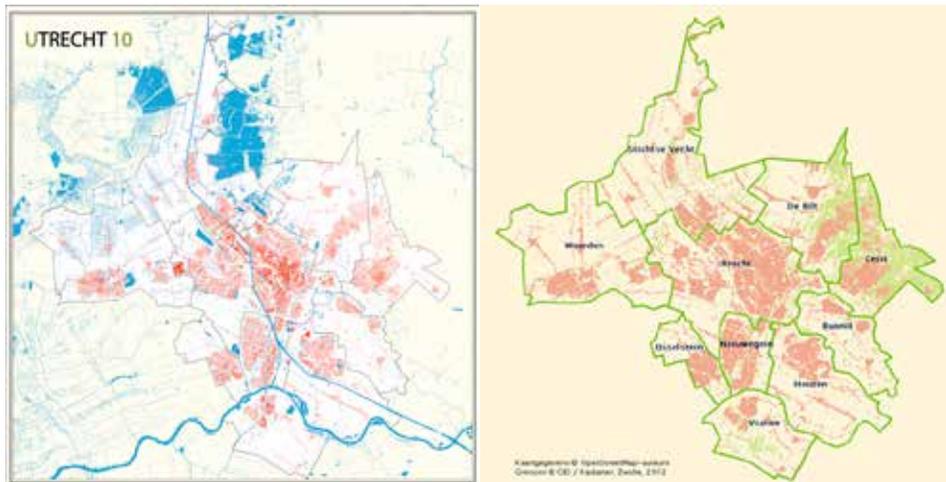
<sup>1</sup> The other options identified by the project team included: Utrecht municipality, Utrecht province, Stadsgewest Utrecht (urban region), Grootstedelijk agglomeratie Utrecht (large urban agglomeration) and a 'custom-made' City Region, including the region defined by local food marketing initiative 'Lekker Utregs'.

On this basis, the U10 region was selected as the most appropriate city region with sufficient data availability and potential for generating food policy processes at a territorial scale.

The U10 network of municipalities currently works together in areas such as Economy, Spatial Planning, Residential Planning, Social Development, Sustainable Development and Energy Transition. Thematic working groups discuss ideas and formulate plans, and individual members of the working groups present these to their own municipal councils. Working groups may also decide to discuss important topics in more formal settings. Any number of network members may decide to jointly collaborate on a specific project, programme or funding initiative. Other municipalities in the Utrecht Province may also join specific working groups if they are interested.

An Administrative Coordination Meeting (*Bestuurlijk Coordinatie Overleg*) is held twice a year to reflect on any progress made and on the functioning of the U10 network in general. Members of this meeting include the leaders of the thematic working groups as well as the Mayors of each U10 member municipality (U10, 2015).

Figure 6 and 7:  
Map of Utrecht  
Region (U10)



Source left map: Map map, 2017 (original data: Basisregistratie Topografie, Kadaster, 2017);  
Source right map: [u10.buurtmonitor.nl](http://u10.buurtmonitor.nl)

# DESCRIBING THE UTRECHT CITY REGION FOOD SYSTEM

3

## 3.1 Who feeds the city region?

This section seeks to answer the following questions:

1. Who feeds the city region?
2. What are the characteristics of the food production sector in the region?
3. Which food producers supply to the city regional market?
4. What role does urban agriculture play in the city of Utrecht and the Utrecht Region?

### Food production at a glance

- 2 228 farms (Province of Utrecht, 2016), a 22 percent decrease compared to 2011
- 482 farms in the Utrecht Region, 48 of them (5.7 percent) explicitly produce for the regional market
- 4 hectares average farm size
- Main products: dairy (milk and cheese) and fruits (apples and pears), often combined with other multifunctional services
- At least 70 different urban agriculture farms or gardens found in the Utrecht Region
- Food self-sufficiency for the Utrecht Region is less than 10 percent, with maximum 1 percent covered by urban agriculture.

### Agricultural production in the Utrecht Region

Agriculture in the Province of Utrecht, and the Utrecht Region, mainly involves dairy farming on its lower-lying grasslands. South and west of Utrecht City fruit production is prevalent on more sandy soils. Potatoes, wheat and sugar beet are grown on much smaller scale. There is hardly any production of vegetables in the Utrecht Region. Compared to the rest of the country, the agricultural sector in the Province of Utrecht can be characterised as relative small-scale, with a strong multifunctional character ([Provincie Utrecht, 2011](#)).

Agricultural production in the Utrecht Region benefits from the availability of a well-educated and well-trained labour force, and a well-developed infrastructure and logistics system. However, and similar to other areas in the Netherlands, the Province of Utrecht is faced with an aging farmer population. Some 79 percent of farmers cultivating arable land are aged 55 and above and do not have a successor. For dairy farmers this percentage reaches 43 percent ([CBS, 2016](#)). High prices of land and environmental pressures (high population densities) constitute some of the other threats

**Table 1:**  
Number of farm  
businesses in the  
Utrecht Region, by  
type (2016)

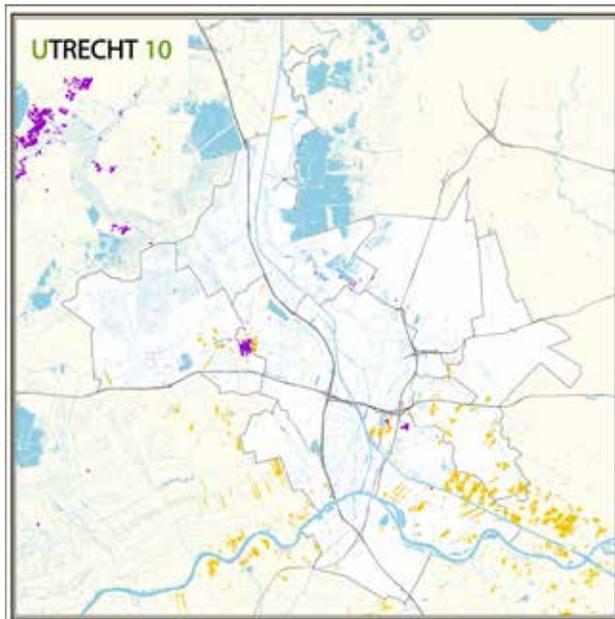
	BUNNIK	DE BILT	HOUTEN	IJSSELSTEIN	NIEUWEGEIN	STICHTSE VECHT	UTRECHT	VIANEN	WOERDEN	ZEIST	TOTAL
Arable land/horticulture in combination with animal farming	6	7	6			4	6	4	2		35
Rearing/keeping of other animals			1	1	3		2	3	1	1	12
Rearing/keeping of horses and donkeys	1	6	4	3		4		1	3		22
Rearing/keeping of sheep	2	9	10	1		13	2	6	16		59
Rearing/keeping of dairy cows	35	44	34	18	1	130	17	25	137	4	445
Aquaculture (freshwater)									1		1
Rearing/keeping laying hens	2	2	1				1	2			8
Rearing of other animals for meat and sucklers	9	13	14	7	1	18	10	11	22	1	106
Production of apples and pears	10		33	1	3	3	6	4	8	2	70
Production of cereals, pulses and oilseeds	2		2			2	2	4			12
Production of vegetables (open-field)	3	2	3		1	6	3		10		28
Production of open-field small fruit	1		5			1	1	2	4		14
Production of other perennial crops			1				1	1			3
Production of herbal and/or medicinal crops, spices		1									1
Production of fibre crops									1		1
Rearing of pigs	1		8	3		2			7	2	23
Sea and coastal fishery					2						2
Total	72	84	122	34	11	183	51	63	212	10	842

Source: Provincie Utrecht, Provinciaal Arbeidsplaatsen Register (PAR), 2016

to the sector. Average farm size is four hectares (Provincie Utrecht, 2011).

In 2016, the Central Bureau for Statistics (CBS) counted 2 228 farms in the Province of Utrecht, including hobby farmers and micro-scale farms<sup>1</sup>. This is a decrease of 22 percent in the number of farms as compared to 2011. About four percent of all farms in the Province produce organically (CBS, 2016). Table 1 provides an overview of farm businesses for the Utrecht Region. In 2016, 842 farm businesses were registered, with more than 50 percent of these businesses involving dairy farms (Provincie Utrecht, 2016). See also Figures 8 and 9.

<sup>1</sup> The national agricultural statistics study (landbouwtellingen) defines hobby farmers and small agricultural businesses, as farm businesses with an annual turnover between EUR 3 000 and EUR 25 000. This excludes private persons who keep a few animals or who have a vegetable garden. The group is largely formed by elder farmers and entrepreneurs, and by entrepreneurs who have other sources of income next to their farm income. For example, one-fifth of the hobby farmers receive elderly welfare payments (AOW).



**Figure 8:**  
Map of the Utrecht  
Region with fruit  
production (orange)  
and greenhouse  
(purple)

Source: Map map, 2017 (original data: Basisregistratie Topografie, Kadaster, 2017)



**Figure 9:**  
Map of the Utrecht  
Region with  
grassland (light  
green) and arable  
farmland (dark  
green)

Source: Map map, 2017 (original data: Basisregistratie Topografie, Kadaster, 2017)

### Food self-sufficiency in the Netherlands

According to a 2015 *WRR report*, 65 percent of Dutch food consumption is actually produced in the Netherlands (WRR, 2015). This would imply that the Netherlands imports 35 percent of its food requirements.

At the same time, the Dutch agricultural sector exports a large part of its products. The Agricultural Economics Institute (LEI) calculated the 'degree of self-sufficiency' of the agricultural sector, being the proportion of national production compared to national consumption. A 2011 report concludes that production of cheese, veal, poultry meat, fresh vegetables, consumption potatoes and sugar(beet) is far above national consumption demand, while for other products such as beef, fish, fresh fruit and wheat, national production is below consumption demand (see further Table 2).

**Table 2:**  
Degree of self-sufficiency of the Dutch agricultural sector (being the proportion of national production compared to national consumption)

FOOD PRODUCT TYPE	SUB-TYPES	CALCULATED DEGREE (AS PERCENTAGE) OF SELF-SUFFICIENCY (2009 DATA)
Dairy products	Cheese	185*
Eggs	Eggs	350*
Meat products	Beef	65
	Veal	730
	Poultry	240*
	Pork	265*
Fish	Fish	80
Vegetables	Fresh vegetables	460
Fruit	Fresh fruit	55
	Apples	250
	Pears	155
	Exotic fruits	0
Carbohydrates	Consumption potatoes	190*
	Wheat	60
	Sugar(beet)	215

Original source: LEI/Eurostat, Productschappen; (Van der Knijff et al, 2011); source for figures with \*: Wageningen University & Research, 2015.

In reality, however, the picture is far more complex, as the same products are both exported and imported. Similar to many industrialised countries, the Dutch food system is characterised by a large dependence on national and international trade, a more centralised, consolidated supply chain with greater global integration, reduced reliance on local production and greater consumption of processed food (processing industry)- see also Box 2.

At the same time, however, and in response to specific consumer demand or policy concerns linked to more localised food systems, existing and new private sector and civil society players are trying to reconnect producers and consumers. They are also trying to promote a diversity of urban agriculture initiatives, short supply chains and procurement of more local products, regional food hubs and food enterprises and the promotion of more sustainable food waste management and food consumption.

The Dutch agricultural sector has been a frontrunner of global industrialisation. In the decades following World War II, the Dutch agricultural sector has seen high levels of mechanisation, specialisation and large-scale farm development. From the 1980s onwards, automation and the use of (high-tech) information technologies expanded significantly. Use of artificial fertilisers increased from 160 000 tonnes/year in the 1960s to 500 000 tonnes/year in the 1980s. The same holds for use of pesticides and herbicides as well as that of concentrates (animal fodder with high protein and carbohydrate content).

This transformation of the agricultural sector resulted in increased production, in absolute figures as well as in production volumes per hectare, and in increased productivity per labour unit or animal. Farm size increased, while the number of farms decreased. Dutch farms increasingly specialised in only one or two food products. The number of people who work in the agricultural sector decreased from 500 000 in 1950 to less than 200 000 in 2013, and the nature of employment has shifted from permanent or stable employment to part-time jobs. This resulted in a 75 percent decline in agricultural jobs over 65 years.

In 2001, the organic agricultural sector in the Netherlands was around two percent, one of the lowest in the European Union at that time ([WRR, 2014](#)).

**Box 2: Short characterisation of the Dutch agri-sector since the 1950s. Food self-sufficiency in the Utrecht Region**

When compared to the entire country, the Utrecht Region likely produces much less than 65 percent of the total food consumed in the region. This is due to the following:

- From a consumption perspective, several important primary food categories are hardly produced in the Utrecht Region (e.g. wheat of baking quality, vegetables, potatoes, fish, pork meat, poultry meat, eggs). Food production in the city region, due to agronomic conditions, mainly involves dairy production (milk and cheese, and to some extent beef) and fruit; and both sectors are largely oriented towards national and international markets;
- The Utrecht Region is one of the more urbanised areas in the Netherlands, and as a consequence, has a lower percentage of rural areas compared to the Netherlands on average.

Based on interviews and secondary data sources, it is estimated that the share of food production in the Utrecht Region covers on average less than ten percent of total consumption in the region. This share naturally varies for different types of food (see Box 3). For instance, since the region hardly produces any wheat, the share of cereal production for consumption in the Region is negligible.

It should be noted however that the Utrecht Region only covers a radius of 10–15 kilometres around the City of Utrecht. As indicated earlier, agricultural functions in the region are competing with other functions, such as leisure, nature and the built environment. This makes it less likely for farm businesses to provide substantial amounts of food to the region. Secondly, regional food market share and regional production is only based on estimates and secondary data sources. There are still important data gaps for calculating the importance of the regional food system in terms of employment, product volumes, share of regional food marketing versus non-regional food marketing, and total market value of regional food.

**Box 3:**  
Potential for regional  
food production and  
processing.

In 2013, the initiative *Lekker Utrechts*, an initiative to stimulate local and regional food production in the Utrecht region, carried out a quick-scan to assess which agricultural products could be sourced locally by large catering businesses in the Utrecht region (Note: The Utrecht region is defined by Lekker Utrechts and largely overlaps with the Utrecht Region as used in this report). The team based their analysis largely on data provided by the Central Bureau of Statistics. The main findings were that farms in the region currently produce very few different kinds of fruit and vegetables. Only for some crops (especially apples and pears), production volumes are sufficient to supply large catering services. The authors, however, also see potential for regional meat processing and distribution (based on dairy cows that are butchered for meat); this would require specific agreements between producers, processors (abattoirs) and distributors to keep track of regional meat products. The region also has a strong representation of production of dairy products (cheese) ([Bosma, Meenhuis and De Jong, 2013](#)), but most of these farms currently market their products largely outside the Utrecht Region, to other regions in the Netherlands or abroad.



Local/regional product logos. ©FAO/ www.lekkerutrechts.nl

### Food production with a specific regional orientation in the U10 Region

Notwithstanding the potential for regional production and processing, only a small part of this produce is actually marketed through regional branding, either through on-farm sales, cooperatives, wholesale or other regional food initiatives, or through conventional retail (supermarkets). The project identified 48 food producers that explicitly produce for a regional market, equivalent to 5.7 percent of the 842 registered farm businesses in the Utrecht Region (see Table 3). The 'Utrecht Region+' includes farm businesses that are located just outside the Utrecht Region that provide at least a part of their produce to the regional market.

PRIMARY FOOD PRODUCT	UTRECHT REGION	UTRECHT REGION +
Dairy	7	21
Fruit	14	21
Vegetables	21	27
Meat	4	4
Eggs	0	4
Honey	2	3
Total	48	80

**Table 3:**  
Overview of regional food producers by food type (2017)

Source: RUAF data set, 2017

Of the 21 farms in the Utrecht Region, vegetable farms form the largest category, although almost all are small-scale horticultural farms. In terms of product volumes, fruit and dairy farms produce much larger quantities.

### Importance of multifunctional agriculture

Multifunctional farms are those that provide multiple services and products linked to their agricultural production, such as agricultural welfare services (*'zorglandbouw'*), recreation, food and restaurant services, day-care for children, educational services, nature and landscape stewardship, on-farm processing and/or sale of regional or artisanal products. On national level, two-thirds of total revenues for arable farmers come from multifunctional agriculture ([Wageningen University & Research, 2015](#)). Table 4 provides an overview of the number of farms in the Utrecht Region that provide multifunctional services, by type of service. Note that farms can provide multiple multifunctional services, so double counting may occur.

TYPE OF FUNCTION/SERVICE	AMOUNT	AS PERCENTAGE OF TOTAL FARMS (842 IN 2016)
Aquaculture	1	0
Storage of objects or placement of animals	68	8
Agro-tourism	34	4
Processing of agricultural products	26	3
Sale of products on the farm	58	7
Agricultural welfare services ( <i>zorglandbouw</i> )	14	2
Agricultural natural stewardship	152	18
Children's day-care services	2	0
Farm education	33	4
Energy production, for farm consumption	58	7
Energy production, supply to third parties	16	2
Agricultural contract labour for third parties	52	6
Non-agricultural contract labour for third parties	80	10

**Table 4:**  
Multifunctional farming in the Utrecht Region: number of farms by type of multifunctional farming (2016 data)

Source: CBS, 2017

The highest percentage of farms are those that have an agreement for nature conservation (protection of pasture/grassland/meadow birds; landscape stewardship packages; botanic stewardship; geese stewardship): in the Utrecht Region, this figure reached 18 percent in 2016. As for the entire country ([Van der Meulen et al 2014](#), [Wageningen University & Research, 2015](#)), the number of multifunctional farms in the Utrecht Region is estimated to continue to grow, both in number of registered businesses and in annual turnover.

The Province of Utrecht considers that the perspective for multifunctional farming in the Utrecht Region is positive, based on increasing societal demand for green space and experiencing the ‘rural’ countryside, and for establishing a (personal) relationship with farmers and their products. Given the high levels of urbanisation in the Utrecht Region, there are many potential customers. Additional services that farms could develop further are environmental and nature management services, water management services and renewable energy production (Programme Countryside in Development).

The Province of Utrecht aims to support these farm businesses, not through direct subsidies but rather through facilitating partnerships between existing (Lekker Utregs, Willem&Drees, Landwinkels) and new businesses ([Provincie Utrecht, 2011](#)). The Province of Utrecht is currently renewing its strategy on agriculture in the province, and references support to urban agriculture and multifunctional agriculture in a ‘*startnotitie*’ ([Provincie Utrecht, 2017](#)).

### Urban agriculture in Utrecht and the Utrecht Region

The Utrecht Region counts at least 70 different urban agriculture farms or gardens (see Table 5).

Table 5: Number of urban agriculture farms and gardens in the Utrecht Region.

TYPE OF URBAN AGRICULTURE	U10	U10+	EXAMPLES
Total	70	71	
Allotment garden complexes	31	31	Food for Good, Ons Buiten, De Pioniers
Community gardens	17	17	Cremertuin, Bikkershof
Urban farms	13	13	De Moestuin, Nieuw Burenveld
Educational gardens	8	9	Griftsteede, Nieuw Rotsoord kinderboerderij
Other urban agriculture gardens/locations	1	1	Beekeeper De Gagel

Source: RUAF data set, 2017. (Note: School gardens are excluded from this list as the term school gardens in Utrecht is used in various contexts: schools may have a small garden on their own premise, or they can make use of educational gardens managed by other organisations)

In 2016, the Municipality of Utrecht prepared a [map](#) (see Figure 10) with existing and potential locations for urban agriculture activities; it presents more than 30 existing locations (mostly municipal gardens and complexes for allotment gardens) and more than 70 potential new locations.

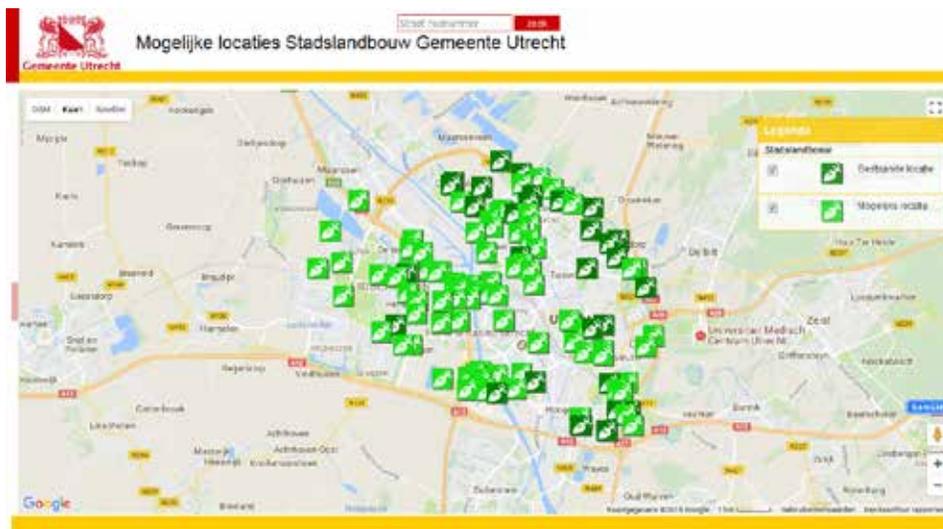


Figure 10: Urban Agriculture Map of the Municipality of Utrecht

Source: Municipality of Utrecht, 2016

A 2012 policy note by the Municipality of Utrecht *Volkstuinen in Utrecht Duurzaam en Gezond Beleidsnotitie 2012 – 2014* (allotment gardens in Utrecht: Sustainable and Healthy, Policy Note 2012–2014) already highlighted increasing demand for additional allotment gardens.

Urban agriculture activities in Utrecht and the Utrecht Region generally do not intend to produce large volumes of food for an urban population. Next to home production, the urban agriculture initiatives rather provide a range of services, such as recreation, education, community services and health and welfare services, among others ([Van der Meer and Schreurs, 2014](#)).

In the Municipality of Utrecht, there are only a handful of fruit and vegetable growing gardens that have significant income streams from the sale of produce to consumers: De Moestuin Maarschalkerweerd (also a strong income stream from welfare services); Koningshof (also income from the revenues of small plots and renting of meeting space); Tuinderij Volle Grond (with a significant income stream from welfare services); Amelishof (with a main income stream from its own shop and sale to the adjacent restaurant and caterer Veldkeuken)<sup>2</sup>. The Municipality of Zeist in collaboration with the civil society organisation *Platform Stadslandbouw Zeist* has also been active in promoting urban agriculture initiatives. The project team estimates that the total volume of food produced in these gardens amounts to (far) less than one percent of the total food consumed in the Utrecht Region.

However, all of these initiatives, together with many more food events, platforms and local food movements, provide an important contribution to local food awareness, education, experience and local food culture in the Utrecht Region.

<sup>2</sup> The Amelishof en De Volle Grond, amongst other cases, provides examples of social investment that can give insights into how the state can effectively interact with sections of society, either as best-practice cases that can be extrapolated to other contexts or as indicators of the way forward to influence policy decisions on the part of public administrations. See: <http://inno.eu/wp-content/uploads/2017/04/Netherlands-urban-farms.pdf>

## 3.2 Food processing

This section seeks to answers to the following questions:

- Where does the food processing of the food consumed in the Utrecht Region take place?
- What are the characteristics of the food processing sector in the Utrecht Region?
- What is the share of regional food processing businesses, e.g. businesses that market their products as coming from the Utrecht Region?

### **Food processing at a glance**

- 231 food processing businesses (Utrecht Region)
- 5 900 jobs (Province of Utrecht)
- Most food processing is disconnected from local food production (food inputs).
- The dairy processing sector offers the largest potential for local and regional marketing, mainly through on-farm cheese processing.

### **Food processing in the Utrecht Region**

A large number and variety of food processing businesses can be found in the Utrecht Region (see Table 6) and 86 percent of the food processing businesses have nine or fewer employees (Province Utrecht, 2016).

TYPE OF FOOD PROCESSING	AMOUNT
Poultry abattoirs	2
Abattoirs (not poultry)	6
Potato products	1
Biscuits and cookies	8
Beer	19
Bread and (fresh) pastry	116
Chocolate and sweets	11
Ice-cream	5
Pastry	1
Soft drinks, mineral water	4
Fruit and vegetable juice	2
Homogenised food supplements	2
Ready-made meals and snacks	11
Flour (not starch)	2
Other food products	10
Spices, sauces and seasoning	2
Alcoholic liquor	2
Wine from grapes	1
Dairy products (not ice-cream)	9
Cacao	1
Vegetables and fruit (not juice or ready-made meals)	2
Coffee and tea	6
Fish	1
Meat (not ready-made meals)	7
	231

**Table 6:**  
Food processing  
businesses in the  
Utrecht Region,  
by type of food  
processing.

Source: Provincie Utrecht, 2016. Note that this table excludes farm processing – for instance, farm-based cheese production. Data from Central Bureau for Statistics show that in the Utrecht Region, 26 farm businesses are involved in processing of agricultural products

In the entire Province of Utrecht, 5 900 persons are employed in the food processing industry. In terms of employment, the largest five sub-sectors are bread and pastry (2 192), alcohol (573), fish (435), 'other food products' and dairy products (357). Dairy processing and fruit processing provides employment for 357 and 46 persons respectively (2009 data, [De Bont et al, 2011](#)). These figures exclude the number of people working in Research and Development (R&D) related to food. In 2013 for example, Danone opened the research facility 'Nutricia Research' on the Utrecht Science Park. This facility, with around 400 employment positions, focuses on food and health care, and food for young children ([Utrecht University, 2013](#)).

### Regional food processing

The four largest food processors in the region include Vrumona (soft drinks), Douwe Egberts (coffee), Remia (sauces) and Intertase (herb mixes, sauces, convenience products, snacks, etcetera). All depend primarily on inputs from outside the Utrecht Region.

The project team identified 36 food processing businesses in the Utrecht Region (see Figure 11 and Table 7) that have an explicit regional food marketing strategy, even though these businesses also market nationally. At this moment, there are no specific data available about the scale and volume of regional food processors, or how much of their inputs are sourced locally or regionally.

Examples of regional food processing businesses include urban beer brewers Maximus, De Leckere and Hommeles, cookies from the Koekfabriek, pickles from Domstad Tafelzuur, De Bie food processing (vegetable processing, Nieuwegein). Many of these regional food processing initiatives seek more direct connections to the consumer, through visit tours, tasting courses or through the way they operate (for instance, by employing with people with disabilities). The largest processors with a potential local or regional focus are dairy processors, and often these are dairy farms with on-farm production of cheese and other dairy products. Dairy processing business include several cheesemakers (small-scale, e.g. Oudwijker, and larger scale, e.g. Koninklijke ERU Kaasfabriek and Grozette) and producers of dairy products such as milk powder.

Figure 11:  
Regional food-  
processing  
businesses



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Table 7:  
Number of regional  
food processors in  
the Utrecht Region,  
2017

NUMBER OF FOOD PROCESSING BUSINESSES, BY FOOD TYPE	36
Dairy (cheese, milk)	6
Fruit	6
Vegetables	2
Bread	7
Meat	0
Beer	15
Liquor	0

Source: RUAF data set, 2017 (Note this table excludes on-farm processing)

On the basis of currently available secondary data, it is however assumed that:

- most of the food consumed in the region is processed outside the Region;
- the large food processing facilities market most of their products outside the Utrecht Region;
- most food processors located in the Utrecht Region are using food products from outside the region (exceptions may be processing of dairy and fruit products).

### 3.3 Wholesale and distribution

#### **Food wholesale and distribution at a glance**

- 530 food wholesale and distribution businesses (Utrecht Region)
- 455 businesses have less than nine employees (Utrecht Region)
- Most food wholesale and distribution is disconnected from regional food production and regional food supply
- Local and regional food distribution undergoes frequent changes: need for more stable consumer demand and coordination.

#### **Wholesale and distribution in the Utrecht Region**

In the Utrecht Region, there are 530 businesses registered that are involved in the wholesale of food products and the supply of inputs for the food production sector (see Table 8). Alongside conventional wholesalers, there are purchase organisations that collectively buy food and food products for supermarket chains. Although located in the Utrecht City Region, the vast majority of these wholesale businesses are involved in wholesale and distribution at national level and are not primarily focused on distributing regional food products, nor on supplying food solely to the Utrecht Region.

**Table 8:**  
Number of  
businesses in food  
related wholesale in  
the Utrecht Region,  
2016

WHOLESALE CATEGORY	AMOUNT
Other food and stimulants products (specialised)	67
Other food resources (specialised)	6
Arable land products and fodder (general)	5
Resources for bakeries	3
Plant pesticides and fertilisers	7
Consumption potatoes	3
Drinks (non-dairy)	92
Eggs	1
Cereals	1
Fruit and vegetables	53
Hay, straw and silage	4
Coffee, tea, cacao, spices	16
Agricultural machinery, tools and tractors	25
Livestock (living)	29
Machinery for the food processing and stimulant industry	24
Mixed livestock fodder and concentrate feed	3
Other arable land products	2
Raw plant-based and/or animal oils and fats	3
Snacks	9
Sugar, chocolate and sweets	6
Fish, crustaceans, molluscs	5
Meat, meat products, game and poultry	39
Food and stimulant products (general assortment)	96
Seeds, seed plants, legumes	1
Dairy products, cooking oil and cooking fat	30
Total	530

Source: Provincie Utrecht, 2016 data, Provincie Utrecht

The data of the *Provincial Arbeids Register* also show that of the 530 registered businesses, 455 businesses have fewer than nine employees and can be categorised as small-scale. Six of the largest wholesalers employ more than 100 staff (Provincie Utrecht, 2016).

### Wholesale and distribution of regional food products

One of the larger wholesalers in the Utrecht Region that focuses on regional food is 'Willem & Drees' (W&D; see Box 4). W&D distributes to the catering sector (Sodexo), restaurants and private retail through their online ordering service. Until January 2017, W&D also distributed to 700 supermarkets in the Netherlands, but stopped providing this service due to lack of market growth (Wouda, 2017). Another initiative is 'Local2Local', a cooperative of farmers that aims to market local products in the region (see Box 5). The cooperative receives support from its founders, who have a strong track record in ICT systems and application of datasets in analysis of consumer preferences and building innovative business models. Rechtstreeks, another regional food distributor supplied Utrecht with regional food products until its management decided to close its operations in September 2016. There are also other initiatives that aim to market regional products, such as 'Groene Hart Streekproducten' and Vers 247, a company that delivers regional products to the food service sector (restaurants, catering) throughout the Netherlands. These examples confirm a national trend that the number of online shops and local food delivery schemes are rapidly increasing, with new initiatives starting up, but also closing down, regularly.

The examples provided also illustrate that regional food distribution undergoes frequent changes and cannot yet rely on a stable growing market demand. There is a need to enhance both consumer demand and business coordination.



Box 4:  
Willem & Drees  
products offered in  
supermarkets

Willem&Drees (W&D) is a grocery wholesaler specifically dedicated to short-chain delivery. W&D started in June 2009 supplying locally grown vegetables, potatoes and fruits to shops and supermarkets. W&D supplies the food service sector – catering and restaurants - and other out-of-home consumption points throughout the Netherlands with products from selected farmers located as close as possible to the point of sale. In 2015, W&D added a new distribution channel: online sale of food products combined with home delivery (Hegger, 2015). In May 2016, W&D announced the merging of Beebox – a weekly subscription service for delivery of organic food for three meals with W&D (Meijssen, 2016). In January 2017, W&D halted distribution of regional products (Wouda, 2017) and now only focuses on online sales.

**Box 5:**  
Local2Local products  
from the region



Local2Local is a cooperative of farmers and local entrepreneurs (most farmers are located in the Utrecht Region), which aims to provide local food to consumers in the region, in a convenient and competitive way, with strong social and environmental ambitions. Launched in 2013, the cooperative is supported by Amped and other businesses that are specialised in business development, logistics, distribution, marketing, finance, legal affairs and process optimisation. Clients can order their local groceries online and pick them up at several distribution hubs in the region. Currently, the size of turnover is still relatively modest, but Local2Local has the ambition to provide a substantial amount of food consumed in the region (10–20 percent) in the near future. They also have the ambition to mainstream local and regional food products, thus no longer seeing regional food only as a niche market. Using ICT and big data analysis should form the key to scaling up and reaching efficiency, by expanding distribution from pick-up points and distribution hubs, to home drop off, and supermarket channels. Local2Local already collaborates with other regional food distributors, such as *Groene Hart Streekproducten*, and is investigating the options of sharing logistics with other regional food distributors. Local2Local also works with the University of Utrecht to make local food accessible on the university's campus; students can order groceries online and pick up regional products. To get a more accurate picture of demand for local food (what kind of food, logistics, etc.), Local2Local has launched an online food consumption inventory for consumers to fill and submit. This also provides Local2Local with information on consumer demand and trends (Source: interview project team with Mark Frederiks, 1 April 2016).



## 3.4 Food marketing, catering and retail

### Food marketing, catering and retail at a glance

- Supermarkets dominate food retail and supply, on average 79 percent of all food and drinks (The Netherlands)
- Supermarkets sell less than five percent of all regional food sold in the region
- Large and growing variety of innovations in other forms of food retail (food boxes, new catering concepts)
- 57 retail points explicitly offer local and regional foods (Utrecht Region)

### Supermarkets dominate volume and market share of food supply

Supermarkets dominate food supply to people in the Netherlands (see Table 9 and 10). It is assumed that these trends are similar for the Utrecht Region. It should be noted that these figures exclude purchase of food in restaurants, convenience stores and catering ([Detailhandelinfo, 2016](#)).

Consumers also buy their food and drinks at special retail stores, municipal and farmers' markets, and from online shops and restaurant and catering businesses.

CATEGORY	PERCENTAGE MARKET SHARE SUPERMARKETS (ROUNDED)	OTHER IMPORTANT PROVIDERS
Alcoholic drinks	66	Liquor store: 23 percent
Non-alcoholic drinks	85	
Bread and wheat products	72	Bakery: 18 percent
Fruits	77	Fruit and veg shops: 9 percent
Vegetables and potatoes	89	Fruit and veg shops: 4 percent
Milk, cheese, eggs	90	
Oil and fat products	92	
Sugar, sugar products, ice-cream	76	Special retail: 6 percent
Fish and shellfish	62	Fish shops: 20 percent
Meat products	79	Butcher shops: 15 percent
Average	79	

Table 9: Retail market share of supermarkets vs. other providers, by food sub-type (2014).

Source: Panteia, based on the figures of the Central Bureau of Statistics (CBS)

**Table 10:**  
Total food-related turnover by consumption channel in euros and in percentages for the Netherlands (2011)

	IN BILLION EUROS	BY PERCENTAGE
Total	55 504	
Supermarket	26 850	48.4
Special retailer	7 661	13.8
Market and other	3 054	5.5
Convenience	5 537	10
Catering	3 427	6.2
Hotel, restaurant, café	8 975	16.2

Source: [Backus et al, 2011](#)

The domination of supermarkets is due to their large presence and close distance to the consumer. Table 11 shows that in 2015, there were 77 supermarkets in Utrecht municipality. In Utrecht, on average, the consumer distance to the nearest supermarket is 600 metres (CBS, 2016).

**Table 11:**  
Supermarkets in the Municipality of Utrecht, 2015

NAME OF SUPERMARKET CHAIN	AMOUNT	PERCENTAGE OF TOTAL
Albert Heijn	23	30
Jumbo	7	9
ALDI-Markt	5	6
Lidl	6	8
Plus	5	6
Vomar	3	4
Boni	2	3
Hoogvliet	2	3
Dirk	2	3
Ekoplaza	2	3
Other (one location each)	20	26
Total	77	

Source: Municipality of Utrecht, 2015 data

Bijman et al. expected already in 2003 that the retail market (supermarkets) will further consolidate in the coming years, as price competition requires supermarket chains to scale up through merging and takeovers ([Bijman et al, 2003](#)). At the same time, in the Netherlands, a growing local food movement is developing a number of (smaller) initiatives based on social, environmental and commercial values, including various short supply chains that focus on minimising the distance between producers, retail and consumers in the city region. This model has the potential to contribute to the development of a more sustainable and resilient city region food system due to its role of raising awareness and starting trends (in terms of a new food culture) and building on

both the presence of engaged entrepreneurs as well as consumers demanding (and are willing to pay for) locally/regionally produced food. Innovations are found in the development of new catering concepts (e.g. a restaurant or food shop using produce from the region), new product concepts (e.g. local product varieties or recipes) and new production-marketing concepts (e.g. food and meat boxes, see Box 6 below). Examples of such innovations are described below.



Box 6: Increase of (high-end) food boxes and meat boxes.

Sale of biological (farm) products on the Beekhoeve

Recent years have seen an increase in businesses that provide food boxes (or bags) to households, making use of specific sale arguments. This selling point could be local, organic (Odin, Vita-tas), a combination of different product features (Bee-Box, de Krat, Streekmolen krat, Tuinderij Volle Grond), or targeting a high-end market (HelloFresh, Marley Spoon). Many of the box schemes include recipes. Some businesses offer home drop-off (HelloFresh), others provide local pick-up points, or do both.

An interesting and relatively new addition to the existing food boxes (originally mainly fruit and vegetables, later a range of products, including dairy products, meat, bread) is the short food chain for meat. The term ‘crowdbutching’ is used to refer to this concept: an animal will be slaughtered once enough people have enlisted (through internet) to buy parts of the entire animal. Examples of brand names and organisations include: Koop een koe (‘buy a cow’), OKvlees, Poldervlees, Buitengewone Varkens, Blaarkoppen. There are also farmers that directly connect with the consumers themselves – for instance, the Beekhoeve in Kamerik (part of Utrecht Region) (Berkhout et al, 2014).

### Supermarkets and regional food

Bartels et al (2011) argue that selling regional products often puts supermarkets in a dilemma: on the one hand, regional food means that the product range varies with the seasons; on the other, supermarkets seek to respond to consumer demand for fresh fruit and vegetable from the region (Bartels et al, 2011).

Examples of supermarkets offering local food include Albert Heijn that offers local beer (De Leckere and Maximus; both 'local beers, sold nationally') through its online supermarket service. Jumbo supermarket chain, the Coop/C1000 chain, and other supermarkets offered Willem and Drees products until the end of 2016, when W&D discontinued this service. PLUS supermarket has a regional product line 'Gijs' (the region is here considered to be the entire country) and some Plus

supermarket branches specifically sell local and regional food products. Organic supermarket chain Ekoplaza (multiple shops in the region) offers occasionally local and regional food (the product range of local food varies per location and by season). Supermarket chain Spar also has its regional product line 'Spar uit de streek'. Albert Heijn organises 'spring festivities' where clients can meet the farmer.

Although data on regional food flows through supermarkets is not available, the project team estimates (also based on previous data from the regional food distributor Willem&Drees) that the total share of regional food that is made available through supermarkets is very low (less than five percent of total regional products sold in the region).

Researching other retail and catering services that may provide regional food, the project team (2016) identified 57 retail points in the Utrecht Region that explicitly offer regional food products: 24 farmshops, ten rural food stores (*plattelandswinkels*), ten specialized retail stores, five regional food (farmers) markets and eight regional food pick-up points. It remains unclear what share these regional foods have in terms of annual turnover or annual expenditures. From this perspective, we argue that local and regional food remains largely a niche product, and for access to local food, you have to look beyond the conventional food channels.

### Food cooperatives

Rio de Bio, an independent organic food cooperative located in Utrecht, offers a range of local and regional products. Organic web shop De Korenmaat offers a range of local products and is transparent about how food prices are calculated, e.g. what percentage (and amount of the food bill) is going to the supplier and what amount is retained by De Korenmaat. De Korenmaat has a strong ethical vision about agriculture, society and economy. VOKO Utrecht also is a food cooperative with around 50–75 members that aims to make local and regional food available to Utrecht consumers for an affordable (for the consumer) and fair (for the farmer) price.

### Other food retailers

The increasing market share of supermarkets is coupled to the decline of small and special food retail. For example, the number of special food retailers, such as bakeries and butchers, has decreased over the past years (WRR, 2014). These national trends also largely apply to the Utrecht Region.

Nonetheless, the Dutch Bank ABN AMRO recently published a [report](#) that shows that specialised retail may be slightly growing again, and that there are opportunities for specialised retail to provide high-quality niche products. A direct link with producers and a clear origin of food products helps to establish a perception of quality ([Morren, 2016](#), [Foodlog, 2016](#)).

In terms of regional retail, the [Landwinkel](#) chain is a cooperative of farmers that sell artisanal farm food products. The Landwinkel aims to improve the well-being of rural areas by involving citizens in food production and helps to improve cooperation between farmers.

### Organic food retail

Turnover of organic food products has shown an annual increase, across almost all food categories. An exception is organic meat. Between 2014 and 2015, the turnover of organic products in the Netherlands grew more than ten percent from EUR 1.04 billion to EUR 1.14 billion ([Bionext, 2015](#)).

### Non-Dutch ethnic food retail

The project team estimated that in 2015 around 114 food retail businesses with a non-Dutch ethnic background could be found in the Utrecht Region – 27 percent of the total 427 registered food retail businesses. On a national level, there is some (outdated) data available on ‘ethnic retail’, or foreign food retail. It is unclear how these retailers are defined specifically and whether all foreign food retailers, such as the Moroccan, Turkish and Balkan food stores and markets are registered as foreign food retailers. The percentage of foreign food retail in 2015, based on the data of ‘*Hoofdbedrijfschap Detailhandel*’ was four percent (439 foreign food retail shops out of total 10 846 food retail shops). For the Utrecht Region there is no specific data available, but these data may be acquired through the owner of the retail data (Locatus) (Source: [Detailhandel.info](#), data from 2015).

Not surprisingly, in the City of Utrecht, non-Dutch-ethnic retail is very much visible in neighbourhoods with a larger number of inhabitants of non-Dutch backgrounds: Lombok, Kanaleneiland, Utrecht Overvecht and other neighbourhoods. It is unclear how important ethnic retail is in terms of total food provisioning for the city or for specific groups of people.

### Food markets

Most open food markets do not explicitly offer food products from the Utrecht Region, with exception of the *streekmarkt* (monthly) and regional food markets (less frequently). Utrecht’s organic farmers’ market offers products mostly from outside the Utrecht Region (project team’s observations). An interesting newcomer in the food markets is [Markt om de hoek](#) (Om de Hoek means ‘around the corner’), a market with a strong local and regional focus, for neighbourhood residents (See Figure 12). For now, the organisers aim to organize four markets per year.

Figure 12.:  
Markt om de hoek  
market organised  
June 2017



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### Catering business

The catering sector can be divided in contract catering (longer-term catering services for businesses, institutions and schools) and event or party catering (specifically related to an event or party). The contract and event catering may partially use regional or local food products. An example is the contract catering multinational Sodexo, who has an agreement with Willem & Drees to provide them with local apples and pears. Examples of smaller caterers that explicitly work with local or regional products are [Resto van Harte](#), the [Colour Kitchen](#) and the [Veldkeuken](#). Additionally, there are many (mostly smaller) caterers, some of whom work explicitly with regional products. In Utrecht Region, the project team counted 19 caterers who work with regional products.

### Hotel, restaurant and café sector

Several initiatives and lobby organisations are aiming to increase the quality and quantity of the restaurant business in Utrecht ([Gemeente Utrecht, 2012](#)). The municipality expects the following developments for the restaurant business in the City of Utrecht: increased presence of neighbourhood restaurants; increased demand for convenience food and take-away; increased opportunities for offering high-end and special food concepts (chef's table, dining at home, food truck events) and at historical locations (the old water tower, an old factory), or by focussing on special ingredients (local, organic, exotic, etc.) ([Gemeente Utrecht, 2012](#)).

Restaurants can use regional food sourcing as a way to distinguish themselves from other restaurants. In 2016, the project team counted 23 restaurants in the Utrecht Region that work explicitly with regional products and use this in their marketing. There was no available data on economic value, on percentage of local and regional products of total food products used, or on the type of food products used.

Several restaurants are known to source a part of their food products from the region – a few examples include Karel V, Vaartsche Rijn, Colour Kitchen, Gy and Veldkeuken. A few restaurants grow food on their own premises, such as the [Moestuin Maarschalkerweerd](#), or keep their own goats, such as the [Geertjeshoeve](#) in Haarzuilens.

*Lekker Utrechts*, Fairtrade Utrecht, *Stoere Vrouwen*, *Het Faire Noorden* launched an initiative *Flairtje*. This initiative aims to increase the consumption of fairtrade and regional food products. In Utrecht, there are a small number of participating restaurants.

### Direct farm sales

In the Province of Utrecht, 147 farms were registered in 2013 as having income from a farm shop ([Van der Meulen et al, 2014](#)). The same report observes that:

*“Although the segment of farm sales to web shops and third parties has been excluded in the definition of direct farm sales, there is a strong increase visible in the segment of regional food boxes. This is explained by an increasing demand from consumers for higher quality products, and where the consumer knows exactly the origin of the product. It is expected that the turnover of (web) shops and other intermediaries that sell farm products will continue to increase in the coming years.”* (Source: [Van der Meulen et al, 2014](#), p.11)

### Community supported agriculture

In the Utrecht Region, the project team counted five community supported agriculture (CSA) businesses/farms in 2016 (De Volle Grond, De Groene Steen, De Groentenakker, Tuinderij de Groentenboer, Kansrijk Biologische Zelfoogsttuin). A CSA is a network or association of individuals who have pledged to support one or more local farms, and where consumers and growers share the risks and benefits involved in food production.

### Food banks

A food bank is a social initiative that aims to (temporarily) provide food at no cost to people who are unable to buy sufficient food for themselves and their families. Food banks rely on donations of products that have (almost) reached their maximum shelf life, but are still suitable for consumption, both from a nutritional perspective as well as a food safety perspective. In the Utrecht Region, there are nine food banks which are currently undergoing reorganisation. In total there are 26 distribution points for food banks, supplying an estimated 1 100 households (based on 2015 figures) (Data set RUAf, 2017).

The Knowledge Centre for Social Innovation, part of the High School of Utrecht, investigated the food banks and their clients in the Municipality of Utrecht, and published the results in the report [‘Foodbanks in Utrecht: a profile of clients’](#). The study provides the following information: 76 percent of respondents have health issues, both physical as well as psychological (depression, anxiety). Around 92 percent of the clients – also referred to as ‘participants’ – indicate that they have debts ranging from EUR 1 000 to EUR 100 000, and 43 percent of participants are in a debt-help programme. In 2013, 67 percent of the respondents have a Dutch background; 16 percent have a non-western background; and 17 percent have a different background – this groups also includes illegal immigrants, political refugees and asylum seekers who have no permanent resident status ([Kromhout and Van Doorn, 2013](#)).

## 3.5 Food consumption

### Food consumption at a glance

- 18 percent of consumers often or always buy regional products (City of Utrecht)
- Consumer demand for sustainable food products (organic, animal welfare) is increasing, but may compete with local/regional food labels
- Online applications are likely to increase accessibility of local foods
- Increasing concerns with regards to diet-related health issues: more than 38 percent of the population suffers from overweight and more than 33 percent from diabetes I and II
- The need for increased consumption of fresh fruits and vegetables may offer opportunities for local food branding.

### What do people in the Netherlands eat?

The [Dutch National Food Survey 2007–2010](#) provides a detailed overview, on a national level, of the food consumption of people from different age groups, by sex, by food category, by energy composition, and the intake of macro- and micro-nutrients. In '[The Diet of the Dutch](#)', the RIVM publishes the results of the first two years of the Dutch National Food Consumption Survey 2012–2016. The study notes in the summary:

*“During the last five years, the consumption of potatoes, fats and oils, alcoholic beverages, dairy products, cakes and biscuits and meat (products) decreased. Use of non-alcoholic drinks and condiments and sauces rose. Consumption of vegetables and cereals and bread remained stable. Children and adolescents consumed 20 percent more fruit than about five years ago. These are initial findings halfway through the data collection of the food consumption survey 2012–2016 for 1 to 79 year-olds”* ([Van Rossum et al, 2016](#)).

The Van Rossum study also notes that:

*“Cereal products (especially bread) and meat are popular: they are consumed almost daily. Fish and legumes are consumed less (one day a week or less). The composition of the food package differs little between the groups. Exception is that children consume relatively more milk and fruit than adults and they drink less beverages”* ([Van Rossum et al, 2016](#)).

It is assumed that these national trends are also largely applicable to the Utrecht Region. Data on food consumption in the Municipality of Utrecht are available on the [Public Health Monitor website](#). Most recent data can be found [here](#). Additional research is needed to get data on differences in consumption between urban and rural areas, and among different consumer groups. Based on these national data, it is possible to provide a theoretical indication of how much food is consumed in the region (see Table 12).

FOOD PRODUCT	CONSUMPTION IN GRAM/ DAY	THEORETICAL CONSUMPTION OF INHABITANTS IN THE UTRECHT REGION IN TONNES PER YEAR*
Potatoes	73	19 290
Vegetables	127	33 560
Legumes	4	1 060
Fruits, nuts and olives	122	32 240
Dairy products	355	93 800
Cereal (products)	192	50 730
Meat (products)	101	26 690
Fish and shellfish	15	3 970
Egg (products)	12	3 180
Fats and oils	22	5 820
Sugar and candy	38	10 040
Cakes and sweet biscuits	39	10 310
Non-alcoholic beverages	1 725	455 750
Alcoholic beverages	152	40 160
Condiments and sauces	37	9 780
Stocks	24	6 350
Miscellaneous	4	1 060
Savoury snacks	20	5 290
	3 062	809 080

Table 12: Average consumption per capita per food group in gram/day, and theoretical food consumption in the Utrecht Region in tonnes per year

\*Based on CBS population figures of Utrecht Region in 2014: 723.839

### Consumption of sustainable food products

Logatcheva and Van den Puttelaar report in the '[Monitor Sustainable Food Products](#)' that consumers increasingly buy food and food products with a sustainability label, such as organic or FairTrade. The total market share of sustainable food products increased from seven percent in 2014 to eight percent in 2015. Compared to 2014, consumers buy 12 percent more sustainable food products. The largest sustainable food product types are '*Biologisch*' (Organic agriculture) (EUR 1 089 million, a ten percent increase compared to 2014); UTZ certified (EUR 801 million, a 12 percent increase compared to 2014); and '*Beter Leven*' (EUR 563 million, a 24 percent increase compared to 2014). In total, consumers spent almost EUR 3 billion on sustainable food products ([Logatcheva and Van den Puttelaar, 2016](#)). These sustainable food labels are likely to compete with local/regional food offers.

### Regional food consumption

The Municipality of Utrecht collected information on food consumption behaviour as part of their Public Health Monitor in 2016. The questionnaire specifically focused on “conscious decisions” to buy specific food products such as: the self-perceived frequency of buying organic food products (meat, fruit or vegetables, other products), seasonal vegetables and seasonal fruit, and regional food products. The 2016 data indicate that:

- 32 percent of the population always/often buys organic products;
- 65 percent of the population always/often buys seasonal fruits and vegetables;
- 18 percent of the population always/often buys regional food products.

(Source: Municipality of Utrecht, Department of Public Health, 2017. The data are also disaggregated by sex, age, background, educational level and household composition).

### What are food consumption related health concerns?

Although in general, food is available and accessible in large quantities and for affordable prices to all Dutch consumers, there are increasing concerns around health issues related to food consumption. The Dutch National Food Survey 2007–2010, carried out by the National Institute for Public Health and the Environment (RIVM), provides a detailed analysis of the state of food and nutrition related concerns. The document’s abstract provides the following conclusions:

*“Dutch people still consume insufficient fruit, vegetables, fish and fibre. Improvement of the type of fat in the diet by the reduction of trans fatty acids in foods is a favourable development. However, the proportion of saturated fatty acids in the diet is still high and overweight is common.”*

The latter is confirmed by the website of Public Health and Public Health Care:

*“Also, the Dutch eat too much saturated fats and salt. Five percent of the population eats too much saturated fat. The Dutch eat on average 8–10 grams of salt per day, which is more than the recommended amount of 6 grams. Important sources of salt include bread (26 percent), meat products (15 percent) and cheese (ten percent).”*

A healthy dietary pattern is important to prevent obesity and chronic diseases. The survey provides insights into food consumption, which can be used to stimulate healthier dietary patterns. This can be achieved by changes in both food supply (the food environment) and consumer behaviour. It should be noted that, while there is a strong link between consumption patterns and the likelihood of being (severely) overweight, or the likelihood of being diagnosed as a Diabetes type II patient, there are many other factors that play a role, such as income levels, socio-economic characteristics (see Box 7), well-being, levels of physical exercise and stress, and direct causal relationships should be very carefully looked at.

**Box 7:**  
Food consumption  
patterns are  
culturally specific

The *Rijksinstituut voor Volksgezondheid en Milieu* (RIVM) studied the consumption patterns of Moroccan, Turkish, Surinam and Dutch groups in Amsterdam, and published the findings in the report “*Voeding van Marokkaanse, Turkse, Surinaamse en autochtone Nederlanders in Amsterdam*”. Main findings include: “*Dietary habits differ between the population groups. People of Surinamese, Turkish and Moroccan origin take religious beliefs into account in their overall diet, as, for example, limiting use of alcoholic drinks. Their diets also include traditional foods such as specific Surinamese vegetables like bitawiri and yardlong beans, ayran (Turkish yoghurt drink) and Turkish or Moroccan bread. In addition, the diet of the Surinamese population is more often vegetarian without fish or vegan.*”

Being overweight and obesity are more prevalent (60–70 percent) among non-western population groups than among the native Dutch population in Amsterdam (35 percent). Also, the percentage of people with sufficient physical exercise is lower (66–40 percent) than among the native Dutch (75 percent). This study confirms previous results of the Public Health Service of Amsterdam (GGD Amsterdam). (RIVM, 2015).

### Overweight and severe overweight

Table 13 provides an overview of the percentage of the population in the Utrecht Region that is considered to be overweight and severely overweight.

	PERCENTAGE OF POPULATION WHO ARE OVERWEIGHT*	PERCENTAGE OF POPULATION WHO ARE SEVERELY OVERWEIGHT**
Bunnik	41,3	10,3
De Bilt	40,2	11
Houten	43,2	10,8
IJsselstein	52,2	13,9
Nieuwegein	53	16,9
Stichtse Vecht	49,6	14,3
Utrecht	36,5	9,9
Vianen	54,1	16,6
Woerden	46,2	12
Zeist	45,6	13
Average for the Netherlands	48,9	13,8

Table 13: Overweight in the Utrecht Region, by municipality, 2016.

Source: GGD, RIVM, CBS. \*CBS defines ‘overweight’ as a person of 20 years and older who has a Body Mass Index (BMI) between 25 and 30 kg/m<sup>2</sup>. \*\*CBS defines ‘severe overweight’ as a person of 20 years and older who has a Body Mass Index (BMI) of 30 kg/m<sup>2</sup> or more.

Note: The municipality of Utrecht has also published detailed data on overweight and severe overweight distinguishing for criteria such as age, ethnic background, level of education, household composition and neighbourhood” (Municipality of Utrecht, 2016) More recent (2016) data are available at: [www.volksgezondheidsmonitor.nl/upload/open\\_data/581\\_GP\\_2016\\_lichaamsgewicht\\_19-64.pdf](http://www.volksgezondheidsmonitor.nl/upload/open_data/581_GP_2016_lichaamsgewicht_19-64.pdf) and [statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=83674ned&D1=0-3,9,12,16,19&D2=a&D3=0&D4=0,5-16,32,35-36,136-137,142,166,201,206,221,229,342,406&D5=I&VVW=T](http://statline.cbs.nl/Statweb/publication/?DM=SLNL&PA=83674ned&D1=0-3,9,12,16,19&D2=a&D3=0&D4=0,5-16,32,35-36,136-137,142,166,201,206,221,229,342,406&D5=I&VVW=T)

To put these figures into perspectives: the Municipality of Utrecht has the lowest percentage of people who are overweight in the Netherlands (RIVM 2015/CBS, 2013). Overweight (including severe overweight) among children in the Municipality of Utrecht is also going down in all age groups (Aangeenbrug et al, 2014). Table 14 provides an overview of the total number of people who are diagnosed with Diabetes type I and II in the different municipalities in the Utrecht Region. The need to enhance increased consumption of fresh fruits and vegetables may offer opportunities for local food branding.

**Table 14:**  
Diabetes type I and II, by municipality in Utrecht Region, 2016

MUNICIPALITY	DIABETES TYPE I	DIABETES TYPE II	DIABETES TOTAL	DIABETES TYPE I PER 1000 PEOPLE	DIABETES TYPE II PER 1000 PEOPLE	TOTAL PER 1000 PEOPLE
Bunnik	179	362	541	12.4	25.1	37.5
De Bilt	489	1 128	1 617	11.6	26.8	38.4
Houten	562	1 017	1 579	11.7	21.2	32.9
IJsselstein	526	1 007	1 533	15.3	29.3	44.6
Nieuwegein	1 085	1 912	2 997	17.8	31.4	49.2
Stichtse Vecht	955	1 776	2 731	15.1	28.2	43.3
Utrecht	4 080	7 595	11 675	13.1	24.4	37.5
Vianen	345	570	915	17.5	29	46.5
Woerden	550	1 226	1 776	11.1	25.4	36.5
Zeist	842	1 722	2 564	13.8	28.3	42.1
Netherlands	250 585	494 521	745 106	15	29.7	44.7

Source: Volksgezondheidszorg.info, 2016. Data is based on number of persons that use medicine to treat diabetes.

### Access to local and regional food

As outlined in the section on food retail, most supermarkets do not often offer (large amounts of) local or regional food products, or at least food products that are marketed as such. Specialised shops, such as bakeries, fishmongers, butchers, fruit and vegetables shops, and higher-end restaurants, or local food markets may be more inclined to sell local or regional products. From this perspective, it is argued that local and regional food largely remain a niche product, and for access to local food, consumers have to look beyond the conventional food channels.

Several ongoing developments are expected to help increase accessibility of regional food products. The expansion of the internet and increased options of using smartphone applications to directly buy food from the farmer is likely to increase the market share of online sales. The first online supermarket (Picnic, see Figure 13) has already started operations in the Utrecht Region and other cities in the province (Amersfoort, Veenendaal). Regional food initiatives also apply online ordering services, sometimes in combination with (free) home delivery. Local food providers understand that, in order to stay in business, they have to offer maximum convenience. Although there is competition between large-scale home delivery services of food boxes and smaller-scale regional food boxes, the rise of food home delivery initiatives (such as Hello Fresh) has also resulted in a significant drop

of the logistical costs for home delivery of (cooled) food products, which also serve smaller-scale regional distribution channels (source: conversation Mark Frederiks, Amped/Local2Local).



Figure 13:  
Free home delivery,  
Picnic online  
supermarket

©FAO/www.picnic.nl

In terms of affordability, there are no sufficient data available on price differences between non-local and local/regional food.

## 3.6 Food waste

### Food waste at a glance

- 89–210 kg of food waste per capita generated along the food chain (Netherlands, 2011 data)
- The Utrecht Region generates 64 000 to 152 000 tonnes of food waste per year (based on 2011 data)
- With overall increase in food waste (2009–2011), the Netherlands will not meet national target to reduce food waste by 20 per cent in 2015.

### Food waste on the agenda

In the recent years, food waste received a lot of attention in international sustainability agendas, also in the Netherlands. The Dutch national government has formulated targets to reduce food waste (by 20 percent between 2009 and 2015).

Governmental institutions and civil society organisations have launched campaigns ([Kliekipedia](#), [Hoezo50kg?](#), [Doggybag](#)) and festivals ([damn food waste](#)) against food waste. Research institutes (Wageningen University among others) are studying and [monitoring food waste](#) developments, publishing reports, maintaining a [food waste dossier](#) and [developing methodologies](#) to improve the reliability and accuracy of food waste data. A consortium of international organisations recently published a [protocol](#) to measure food loss and waste. Some retailers, such as supermarkets, and the food service industry (restaurants, catering services) have given prevention of food waste more explicit attention. Some have even given it a central part of their social or business philosophy ([Wastewatchers](#), [Instock](#), [‘A way for waste’](#), [Souprise](#), [De Container](#), [de Verspillingsfabriek](#), [Kromkommer](#)) – promoting consumption of “ugly” foods discarded by conventional retail standards (see Figure 14)

Figure 14:  
Kromkommer soup  
and cooking with  
food left-overs



©FAO/[www.kromkommer.com/producten](http://www.kromkommer.com/producten); [www.facebook.com/decontainerutrecht/photos/rpp.361551907357030/388006008044953/?type=3&theater](https://www.facebook.com/decontainerutrecht/photos/rpp.361551907357030/388006008044953/?type=3&theater)

In Utrecht, food waste has also received considerable attention. The municipality describes in its [Health policy 2015–2018](#) that the Department of Health aims to actively support food waste prevention initiatives. In this context, the municipality gave an assignment to the University of Utrecht to investigate food waste in the City of Utrecht, with a focus on food waste in hospitals, the catering sector (corporate canteens, event catering), restaurant sector and consumers ([Bouwman et al, 2015](#)).

### Food waste generation per capita in the Netherlands

Soethoudt and Timmermans conclude in the food waste monitor that, in 2009, the total annual food waste generation in the Netherlands for the entire food chain reached 1.4–2.5 million tonnes, equivalent to 83–151 kilograms per capita. In 2011, the annual amount of food waste generated had increased to 89–210 kilograms per year. The authors based their research on data from waste processing facilities (composting, digestion, incineration, waste disposal) ([Soethoudt and Timmermans, 2013](#)).

It is important to note that these are estimated averages; the figures are rather diverse for different food types. For instance, it is estimated that 45 percent of all fruit and vegetables are wasted (20 percent at primary production, 12 percent at consumer level); while for bread products it is estimated that 35 percent is wasted (five percent during the production phase, and more than 20 percent during consumption phase) ([Berkhout et al, 2014](#)).

Data and trends are assumed to be quite similar for the Utrecht Region when compared to the entire country. If the total annual food waste generation of 89–210 kilogram per person (2011 data) is multiplied by the population of the Utrecht Region (723 839 in 2014), the region would generate between 64 000 to 152 000 tonnes of food waste per year.

### Food waste generation at the retail stage

Schripsema et al. (2015) studied food waste generation at Dutch supermarkets and explored the options for using food waste for value-adding activities. The researchers collected data from 165 Dutch supermarkets. Supermarkets generally do not keep records of volumes of food waste (measured in kilograms), but do generally keep a record of missed turnover, through spoilage, discounting of food and food products, and theft/shoplifting. The researchers estimated that supermarkets lose an estimated 3.6 percent of turnover, as compared to when the food or food products would have been sold for their original selling price. The researchers also provide an overview of losses per food category: 9.3 percent of total butchery products; 5.6 percent of potatoes, fruit and vegetables; 4.7 percent of meat products (slices, etc.) and cheese; 5.8 percent of bakery products (bread, cakes, etc.); 2.1 percent of dairy products; and 0.2 percent of pantry food products.

### Food waste generation at the consumption stage: households

While no specific data is available on food waste generation by households in the City of Utrecht, it is possible to provide some context. According to the Afval Verwerking Utrecht (AVU), organic waste, which includes kitchen waste and garden waste, makes up the largest fraction (35 percent in 2014) of household waste. This organic waste fraction has grown from 30 percent to 35 percent since 2005 ([Eureco, 2015](#)).

The University of Utrecht investigated, through conducting open interviews with key stakeholders, what role the Municipality of Utrecht could play in the reduction of food waste in the municipality, in order to create a more circular economy ([Bouwman et al, 2015](#)). A [project 100-100-100](#) recently started in Utrecht: 100 households will reduce 100 percent of their organic waste in 100 days.

### Food waste generated at hospitals

According to the same research of the University of Utrecht (2015) in the hospital sector, the *Universiteit Medisch Centrum* (UMC) generated 52 percent of food waste, while the *Diakonessenhuis* generated three percent of food waste (figures of UMC). The UMC was able to reduce the amount of food waste by 18 percent to 34 percent over the past years. The variation can be largely explained by internal operational processes; and most importantly the time between taking up patients' order and serving the order out to patients ([Bouwman et al, 2015](#); [De Jong, 2013](#)).

### Food waste processing

In the Municipality of Utrecht, around 27 percent of total organic waste generated by households is collected through separate organic waste collection ([Bouwman et al, 2015](#)). This percentage could be higher if more inhabitants had space for an organic waste container or bin, in the kitchen and garden.

The Municipality of Utrecht's goal was to increase source-separated organic waste collection from 27 percent to 35 percent in 2014. The *Afval Verwijdering Utrecht* (AVU) processes the organic waste that is collected separately. The AVU is working with municipalities in the Province of Utrecht, and is responsible for transfer, transport and processing of organic waste. Up to 2009, the organic waste of the Municipality of Utrecht was composted; after 2009, organic waste is first digested (natural gas) and the digestate is subsequently composted. The AVU subcontracted the *Veluwe Afval Recycling* (VAR) for the organic waste digestion and composting ([Bouwman et al, 2015](#)).

# SUSTAINABILITY DIMENSIONS OF THE UTRECHT CITY REGION FOOD SYSTEM

Based on stakeholder discussions, various sustainability dimensions of the City Region Food System approach in the Utrecht Region were discussed:

- Social sustainability and equity
- Economic sustainability
- Urban–rural integration
- Environmental sustainability
- Food governance
- Vulnerability and resilience.

Results are included in Annex 1. The annex also provides the most relevant indicators for each of the sustainability dimensions and a baseline value.

## 4.1 Social sustainability and equity: food and health, access to regional foods, social relations and consumer knowledge

Social sustainability is considered to be medium. Safe and nutritious food is generally accessible to all inhabitants of the Utrecht Region. More vulnerable groups can also apply for food bank support. Given high levels of obesity and diabetes among the population, diet-related health concerns receive high attention. The Utrecht Municipality has a strong focus on public health and on the relation with food consumption patterns and meeting food behaviour norms. It is specifically concerned with social differences among different groups in society.

Looking at environmental sustainability, Dutch diets in general have a relatively high animal protein content and are thus less environmentally sustainable compared to diets based on larger amounts of non-animal products.

Regional food in the Utrecht Region can be considered as a niche product. The project team estimates that the total volume of regional food products that are explicitly labelled as regional food products (such as *Lekker Utrechts*) have a market share of less than one percent, although specific data on volumes produced and consumed in the region are not available.

Multifunctional agriculture, urban agriculture businesses and community gardens are strongly represented in the Utrecht Province, when compared to other provinces in the Netherlands. Consumer–producer relations are not just about the food product – educational, recreational and environmental services, energy production, health care and welfare services play an important role.

Different educational food programmes, school gardens and school programmes are implemented in the Utrecht Region. Data is available on the percentage of people that meet certain food behaviour norms (eating sufficient fruit and vegetables, having breakfast at least five times per week and others), but data on degree of food knowledge, the amount of time spent in the kitchen, the number of meals that were cooked from scratch etc. are not available.

## 4.2 Economic sustainability: retaining the local food dollar, fair and decent jobs, producer access to city region markets

Economic sustainability is currently considered to be low. The Utrecht city region food system is at present highly dynamic. Producer, processor, retail, wholesale and catering initiatives that work with regional food products come up, but also die down. The past years may have seen a slight increase in the volume and financial value of the total turnover of regional food products that are consumed in the region, although this research has not found any hard data that support this assumption. Food distribution, through internet applications and competition in logistics, has increased its cost-efficiency, and regional food businesses can, to some extent, benefit from this development.

Several barriers prevent stronger growth of the regional food system: increasing pressures on agricultural land; high agricultural land prices that prevent young farmers from starting; the aging farming population; and still limited (although growing) consumer demand.

Producers in the city region have access to a wide range of market options: farm-sale; community supported agriculture/box schemes; local retail; restaurants or catering; regional food cooperatives (such as Local2Local, *Groenehart Streekproducten*); selling to a wholesaler such as Willem&Drees; and farmers' markets.

However, the regional food economy also competes with other marketing channels, such as organic and other sustainability labels and certification schemes. Supermarkets dominate food retail in the region, and there is no proof that supermarkets have very successfully partnered with regional food producers (for example, Willem&Drees stopped selling regional food to supermarkets in 2016).

Current rural support programmes, do not (yet) focus on fair jobs or improving occupational conditions, but rather on improving entrepreneurial skills and improving market conditions to compete at the international market.

### 4.3 Urban–rural integration: optimised local food production capacity, circular economy and efficient supply chains

Levels of urban–rural integration are currently low. There is a gap in the production of regional vegetables, meat and eggs. Fruit and dairy production is more locally present and, especially the latter, provides opportunities for providing a regional market. Since there are few large-scale vegetable producers in the region, regional food distributors need to source their vegetables from beyond the Utrecht Region.

There seems to be currently very little connection between the (regional) food system and a more circular economy. Composting and energy production services only take place to a limited extent. Potential for increasing local flows seem limited in the short term, as economy of scale and legislative barriers prevent this. Depending on the outcomes of ongoing policy discussions on the circular economy this may change in the mid- or longer-term future.

In the Utrecht Region, because of its relative small geographical area and high-quality infrastructure, agricultural supply chains have high levels of efficiency.

### 4.4 Environmental sustainability: agro-ecology, natural resource protection, greenhouse gas emissions and food waste management

The CRFS project did not collect and analyse sufficient data in this area to make any substantial assessment on the level of environmental sustainability.

The number of farms with an organic agriculture certificate in the Province of Utrecht has been quite stable (just below 100) over the past years, although the percentage has increased slightly in the period 2011–2016 (from three percent to four percent). This same increase can be found for the surface area of farmland labelled as organic agriculture. It can, however, be questioned to what extent this increase has been the result of pro-active policy, or is rather due to a larger number of conventional farms that stopped producing.

The reduction of greenhouse gas emissions is important for the City of Utrecht. However, the focus is rather on transport emissions and on the use of non-fossil fuels. There are currently no data on food system emissions. Citizen surveys do try to get information on citizen behaviour to save energy and improve the environment. Potential answers include separation of waste, buying Fair Trade, organic or regional food products, buying or growing products from urban agriculture and consuming no or less meat.

Food waste per capita production is quite high in the Utrecht Region. There are several initiatives and businesses that work to reduce food waste, but they require upscaling. Measuring impacts of the initiatives was beyond the scope of this project.

## 4.5 Food governance: policy integration and participatory governance structures

Food governance is considered medium to high. The Municipality of Utrecht is a key stakeholder when it comes to food governance in the Utrecht Region. It has a clear vision on healthy and sustainable food systems and food behaviour as part of its Public Health policy. The City of Utrecht also participates in the [Dutch City Deal: Food on the Urban Agenda](#), together with another 11 Dutch cities and Provincial and National governments. Through its 'team food' that is part of the Department of Public Health, Utrecht participates in several international food projects and manifests. The Municipality of Utrecht aims to support local and regional food as part of a broader "Healthy Living" strategy and presented a Food Award in 2016 (see Figure 15). The Municipality is about to launch a multi-year programme where food and health have a central role. This has, however, not (yet) led to the municipality developing stand-alone or overarching food system policies and strategies.

Figure 15:  
Food awards



The Municipality of Utrecht, and specifically the team food, is actively looking to establish cross-jurisdictional relations on the theme of food, through the U10 network. Within the municipal structure, the team is aiming for cross-sectoral cooperation. The Municipality, through participation in meetings, contributes to an informal Regional Food Network (a network that was informally initiated by a group of people to connect people that work on regional food and food-related themes). The Municipality promotes a process of co-creation in which it will facilitate and stimulate, but not take the lead. That role should be taken by other (interested) actors in society.

## 4.6 Vulnerability and resilience: resilience to shocks, protecting the agricultural resource base and integrating food in urban policies

The vulnerability of the Utrecht Region food system is currently considered to be quite high. Considerations about the vulnerability and resilience of the Utrecht Region Food System are not (yet) part of the agenda. Specific aspects of vulnerability do feature on the (urban) agenda in the Netherlands: the vulnerability of specific branches of agriculture; the potential effects of intensive livestock farms on human health; consumption and being overweight; and loss of biodiversity. In 2013, the Dutch government called for an analysis on the vulnerability of the Dutch food system to external threats (see Box 8). It is not clear if and to what extent this was included in further policy and programming.

The *Landbouw Economic Institute* (Agricultural Economics Institute-LEI) carried out a study on the self-sufficiency of the Dutch agricultural system in the event of an international catastrophe, such as a climate event (severe drought or rain) or human event (war, epidemics). The LEI published the findings of the study in 2013 in the report 'Food supply in the Netherlands under exceptional crisis conditions' (Terluin et al, 2013). The main conclusions the authors draw are that, in the case of a catastrophic event resulting in a situation where import and export of agricultural products are affected, the Dutch agricultural system will be able to adequately (sufficient variety, calories) feed 17 million people (roughly the amount of people in the Netherlands in 2016). This would, however, require an important change in current consumption patterns. For instance, this scenario would require consumers to eat more potatoes, less bread and wheat products, more chicken and eggs, less pork. In this scenario, it is no longer possible to import animal fodder or export agricultural products (Terluin et al, 2013).

**Box 8: Resilience and vulnerability of the Dutch food system**

The agricultural resource base in the Utrecht Region is declining and under threat from urban growth. The number of farms is decreasing. Agricultural land prices are increasing and threaten economic farm sustainability. There is no specific regional policy to protect the agricultural resource base (except for the protections of some historical sites and garden landscapes such as Amelisweerd) and to reduce dependency on more distant food supply sources. Food consumption is largely de-linked from food production in the region.

The Municipality of Utrecht has a strong focus on healthy urban living. The city is working on including food in the health advising system for urban planning, with a focus on a healthy and sustainable “food environment”. Regional urban planning does not (yet) have a clear consideration for the food system. Non-food services provided by agriculture become more important: recreation, education, environmental services and energy services.

# STRENGTHS AND WEAKNESSES OF, THREATS TO AND OPPORTUNITIES FOR THE UTRECHT CITY REGION FOOD SYSTEM

## 5.1 Access to healthy and nutritious food

A sustainable and resilient City Region Food System (CRFS) aims to increase access to healthy and nutritious food where rural and urban residents have access to sufficient, nutritious, safe, healthy and affordable food, while supporting a local food culture.

**Strengths:** Sufficient, safe, nutritious and affordable food is abundantly available for all urban and rural residents. Over 90 percent of this food is coming from outside the Utrecht city region.

**Weaknesses:** When comparing indicators such as overweight and severe overweight to other regions, Utrecht Region is one of the healthiest regions in Europe. At the same time, some neighbourhoods in Utrecht belong to the unhealthiest areas in the Netherlands and the link between food consumption in the region and local food culture remains relatively small. Obesity and diabetes incidence is higher than 30 percent, either due to unhealthy lifestyle, social exclusion or poverty, lack of physical exercise or unhealthy consumption patterns.

Regional and local food remains largely a product for higher income or higher educated groups. The challenge remains to reach out to all social groups. It is not clear whether there is a direct relationship between increased food awareness, regional food consumption and population health and well-being. Consumption of food with sustainable certificates has strongly increased in the last years, but it is not certain to what extent regional food will be able to profit from this increase, if products are not organic.

**Opportunities:** Regional food marketing initiatives have steadily worked on increase of quality of services (higher convenience), and accessibility through internet applications (examples include Local2Local and Willem&Drees). Use of big data and the “pooling” and sharing of data on sales, logistics and consumer profiles may offer chances to target specific individuals and communities, thus enhancing the effectiveness of regional food marketing initiatives. At the municipal level, some see an opportunity to match regional food initiatives with other societal aims and public goods (integration, poverty, health issues). Other opportunities for regional food system are to focus on quality (specific health benefits, nutritional value, better tasting, ‘organic +’) and distinctive products and marketing concepts (see also Figure 16). Utrecht is a Fair Trade municipality, although this is not specifically linked to local food.

There are also opportunities to formulate food procurement goals when the city's current catering contract (contract up to 2019) will be renewed. The City Council explicitly asked for inclusion of some local/regional foods from the *Koekjesfabriek* en soups from the *Verspillingsfabriek*.

**Threats:** The variety and scale of regional food marketing remains quite small.

Figure 16:  
Stimulating new  
food behaviour



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## 5.2 Job and income creation

A second aim of a sustainable and resilient city region food system is to generate decent jobs and income – a vibrant and sustainable food economy offers fair and decent jobs and income opportunities for small-scale producers and businesses.

**Strengths:** The number of farm businesses that practise multifunctional agriculture in the Province of Utrecht is relatively high. There is also a high variety of urban agriculture activities in the City of Utrecht (school gardens, community gardens, allotment gardens, urban farms). Agricultural employees are generally well protected through several collective labour agreements.

**Weaknesses:** While there are many examples of regional food production, distribution and retail, these remain at relatively small scale and do not provide a higher number of jobs in the region. High prices for agricultural land make it very difficult for young and starting farmers to buy land; and they make small-scale farming unattractive from an economic perspective, unless high-value products and services can be offered or a higher-end market reached. At the same time, many farmers are aging and indicate that they have no direct successor for their farm. Many urban agriculture initiatives heavily rely on subsidies or grants, and the degree of continuity of jobs and income in

these initiatives is low. The number of agriculture jobs in the Utrecht Region is likely to decrease over the next years.

**Opportunities:** The socio-economic and political profile of Utrecht City offers opportunities for regional food businesses; political processes promote Healthy Urban Living, with a focus on food, through which connections can be built with a range of sectors (education, businesses, energy, recreation). Several instruments are currently under development (LEADER, Diagnosis Food Consumption and Health) to support local and regional food system entrepreneurs and initiatives. There are opportunities in linking regional food initiatives to a wide range of other (societal) services, but the value of these services need to be better monitored and demonstrated if economic transactions are to be established around them.

**Threats:** Regional food, without scale and the ability to benefit from providing other societal services, will not be able to compete with conventional or other forms of sustainable food marketing (organic, Fair Trade).

### 5.3 Fostering rural–urban linkages

A third aim of a sustainable and resilient city region food system is to foster rural–urban linkages by connecting food, nutrient and resource flows across urban and rural areas, and to prevent/reduce food waste. Urban–rural linkages should also foster social relations and the inclusiveness of smallholder farmers and vulnerable groups across the supply chain.

**Strengths:** Some inspirational initiatives in the Utrecht City Region aim to reduce food waste and to connect consumers with producers and services provided in the countryside.

**Weaknesses:** From a food production perspective, urban and rural areas are largely disconnected in the Utrecht Region. Only a very small percentage (less than one percent) of food flows from the region to the city. At city regional level, there are few examples of resource where nutrient and resource flows (organic waste, sewage sludge) are fed back into agricultural production. Although there are several initiatives to reduce food waste (mostly awareness campaigns or business concepts around food waste), these have not yet contributed to a significant reduction of food waste (at national level).

**Opportunities:** Responding to consumer demand and differentiating their marketing strategy, larger and more specialized actors in the food chain may continue producing for an international market, while simultaneously targeting a regional market. Some supermarkets, restaurants and producers already clearly focus on regional/local food. In the longer term, there are opportunities for regional food initiatives to collectively engage in nutrient flow recycling (organic waste, sewage sludge) and use these – processed safely – as input for food production or energy production. This may be an approach for regional food businesses to distinguish themselves from other sustainable food producers. The circular economy model is also gaining political attention in the City Region, and this may offer opportunities for regional waste processing for agricultural purposes. The LEADER initiative aims to improve urban–rural relationships and might offer additional opportunities for

this. In June 2017, the Province of Utrecht released a call for proposals for capacity strengthening of farmers to better integrate nutrient cycling in their production system (*kringlooplandbouw*). Funding is provided by the rural development programme of the European Union (POP3). Making rural funds available for city region food system development (as a kind of re-ruralisation of the city) could offer new possibilities for financing food-related initiatives in the Utrecht Region.

Recently, through the programme *Slimme en Gezonde Stad* (Smart and Healthy City) of the Ministry of Infrastructure and Environment, circular economy food projects are supported by Utrecht Municipality, the Ministry and *Rijkswaterstaat*, e.g. growing mushrooms on coffee waste.

**Threats:** Current general agricultural economic trends are likely to continue – the increase in farm size and the decrease in the number of farms. This could result in fewer different types of farm or fewer farms that produce for a regional market. Another threat is the demand for organic waste for energy production (gasification, bio-fuels), which puts pressure on the amount of materials available for processing of products that contribute to maintaining or increasing soil fertility.

## 5.4 Ecosystem and natural resources management

A fourth aim of a sustainable and resilient city region is to promote ecosystem and natural resources management. This can be done by protecting agro-ecological diversity and ecosystems while reducing the ecological footprint of the urban food systems – from production to consumption – and lowering greenhouse gas emission in food transport, processing, packaging and waste management.

**Strengths:** Utrecht City Region knows a number of important cultural landscapes and ecological landscape values, which have been historically shaped in co-production with agricultural land use. Multifunctional forms of agriculture are still present. Urban agriculture and gardening (including allotments and community gardens) play a role in preserving green spaces and providing education in several of the Utrecht Region municipalities.

**Weaknesses:** The ecological value of urban agriculture and gardening in the city of Utrecht is hardly documented. There is no clear policy support for developing ecosystem and resource management services of urban and peri-urban agriculture. Regional policies do not pay (much) attention to ecosystem services provided by agriculture and enhancing linkages with policies for leisure and recreation. There is no hard evidence that regional food systems contribute to fewer greenhouse gas emissions when compared with conventional food systems.

**Opportunities:** There is growing attention for nature-inclusive agriculture in Dutch national policy, as well as growing attention for internalisation of ecological costs in prices and “true cost” accounting of agriculture and food production.

**Threats:** Intensification and scale increase in agriculture may further undermine agro-ecological and landscape values. Lack of policy support and financial remuneration will not contribute to ecosystem and resource management. Urban growth puts pressure on land for urban agriculture and gardening. Increasing road infrastructures and building will disturb ecological connections.

## 5.5 Participatory and inclusive governance

A fifth aim of a sustainable and resilient region food system is to support participatory and inclusive governance, where food policy and appropriate regulations in the context of urban and territorial planning foster transparency and ownership of the food chain.

**Strengths:** The Municipality of Utrecht has its own food team (three full-time and one part-time employee). Political, administrative and societal support for establishing a common food agenda is growing and there is momentum to act on local and regional food. The Utrecht Municipal administration seeks to involve a wide range of stakeholders. A new programme by the University of Utrecht brings together fundamental research related to health, behaviour and innovations for future food production. By connecting knowledge, the programme aims to provide sustainable and healthy food solutions for the next generation.

**Weaknesses:** While there is a lot of dynamism, initiatives still remain fragmented and may compete amongst each other. Next to the Utrecht Municipal food team, there are other people working on food topics, albeit more ad hoc and fragmented/linked to the individual initiatives. Thus, although there is a small informal/dynamic network within the municipality with works on specific projects or topics on and around food, potential for coordination and collaboration could be enhanced. Relationships between civil society organisations and the municipalities are improving, but the roles of different stakeholders (public, civil society, private) are still insufficiently clear and need further definition. The Municipality of Utrecht can more clearly formulate and develop its own ambitions. Linkages between the Municipality of Utrecht and other municipalities in the Utrecht Region on issues of food policy are still relatively weak.

**Opportunities:** An open Food Network in Utrecht is in being established (May 2017). There are also several other initiatives structures and networks that provide support to all kinds of initiative and entrepreneurs (Social Impact Factory, MAEX.nl, Voor je Stadsie, Starter4communities, etc.).<sup>1</sup> Stakeholder workshops implemented in the context of the EU Food Smart Cities for Development project, this City Region Food System study and the Food-Print Utrecht workshops organised by Rabobank and BeBright provide a good basis to strengthen public-private and civil society partnerships. Utrecht's participation in the City Deal: Food on the Urban Agenda (focused on governance of the Dutch food system) provides new opportunities to learn from other cities and to strengthen not only its own municipal governance, but also its relations to other levels of government (province and national ministries). See Figure 17.

<sup>1</sup> See also: [www.utrecht.nl/bestuur-en-organisatie/initiatief-en-invloed/uw-initiatief/advies](http://www.utrecht.nl/bestuur-en-organisatie/initiatief-en-invloed/uw-initiatief/advies)

Figure 17: City Deal:  
Food on the Urban  
Agenda



**Threats:** The momentum for establishing a common food agenda may be threatened by competition among individual initiatives and there is need for appropriate leadership to stimulate stakeholders to look beyond their own interests. It is important to clarify the role of different local actors (including municipal governments, U10, civil society organisations and businesses) in the short term in order not to lose the current momentum. (Leadership) roles for the Municipality of Utrecht, U10 and the Province of Utrecht when it comes to food policy have to be defined. The Province of Utrecht also had intentions to support regional food and urban agriculture, but these have – to the project team’s knowledge – not yet translated into actual support for implementation.

# POLICY AND PLANNING INTERVENTIONS FOR THE UTRECHT CITY REGION FOOD SYSTEM

6

## 6.1 Food policy support in Utrecht

The Municipality of Utrecht has a history of periodically embracing regional food system elements. Through initiatives, such as *Eetbaar Utrecht* and *Lekker Utrechts*, regional food featured on the policy agenda in the years 2009–2014, with support of a one-time financial support programme (2010–2014) to stimulate urban and local agricultural initiatives (*subsidie “Stimulering van Stadslandbouwinitiatieven”*). After 2014, this one-time specific financial support was included – in other forms – in other programmes (e.g. *het Initiatievennetwerk, het Initiatievenfonds en het Makelpunt*).

Since then local governments in the Netherlands were (and still are) looking for a new role, shifting from partner/financer to partner/facilitator, working together with the civil society. This is seen as responsive governance: to join energy and urgency in society and facilitate and strengthen developments instead of taking a directive role. This is a nationwide phenomenon<sup>1</sup>. Consequently, roles of regional food distributors, such as Willem&Drees and Local2Local, became more visible in the regional food landscape.

Another example is the outsourcing of environment and nature education from the Municipality of Utrecht to semi-governmental institutes, such as *Utrecht Natuurlijk*. Food is part of this educational package, but not a main theme.

The Municipality of Utrecht, mainly through its ‘team food’ that is part of the Department of Public Health, is still re-identifying its role in developing food policy and food-related processes. Policy documents explicitly mention regional food: the Public Health policy document ‘*Bouwen aan een gezonde toekomst*’ (Building a healthy future) mentions that “*Utrecht is profiling itself internationally as city of local, healthy, and sustainable food*”. And: “*the municipality will connect with regional food developments and takes a facilitating and stimulating role*”. The Municipality sees a key role in stimulating healthy and sustainable food supply and consumption.

<sup>1</sup> The relationship between state, market and civil society is changing in the Netherlands. Under pressure from decreasing government budgets and a growing movement of assertive citizens, the relationship between the public and private sector is changing. Public sector responsibilities that traditionally included, for example, (health) care, energy production and management of public spaces management, are shifted to other stakeholders. The current Dutch policy environment aims to stimulate civil society and private sector players to take responsibility and assume a larger share of the tasks that were traditionally performed by the government. This ambition is summarized in the phrase ‘participatiesamenleving’ (participative society), and is exemplified by bottom-up citizen initiatives taking over government tasks, such as the management of public green spaces as well as the privatisation of public goods and services, especially at municipal level. The idea is that responsibility should be given back to civil society and private players and that this allows the government to focus on its core tasks and to function on a reduced budget. This national trend is also influencing governance at local (city region) level.

## 6.2 Proposed planning and policy interventions

Through stakeholder consultations, the CRFS project team identified four thematic priorities for future development of policy and planning interventions by both the Municipality and other stakeholders (civil society, research, businesses):

- **Local and regional food:** increasing the availability, access and use of local and regional food in the U10 region;
- **Role of food in a healthy and inclusive city:** using food as an entry point for a healthier, more inclusive city;
- **Urban agriculture, community and allotment gardens and social economy:** finding ways to measure, recognise and reward its added value;
- **Food governance:** developing and supporting inclusive and transparent food decision-making.

### Local and regional food

This study illustrated that, from a food perspective, the connections between the municipalities in the Utrecht Region and the farms and farmland that surround them have largely disappeared. Although several farms specifically produce for the City Region, their number is low, and the share of volume and importance of turnover is even smaller. Farm businesses increasingly look for other ways to connect with the urban consumer, by providing recreation, education, welfare, environmental and recently, energy provision services. Local/regional food could be better marketed in this perspective.

Suggested interventions include:

- **Improve the match between supply of local/regional food and demand.** Developing regional food markets requires improved coordination between urban food demand and supply of regional food products from farm businesses located in surrounding municipalities. This requires increased collaboration and coordinated food policy action between the 10 municipalities in the U10 region and with the Province of Utrecht. It would also require expansion and continuation of data collection and analysis on regional food supply sources.
- **Facilitate improved visibility of regional food and multifunctional farming in the region.** This could be done, for instance, by continuing with the food awards (as done in the EU Food Smart Cities project), promoting regional food products (like those from existing initiatives such as *Lekker Utrechts* in food procurement – see further below and Figure 18) and farmers' markets.



Figure 18:  
Various local and  
regional food  
products

- Procurement of regional food.** The U10 municipalities can set the example by setting targets for regional food in their catering contracts, with incrementally increasing shares of regional food so that producers can adapt production based on increased demand. The current municipal catering contract (valid until 2019) contains targets on organic food products, and the caterer occasionally provides regional food. In other cities in Europe, for example [Bristol in the UK](#), and driven by strong public pressure for improvements to school and hospital meals, a novel (national) catering mark proves to be an effective tool for driving qualitative change in public sector catering while providing unique opportunities for city region producers, processors and other suppliers. The catering mark is a voluntary accreditation scheme with a focus on provenance and traceability. In 2015, the city of Rotterdam in cooperation with the Province Zuid-Holland commissioned a study into the potential for growth in short food supply chains, and catering for institutional buyers (hospitals and homes for the elderly) were identified as a potential growth market. This will likely be similar for the Utrecht Region.

#### Role of food in a healthy and inclusive city

The Municipality of Utrecht is one of the healthiest municipalities in the Netherlands. At the same time, the unhealthiest neighbourhood is also located in the municipality. Municipal strategies to tackle unhealthy food behaviour include social inclusion programmes, education of children and neighbourhood programmes. The municipality seeks to stimulate citizens into making healthier food choices (and to exercise more), through influencing the built environment, promoting the healthy sports canteen and increasing healthy food offers. Similar activities are undertaken in [Amsterdam](#).

The Municipality of Utrecht is one of the founding partners of the programme Diagnosis Food and Health, which was launched in the summer of 2017. It leads the cluster on 'Awareness of healthy and sustainable food, strong food education, and integration of the food theme' and also the cluster 'Healthy food choices, healthy food environment in an inclusive society' in the Dutch City Deal: Food on the Urban Agenda.

Food is already part of the Public Health Policy of the Municipality of Utrecht. The Municipality is also working on integrating (food) health and sustainability within other departments, especially focussing on the "spatial/physical environment".

Suggested intervention:

- **Food, health and sustainability should be integrated within each project and programme.** This is either still too fragmented or else projects focus on one aspect and (partly) neglect other aspects. For example, when working on local food, health benefits for inhabitants of the Utrecht Region should be given explicit attention. Healthy, local and sustainable food programmes could be better integrated, in order to avoid competition and also to reduce confusion at consumer level (which of these different food products is best?). Monitor triple benefits (food, health and sustainability benefits) in all projects and programmes and evaluate their success. Use existing food consumption and behaviour monitoring to this effect. This may require the development and monitoring of new indicators (see also Annex 1).

### Urban agriculture, community and allotment gardens, and social economy

Several businesses, organisations and initiatives in the Utrecht Region work in the field of urban agriculture: urban farms and horticulture gardens, community gardens, allotment gardens, and educational programmes. Many urban agriculture businesses are still very fragile and rely on short-term subsidies. Support would have more impact if urban agriculture and food projects were supported for longer periods of time and in a more coordinated manner. It is also important to develop and test mechanisms where urban agriculture service providers are rewarded for specific socio-economic goals that are measured accordingly.

Proposed interventions:

- **Explore longer-term private sector support to urban agriculture.** Real estate companies could integrate food production and waste recycling in their standard development strategies. Certification systems for sustainable building, such as BREEAM and LEED, now include points for food production in gardens or on roofs and local waste processing with digestion or composting. A good score in turn gives access to green funding. Inspiration could be taken from [Rotterdam](#), where social housing corporations, such as *Havensteder*, *Vestia* and *Woonstad Rotterdam*, as well as commercial real estate developers, have played an important role in facilitating urban agriculture and food-related initiatives by providing access to land and financial support.
- **For commercial urban agriculture and other short supply chain initiatives, gear public funding towards market exploration and access rather than start-up grants.** [A study on the role of private sector in the Rotterdam](#) city region food system concluded that that start-ups in short food supply chains require initiators with a strong drive. It is not easy to make money in the early years of the start-up phase. People need to be motivated for other reasons. Grants cannot solve this because they may support initiatives that are designed to meet the criteria of the grant rather than the demands of the market. Start-ups that are initially funded by family, friends and 'fools' (such as Willem&Drees) are more market focused. They are eager to find and explore opportunities in the market (rather than acquire grants). This also means that they look for opportunities to 'mainstream' (i.e. extend the consumer base beyond the common niche) and will not deviate too radically from what is offered in the conventional food supply chain. As these initiatives grow they may need public funding to seize the opportunities that exist, whilst still holding on to the ecological and social ambitions that they want to accomplish.

- **Recognise and value the role of social entrepreneurs.** There are also many social entrepreneurs and socially motivated professionals – who include artists, designers, gardeners, educators, philosophers and specialists – that engage in urban agriculture. They are citizens in the Utrecht Region and can be considered part of civil society, but at the same time they may try to make a living from their activities. It can be argued that social entrepreneurs form an important part of the urban landscape, not just in the area of food production but also in terms of social cohesion, social care and job coaching. Projects by social entrepreneurs also attract volunteers who are able and willing to support the social entrepreneur in engaging the (usually disadvantaged) target group. This is the participative society at its very best. It is, however, important not to promote this model as the alternative to providing urban welfare in the more classical sense (through public or private services that are properly financed and professionally managed). This type of project is not always suitable for some target groups, e.g. those with major disabilities, and this model therefore cannot be an alternative for the welfare system as a whole. Social entrepreneurs are under constant pressure to apply for municipal and philanthropic funding, to engage in social media contests to win extra budgets or to cut back on their own standards of living to navigate periods of lack of funding (e.g. most social entrepreneurs are not properly insured, nor do they save for a pension). It should also be noted that the more dependent an urban food initiative becomes on income from sales, the more restricted they become in terms of people who can participate. Thus, social entrepreneurs are ‘competing’ over easy to engage target groups and they might also ‘compete’ over volunteers who are able and willing to work in this increasingly challenging environment. Because of the relatively small-scale, localised character of these services, as well as the personal ‘pragmatic idealistic’ approach of these entrepreneurs, their work is not always recognized for their societal benefits. Formal structures do often not recognise social entrepreneurs. Social entrepreneurs are, for example, denied access to the emerging ‘market’ for care or re-integration by formal procurement rules. This is because they lack a track record in social service provision or they lack the depth of required services, as they are specialising in skills training and do not offer other services such as personal debt restructuring, for example. In addition, social entrepreneurs are also lacking the monitoring and evaluation structures to quantify and valorise their performance and which are required for outsourcing contracts. However, these municipal contracts could offer a more reliable market-based source of income for social entrepreneurs (as opposed to relying on private funds or grants). In 2015, several social entrepreneurs in Rotterdam started discussions with the city to identify how to organize more structural access to municipal funding and the possible need to professionalize in order to meet legitimate administrative requirements of public funding. Can the Utrecht Region take lessons from these experiences?

### Food governance

The Municipality of Utrecht engages in several local, national and international platforms. Food features to a larger or smaller extent on network agendas.

Suggested interventions:

- **Food as part of U10 and other inter-municipal cooperation.** If there are shared ambitions to strengthen regional food systems in the Utrecht Region, it is important that food more strongly becomes part of an inter-municipal agenda (U10 and ideally other municipalities in the province that have relatively high representation of farmers and farmland) and is also included in provincial agendas. The Municipality of Utrecht itself hardly has any farmland, and will be largely reliant on farm businesses from surrounding areas for regional food products.
- **Local food initiatives should work towards common goals and needs.** There is a strong degree of dynamism and a wide range of local actors implementing food system initiatives. A strong sense of urgency to tackle food-related issues is shared amongst different actors, and there seems to be common ground that a fundamental transition of the regional food system is needed. At the same time, however, different initiatives of local actors remain very fragmented and there is a lack of coordination. Stakeholders are not (always) aware about each other's activities and not one actor really seems to have total oversight. There is a need to share information on who is doing what, when and why, and how different initiatives can better link or collaborate. Local small-scale farmers, processors, wholesalers and retailers for example can each become more competitive, through product aggregation, sharing of infrastructure and resources, pooling of consumer demand, and/or integration of their products into mainstream distribution channels.

Figure 19:  
Stakeholder  
workshops



## LESSONS LEARNED AND RECOMMENDATIONS

### 7

### 7.1 Expand and continue data collection and analysis on regional food

The Utrecht CRFS assessment has clearly demonstrated that there is a strong lack of data on regional food systems and a need to collect further data to orient evidence-based policymaking. At the start of the CRFS project, a comprehensive overview of regional food initiatives was not available, not even on the basis of secondary data sources. Data sources on regional food systems were fragmented and incompatible because of differences in definitions and because of boundary issues. In response, the project team developed a comprehensive data set with the aim of capturing the number, diversity and composition of regional food businesses in the Utrecht Region.

The data set contains information about farms that provide food products, food processors, wholesalers, retailers, restaurants and caterers for explicit regional food marketing. This allowed the project team to make estimates on percentages of farm businesses that produce explicitly for the Utrecht Region and market their products as such. The database is available to Utrecht Region stakeholders who could make the most use of it by updating and including additional information on current data gaps, such as: employment figures (number of jobs in the city region food system); the share of regional food in total business turnover; regional food volumes and flows, and trends over time (increase or decrease and why?). Citizens' science and data collection through social applications may provide lower-cost sources of data.

As regional food system business opportunities exist not only in traditional food services (production, processing and retail) but increasingly in resource recycling and technological innovations, these urban- and rural-based water, energy and other non-food sectors may also be included in future data collection.

### 7.2 Comparing conventional and regional food systems

The CRFS research did not aim to compare the performance of more conventional with more regional food systems. Yet the CRFS research has resulted in generating better insights in the performance and different aspects of the city region food system in the Utrecht Region itself.

There are various examples across the world of how supporting local/regional food systems, next to conventional food systems, can help to serve multiple food system outcomes for health, economic development, environmental sustainability and resilience. For example, Belo Horizonte (Brazil) promotes a more localised food system with the objective to improve food and nutrition security for the (poor) urban population, as well as to improve livelihoods of small-scale producers. The government of Belo Horizonte has recognised that small family farms in the city region are an important component of a healthy, sustainable urban food system, and hence an important contributor to the welfare of urban residents in the long term. Research in Ontario, Canada provides another example that illustrates the potential impact of a city region food system by demonstrating the modelled impact that a 10 percent substitution of imported fruit with increased local production would have. The research concludes that 'The Ontario-wide impacts would be CAD 130 million in GDP, an additional 1 837 FTE jobs and an extra CAD 37.8 million in total taxes' (Dubbeling et al., 2016). The development of similar scenario studies for the Utrecht Region could offer new interesting impact data for the city and other stakeholders.

They could also provide insight into the potential impacts and benefits of a city region policy that seeks to strengthen regional food systems. The exploration of such scenarios would be in line with the importance given in city policies to promote regionally sourced and fresh food products. Further impact studies on the local/regional food system (number of jobs created in the food system, as well as social and health impacts) would be needed.

### 7.3 Incorporating food in policies for healthy urban living

Creating living environments that support human health and well-being and promote healthy lifestyles are important components of Utrecht's public health policy under the heading Healthy Urban Living. However, within the overall policies for Healthy Urban Living, the link with food has yet to be developed, either very well or explicitly. Several options exist to further strengthen food-related measures within city health policies. One category mostly aims at creating a healthy food environment: on the one hand, the availability of unhealthy food and drinks is regulated and/or discouraged, while on the other hand the availability of healthy food and beverage products is stimulated – thereby making the healthy choice the easy choice. In the specific context of Utrecht, locally/regionally produced food can be promoted as part of a healthy food environment by supporting urban agriculture or by enhancing the healthy food offer in public facilities (including sport canteens and universities). In addition, municipal policies, such as zoning by-laws, could provide an opportunity for Utrecht to regulate building location and the type of products offered. Award schemes (see Box 9) and street design (see Box 10) are two of such possible strategies that may inspire municipalities in the Utrecht Region.

**Box 9: Bristol free award scheme for food business**

The majority of adults in Bristol (UK) are either overweight or obese and there's a real issue with tooth decay in children. As a result, Bristol set up a new award scheme to help increase the availability of healthier food and drink options for everyone. In a recent Bristol survey 72 percent of respondents said it was important to have healthier options available. The free award scheme publicises food businesses that take actions to offer food that is healthier and more environmentally friendly. Businesses will receive an award certificate, a window sticker and access to other electronic resources. They will also be published on the award website and promoted elsewhere as opportunities arise.



Bristol Eating Better Ward Certificate.

©FAO/ [www.bristol.gov.uk/food-business/bristol-eating-better-award-scheme](http://www.bristol.gov.uk/food-business/bristol-eating-better-award-scheme)

The scheme is not about asking businesses to completely change what they do or sell. Rather, it's about making small changes, offering a few alternatives and adopting a few subtle techniques to encourage the selection of these alternatives. Many of the actions will also save the business money or help them to attract more customers. As not all actions will suit every business or indeed be applicable to them, the scheme allows for flexibility.

A list of all the actions can be found on our summary sheet but some examples include: lowering sugar/salt/saturated fat in some products; agreeing not to actively promote unhealthy items; making fruit and/or vegetables an inclusive part of every meal; taking steps to minimise food waste; buying fish which is not on the endangered list; and buying locally produced food. The more actions taken, the higher level of award.

The scheme is aimed at food businesses whose main activity involves making food for direct sale to customers, such as restaurants, takeaways, cafes and coffee shops.

**Box 10: Healthy high streets**

In February 2018, Public Health England published a [report](#) exploring how the design of high streets can impact public health. It highlights how – particularly in areas of high deprivation – small, independent food retailers are being undermined by a proliferation of fast-food outlets.

The report suggests that ‘built environment disciplines need a greater awareness and focus on health, while the health workforce needs a greater awareness and focus on built environment interventions, in order to facilitate more and better collaboration between public health, planning, design, and, crucially, communities, to support the development of high streets that are ‘health enhancing’.

The report recommends, among other things, that ‘Directors of public health, and local authorities including planning authorities, should:

- Ensure that the regeneration and development of high streets focuses on inclusive design for all, and that opportunities to reduce health inequalities are maximised.
- Use planning and licensing policies to influence the retail offer on the high street, protecting locally owned retail stores and tackling over-concentration of certain shops, to conserve retail establishments that stock healthier, locally sourced products’.

As well as creating healthy food environments, other measures that promote healthy food behaviour by means of ‘nudging’ – i.e. by subtle rearrangements of the food choice context that gently guide consumers to healthier food choices – are promising. However, the most effective ways to employ such measures in food policies, taking into account socio-economic and cultural differences, still needs further study and elaboration. This might be taken up in collaboration with the University of Utrecht, which has a number of interesting research lines on food behaviour and nudging. This topic might be further developed with other Dutch cities in the framework of the City Deal: Food on the Urban Agenda, in which the City of Utrecht co-leads a working group on ‘Health, education and social inclusion’. It may also be developed within Utrecht’s new programme Food and Health (Diagnoseprogramma Voeding & Gezondheid).

## 7.4 Facilitate a robust regional food network and common food agenda

Resulting from the multi-stakeholder discussions organised in the context of this research and the Food Smart Cities for Development project, the Utrecht Municipality, the University of Utrecht (Hub Future Food), the Economic Board, the local Rabobank, the programme Food and Health (Diagnoseprogramma Voeding & Gezondheid) and the Province of Utrecht have taken the initiative to set up a regional food platform or network. This network will be a place to meet, exchange and get inspired. Joint meetings among (social) entrepreneurs, professionals, government staff and engaged citizens will be organised 2 to 3 times a year. The goal will be to jointly develop a healthy, sustainable food environment in the Utrecht Region. Such a network fits the ambitions of the City of Utrecht to facilitate and inspire and help to connect different stakeholders and networks to strengthen and accelerate food initiatives that support the realisation of common ambitions.

Agenda items for such meetings could include:

- Identify shared ambitions, as stakeholders in Utrecht are advocating a broad range of (individual) food agendas. Use the past stakeholder meetings, and the suggested policy and planning interventions that resulted from them, as a basis for a clear definition of joint stakeholder interests and common topics. It is only by bringing together all the different initiatives that food system change can be achieved.
- Updates on who does what in order to enhance interaction and creation of synergies between existing and new food initiatives and businesses. As in Toronto, every meeting could start by giving visibility to “a local food hero”, who presents their initiative and are thus given a chance to share what they do and to get recognition.
- Discuss the best use of existing programmes and channels to strengthen new food initiatives and to continue supporting existing food initiatives where possible.
- Design specific knowledge exchange and learning and research activities based on the common food agenda. For instance, how to design a healthy food environment or how better to investigate the added value of regional food systems when compared to conventional food systems.
- Serving and tasting local food and drinks, thereby promoting local producers and contributing to a local, shared food culture.

Furthermore, the meetings would be recommended to:

- Elaborate a short common message on what the food network is about.
- Assign one person as a network coordinator and fixed contact point.
- Be open to all interested individuals/stakeholders.
- Keep the presentations/discussions limited to maximum 3 to 4 hours; and engage participants in joint activities (a field visit, participatory design of strategies).



Figure 20. Partners in the regional food platform.

## 8

## CONCLUSIONS

The results of the Utrecht CRFS assessment have contributed to the strengthening of food policy processes at local, regional and national level. The outcomes of the CRFS research have helped the City of Utrecht, as well as other local and regional stakeholders, to obtain a better overview of the structure, characteristics and challenges of the regional food system. Multi-stakeholder meetings that were organised in the framework of the CRFS research process, partly in conjunction with the Food Smart Cities for Development project, have helped the City of Utrecht to obtain a more complete and up-to-date overview of relevant stakeholder organisations and initiatives that play a key role in the local and regional food system. The Utrecht CRFS assessment has also contributed to increased attention for the importance of integrated regional food system approaches at provincial and national level in the Netherlands.

The Utrecht CRFS project occurred in a context in which the City of Utrecht was engaged in reorienting its local food policy commitments. The City had recently signed the Milan Urban Food Policy Pact, thereby expressing and confirming its continued commitment to overall food policy goals, but at the same time it was clear that existing food policies needed to be evaluated and adjusted. Also, it was clear that food networks and initiatives developed in previous years were undergoing rapid changes and that a new (re-)connection between city administrations and local stakeholder networks had to be established. Stakeholder meetings for the CRFS project, in conjunction with the Food Smart Cities for Development project, were instrumental for renewing networks with an expanding range of relevant stakeholder organisations and food initiatives in and around Utrecht city. This included organisations active in the area of food waste and losses, urban agriculture and community gardening initiatives, local food marketing and short-chain distribution initiatives. Many of these stakeholder and food initiatives were previously insufficiently articulated with the Utrecht city administration. Additionally, network relations were extended beyond the boundaries of the City of Utrecht and possible collaborations and common food policy agendas were explored with actors such as the province of Utrecht, the inter-municipal collaboration in the U10 region and regional agri-food policy networks, such as LEADER, that are present in the east and west part of the city region.

The CRFS project in the Utrecht region also contributed to food policy development at national level. During the implementation of the Utrecht CRFS research project a national collaboration and exchange network between Dutch cities and ministries engaged in food policies was established under the name of the City Deal: Food on the Urban Agenda. In this network the City of Utrecht has played a leading role from the start and co-leads one of the central thematic working areas of inter-municipal collaboration and exchange in the City Deal, namely the area of 'Food health, education and social inclusion'. The national City Deal: Food on the Urban Agenda, in combination with more localised policy processes such as the Diagnosis Food and Health and the establishment of a regional food platform in collaboration with key partners, such as the Utrecht Economic Board, the University of Utrecht and the local Rabobank, provide a fertile ground for the further development and articulation of a common, integrated food policy for the Utrecht City Region Food System.

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## ANNEX 1

Annex 1: Relevance and analysis of sustainability dimensions of the Utrecht Region City Region Food System (based on: [www.ruaf.org/sites/default/files/City%20Region%20Food%20System%20Indicator%20Framework\\_1.pdf](http://www.ruaf.org/sites/default/files/City%20Region%20Food%20System%20Indicator%20Framework_1.pdf))

SOCIAL SUSTAINABILITY AND EQUITY: MEDIUM	
GOAL: IMPROVE HEALTH AND WELL-BEING AND INCREASE ACCESS AND RIGHT TO FOOD AND NUTRITION	
<p>Sub-goal: All rural and urban residents have access to sufficient, nutritious, safe, healthy, appropriate and affordable food.</p>	<p>Utrecht stakeholders emphasise the importance of this goal. The Municipality of Utrecht has a strong focus on public health and on the relation between food consumption patterns and meeting food behaviour norms. It is specifically concerned with social differences among different groups in society.</p> <p>Safe and nutritious food is generally accessible to all inhabitants of the Utrecht Region. More vulnerable groups can also apply for food bank support. Given high levels of obesity and diabetes among the population, diet-related health concerns receive high attention.</p>
<p><i>Analysis:</i> Extent to which food is accessible, affordable, safe; extent to which diets are sufficiently nutritious; extent to which diets are environmentally sustainable (e.g. animal proteins, seasonality, highly processed, etc.); levels of access by vulnerable groups.</p>	<p>Looking at environmental sustainability, Dutch diets in general have a relatively high animal protein content, and are thus less environmentally sustainable compared to diets based on larger amounts of non-animal products.</p> <p>Since individual food consumption behaviour is difficult to change, the Municipality of Utrecht focuses on influencing behaviour through changes in the food environment (<i>voedselomgeving</i>). The Municipality of Utrecht regards food behaviour as an important entry point for health improvement. The Municipality of Utrecht is aiming to help people eat more healthy food, through nudging and neighbourhood programmes, and through community projects.</p> <p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Composition of diets (national level) (see baseline values in this report);</li> <li>• Health indicators that show a relation to food consumption; diet-related health concerns include the percentage of population that can be classified as being overweight or severe overweight (Utrecht: 26 percent overweight, 10 percent severe overweight, 2016);</li> <li>• The percentage of the population in Utrecht that always/often buys organic food products (32 percent in 2016);</li> <li>• The percentage of the population in Utrecht that always/often buys seasonal food products (65 percent in 2016);</li> <li>• The percentage of the population in Utrecht that always/often buys regional food products (18 percent in 2016).</li> </ul>

SOCIAL SUSTAINABILITY AND EQUITY: MEDIUM	
GOAL: IMPROVE HEALTH AND WELL-BEING AND INCREASE ACCESS AND RIGHT TO FOOD AND NUTRITION	
<p>The city region food system supports a visible local food culture and sense of identity.</p>	<p>This sub-goal has specific relevance for those organisations and businesses that explicitly support regional food systems, such as regional food cooperatives, civil society organisations and semi-governmental programmes (such as LEADER) that advocate a regional food agenda and regional food events. Regional food in the Netherlands can be considered as a niche product. By definition, niche products contribute to relatively small amounts of the total market share, or volumes (up to 3 percent). The project team estimates that the total volume of regional food products that are explicitly labelled as regional food products (such as Lekker Utrechts) have a market share of less than 1 percent, although specific data on volumes produced and consumed in the region are not available.</p>
<p><i>Analysis:</i> Extent to which locally produced food is consumed in the city region.</p>	<p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• The percentage of the population in Utrecht that always/often buys regional food products (18 percent in 2016);</li> <li>• Number of food events held annually in the city region (15 in 2016);</li> <li>• Number of farmers' markets in the region (5 in 2016/2017);</li> <li>• Number of regional food distributors (5 in 2017/2017);</li> <li>• Number of farm businesses that sell products from the farm (24 – RUAUF 2017; 58 – CBS, 2016);</li> <li>• Percentage of farm businesses that produce explicitly for local or regional food systems (5.8 percent – RUAUF, 2017);</li> <li>• Number of farm businesses that sell products explicitly for local or regional food systems (49 – RUAUF, 2017);</li> <li>• Number of restaurants in the region that explicitly work with regional food products (23 – RUAUF, 2017);</li> <li>• Number of Community Supported Agriculture (CSA) structures in the Utrecht Region (5 in 2017).</li> </ul>
<p>Stronger social relationships exist between consumers and producers, including small-scale farmers and vulnerable groups.</p>	<p>Multifunctional agriculture, urban agriculture businesses and community gardens are strongly represented in Utrecht Province when compared to other provinces in the Netherlands. It should be noted that the relationship between consumers and producers is not just about the food product, but more often about other services that farm businesses provide to consumers: education, recreation, environmental services, energy production, health care and welfare services.</p> <p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• The percentage of the population that always/often buys regional food products (18 percent – 2016, Municipality of Utrecht);</li> <li>• Percentage of farm businesses that provide agro-tourism services (4 percent – CBS/Provincie Utrecht, 2016);</li> <li>• Percentage of farm businesses that provide educational services (3.9 percent – CBS/Provincie Utrecht, 2016);</li> <li>• Percentage of farm businesses that provide welfare services in Utrecht Region (1.6 percent – CBS/Provincie Utrecht);</li> <li>• Percentage of farm businesses in the region that explicitly produce for consumption in the region (6.8 percent – CBS/RUAUF/Provincie Utrecht, 2016);</li> <li>• Percentage of farm businesses with a farm shop in the region (6.8 percent – CBS/Provincie Utrecht, 2016);</li> <li>• Number of urban agriculture initiatives/businesses (70 – RUAUF, 2017);</li> <li>• Number of wholesalers that explicitly distribute regional food products (5 – RUAUF, 2017);</li> <li>• Number of Community Supported Agriculture (CSA) structures in the Utrecht Region (5 – RUAUF, 2017).</li> </ul>
<p><i>Analysis:</i> Extent to which strong social relations exist between producers and consumers.</p>	

SOCIAL SUSTAINABILITY AND EQUITY: MEDIUM	
GOAL: IMPROVE HEALTH AND WELL-BEING AND INCREASE ACCESS AND RIGHT TO FOOD AND NUTRITION	
Consumers are well-equipped with knowledge and skills on healthy food and diets.	<p>Different educational food programmes, school gardens and <u>school programmes</u> are implemented in the Utrecht Region. Data are available on the percentage of people that meet certain food behaviour norms (eating sufficient fruit and vegetables, having breakfast at least 5 times per week and others). However, data on the degree of food knowledge, the amount of time spent in the kitchen per day and the number of meals that were cooked from scratch are not available.</p> <p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Number of school gardens/programmes and educational gardens (8 in 2017 – RUAUF 2017 data set);</li> <li>• Percentage of adult population of the municipality that meets breakfast norm (8 percent – Municipality of Utrecht, 2012);</li> <li>• Percentage of adult population of the municipality that meets vegetable norm (48 percent – Municipality of Utrecht, 2012);</li> <li>• Percentage of adult population of the municipality that meets fruit norm (37 percent – Municipality of Utrecht, 2012).</li> </ul>
<i>Analysis:</i> Extent of participation, gaps and opportunities of improvement.	

ECONOMIC SUSTAINABILITY: LOW	
INCREASE LOCAL ECONOMIC GROWTH AND GENERATE DECENT JOBS AND INCOME	
A vibrant and sustainable regional food economy that retains the 'local food dollar'.	<p>The Utrecht city region food system analysis argues that the current regional food system in the Utrecht Region is highly dynamic. Producer initiatives, processors, retailers, wholesalers, and restaurants and caterers that work with regional food products come up, but also die down. There may be a slight increase in the volume and financial value of the total turnover of regional food products that are consumed in the region, although this research has not found hard data to support this assumption. Food distribution, through internet applications and competition in logistics, has increased its cost efficiency, and regional food businesses can, to some extent, benefit from this development.</p> <p>Several barriers prevent stronger growth of the regional food system: high agricultural land prices that prevent young farmers from starting, the aging farming population and the still limited consumer demand.</p> <p>The regional food economy also competes with marketing channels, such as organic and other sustainability labels and certification schemes. Supermarkets dominate food retail in the region and there is no proof that supermarkets have very successfully partnered with regional food producers (for example, Willem&amp;Drees stopped selling regional food to supermarkets in 2016).</p> <p>As to retaining the 'local food dollar', no assessment can be given since information on turnover of regional food in the region is not available. An analysis of economic behaviour of regional food systems compared to conventional food systems was beyond the possibilities in this project. Although data on the number of jobs that are related to the food system as a whole are available, data on the number of jobs that are directly linked to the regional food system are not available.</p> <p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Percentage of farm businesses that produce explicitly for local or regional food systems (5.8 percent – RUAUF, 2017);</li> <li>• Number of retail points for regional products in the region, including pick-up points (57 – RUAUF, 2017);</li> <li>• Number of jobs in the food system (no comprehensive data set).</li> </ul>
<i>Analysis:</i> Extent to which there are opportunities to create jobs in the food system and retain more of the 'local food dollar'.	

ECONOMIC SUSTAINABILITY: LOW	
INCREASE LOCAL ECONOMIC GROWTH AND GENERATE DECENT JOBS AND INCOME	
Fair and decent (formal and informal) jobs and income opportunities for small-scale producers, workers and businesses are supported throughout the food system.	Current rural support programmes do not (yet) focus on fair jobs or on improving occupational conditions, but rather on improving entrepreneurial skills and improving market conditions.
<i>Analysis:</i> Extent to which there are gaps and vulnerabilities; opportunities for improvement.	
Producers have increased access to a wide range of market options in the city region.	The options for producers in the region to market their products include: farm-sale; community supported agriculture/box schemes; local retail; restaurants or catering; regional food cooperatives (such as Local2Local, Groenehart Streekproducten); selling to a wholesaler such as Willem&Drees; and farmers' markets. In this sense, producers have access to a wide range of market options. More coordination is deemed necessary for producers and among marketing channels to successfully make use of these market options.
<i>Analysis:</i> Potential for increased local sales.	<p>Most relevant <b>indicators</b> for this sub-goal are:</p> <ul style="list-style-type: none"> <li>• Number of local markets (5 in 2017 – RUAUF 2017 data set);</li> <li>• Percentage of farm businesses that produce explicitly for local or regional food systems (5.8 percent – RUAUF, 2017);</li> <li>• Number of wholesalers that explicitly distribute regional food products (5 – RUAUF, 2017).</li> </ul>

URBAN-RURAL INTEGRATION: LOW	
SUPPORT A LOCALIZED FOOD PRODUCTION AND SUPPLY SYSTEM	
Local food production capacity is optimized.	From the Utrecht Region perspective, there is a gap in the production of regional vegetables, meat and eggs. Fruit and dairy production is more locally present and provides opportunities for providing a regional market. Since there are few large-scale vegetable producers in the region, regional food distributors need to source their vegetables from the Flevopolder or elsewhere, beyond the Utrecht Region.
<i>Analysis:</i> Extent to which sustainable city region production capacity is fulfilled and can be increased.	<p>Most relevant <b>indicator</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Number of farm businesses in the Utrecht Region, by type, that produce explicitly for the Utrecht Region (49 – consisting of 7 dairy, 14 fruit, 21 vegetable, 5 meat, 0 eggs, 2 honey).</li> </ul>
Flows of food, nutrients, energy and other resources connect across urban and rural areas.	<p>Currently, there seems to be very little connection between the (regional) food system and a more circular economy. Composting and energy production services only take place to a limited extent.</p> <p>Potential for increasing local flows seem limited in the short term, as economy of scale and legislative barriers prevent this. Depending on the outcomes of ongoing policy discussions on the circular economy this may change in the mid-or longer-term future.</p>
<i>Analysis:</i> Potential for increasing these local flows.	<p>Most relevant <b>indicator</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Number of circular economy initiatives (the research provides information on some of these initiatives, but no quantification has been made).</li> </ul>

URBAN–RURAL INTEGRATION: LOW	
SUPPORT A LOCALIZED FOOD PRODUCTION AND SUPPLY SYSTEM	
Efficient and functioning agricultural supply chains connect the city with its hinterland.	Agricultural supply chains are generally very efficient in the Netherlands, and in the Utrecht Region, because of its relative small geographical area and high-quality infrastructure, and so products are easily transferred to points of processing or distribution.
<i>Analysis:</i> Identify gaps and vulnerability (e.g. to market shifts, climate change, disaster risks, etc.) and potential for improvements and investment.	

ENVIRONMENTAL SUSTAINABILITY: NO SUFFICIENT DATA	
IMPROVE PROTECTION AND MANAGEMENT OF ECOSYSTEMS AND ENVIRONMENTAL RESOURCES	
Agro-ecological diversity is protected and promoted.	<p>It should be noted that environmental management was not covered in depth, as it did not come up as a key food system priority in the multi-stakeholder project discussions. Several farm businesses in the Utrecht Region participate in environmental stewardship programmes (and receive benefits for providing environmental services). Other farms have an organic agriculture certificate or a certificate for biodynamic agriculture. The number of farms with an organic agriculture certificate in the Province of Utrecht has been quite stable (just below 100) over the past years, although the percentage has increased slightly in the period 2011–2016 (from 3 to 4 percent). This same increase can be found for the surface area of farmland labelled as organic agriculture. It is not known, however, whether this increase has been the result of pro-active policy or because a larger number of conventional farms have stopped producing.</p> <p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Percentage of farm businesses with an organic agriculture certificate in the Province of Utrecht (4 percent – CBS, 2016);</li> <li>• Percentage of agricultural land farmed as organic agriculture (4 percent – CBS, 2016).</li> </ul>
<i>Analysis:</i> Extent to which policy and consumer demand could increase organic and agro-ecological production practices.	
Urban and natural ecosystems are managed well.	This CRFS project has not analysed this topic.
<i>Analysis:</i> Extent to which food system actors have access to good quality resources; extent to which improvements can be implemented.	
Greenhouse gas emissions in the food system are reduced.	The reduction of greenhouse gas emissions is important for the City of Utrecht. However, the focus is rather on transport emissions and on the use of non-fossil fuels. There are currently no data on food system emissions. Citizen surveys (2016) do try to get information on citizen behaviour towards safe energy and improving the environment. Potential answers include separation of waste, buying Fair Trade, organic or regional food products, and buying or growing products from urban agriculture. The 2017 survey includes an additional option on meat consumption (consuming no meat or less meat).
<i>Analysis:</i> Opportunities for improvements.	

ENVIRONMENTAL SUSTAINABILITY: NO SUFFICIENT DATA	
IMPROVE PROTECTION AND MANAGEMENT OF ECOSYSTEMS AND ENVIRONMENTAL RESOURCES	
Food loss and waste is reduced (and re-used) throughout the food system.	Food waste per capita production is quite high in the Netherlands and the Utrecht Region. Food waste prevention campaigns were carried out on a national level, but have shown little success in significantly decreasing food waste (data from national level). In the Utrecht Region several initiatives and businesses work towards reducing food waste, but these require upscaling. Measuring impacts of the initiatives was beyond the scope of this project.
<i>Analysis:</i> Extent to which the city region is implementing the food waste priority ladder and where improvements can be made; assessment of the economic or nutritional value of the food wasted.	<p>Most relevant indicator for this sub-goal:</p> <ul style="list-style-type: none"> <li>Amount of food waste produced per capita in the Netherlands, in 2011 (89–210 kg – Soethoudt &amp; Timmermans, 2013).</li> </ul>

FOOD GOVERNANCE: MEDIUM TO HIGH	
IMPROVE HORIZONTAL AND VERTICAL GOVERNANCE AND PLANNING	
Food system policies and strategies exist and are integrated into other policies, planning processes and programme design.	The Municipality of Utrecht is a key stakeholder when it comes to food governance in the Utrecht Region – it is the largest city in the region and has a clear vision on healthy and sustainable food systems and food behaviour as part of its Public Health policy. The City of Utrecht also participates in the Dutch City Deal: Food on the Urban Agenda, together with another 11 Dutch cities and provincial and national governments. Through its ‘team food’ that is part of the Department of Public Health, Utrecht also participates in several international food projects and manifests (most notably, the Milan Urban Food Policy Pact and the <a href="#">EU Food Smart Cities project</a> ). The Municipality of Utrecht aims to support local and regional food as part of a broader Healthy Living strategy. The Municipality has also contributed to mapping initiatives of urban agriculture and mapping stakeholders, and is about to launch a multi-year programme where food and health have a central role ( <i>Diagnosis Voeding &amp; Gezondheid</i> ). This has, however, not (yet) led to the municipality developing a stand-alone or overarching food system policy and strategy.
<i>Analysis:</i> Opportunities to integrate food into more policies, strategies and plans.	<p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>Presence of an active municipal government body for advisory and decision making on food policies and programmes (there is a ‘team food’ in the Department of Public Health);</li> <li>Presence of an urban food policy or strategy and/or action plans (not in 2017);</li> <li>Food integrated in other public policies (food is a clear part of the Public Health Policy in the City of Utrecht);</li> <li>Existence of food system data collection, analysis and use at the level of the city to inform policy making (data on food behaviour is collected, also data on urban agriculture).</li> </ul>

FOOD GOVERNANCE: MEDIUM TO HIGH	
IMPROVE HORIZONTAL AND VERTICAL GOVERNANCE AND PLANNING	
	<p>The Municipality of Utrecht, and specifically the 'team food', is actively looking to establish cross-jurisdictional relations on the theme of food, through the U10 network. In addition, within the municipal structure, the team is aiming for cross-sectoral cooperation. The Municipality, through participation in meetings, contributes to an informal Regional Food Network (a network that was informally initiated by a group of people that aim to connect people that work on regional food and food-related themes). The Municipality actively supported multi-stakeholder discussions through the Food Smart Cities Programmes. In the past Utrecht was active in the <i>Stedennetwerk Stadslandbouw</i> (City Network Urban Agriculture).</p>
<p>Participatory governance structures are cross-jurisdictional, cross-sectorial and multi-stakeholder.</p> <p><i>Analysis:</i> Degree and efficiency of participation of different stakeholders in city region food system policy and planning; opportunities for improvements.</p>	<p>The Municipality promotes a process of co-creation in which it will facilitate and stimulate, but not take the lead. That role should be taken by other actors in society.</p> <p>Most relevant <b>indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Cross-jurisdictional collaboration on food (food is discussed as one of the topics in the U10 network);</li> <li>• Presence of an active multi-stakeholder food policy and planning structure, e.g. food policy councils; food partnerships; and food coalitions (The Municipality of Utrecht participates in different multi-stakeholder networks, but does not lead).</li> </ul> <p>Other potential indicators:</p> <ul style="list-style-type: none"> <li>• Number (and type) of different municipal departments/sectors participating;</li> <li>• Number (and type) of other stakeholders and levels of government engaged in collaborations.</li> <li>• Number (and type) of meetings held;</li> <li>• Number of staff engaged in coordination;</li> <li>• Amount of budget available;</li> <li>• Number (and type) of programmatic collaborations/actions/initiatives taken.</li> </ul>
<p>Participatory governance structures enhance transparency, ownership and co-investment.</p>	<p>There is strong interest from many stakeholders to participate in multi-stakeholder platforms, although several stakeholders caution about the need to ensure results and learn from earlier experiences with multi-stakeholder networks (e.g. discussion overload).</p>
<p><i>Analysis:</i> Information flows, participation gaps, capacity gaps, potential for improvements.</p>	<p>Potential <b>indicators</b>:</p> <ul style="list-style-type: none"> <li>• Number (and type) of other stakeholders and levels of government engaged in collaborations;</li> <li>• Number (and type) of meetings held;</li> <li>• Number of staff engaged in coordination;</li> <li>• Amount of budget available;</li> <li>• Number (and type) of programmatic collaborations/actions/initiatives taken.</li> </ul>

VULNERABILITY AND RESILIENCE: HIGH LEVELS OF VULNERABILITY	
REDUCE VULNERABILITY AND INCREASE RESILIENCE	
<p>There is increased capacity to deal with shocks that impact on the food system (economic, climate change, disaster).</p>	<p>Considerations about the vulnerability and resilience of the Utrecht Region Food System are not (yet) part of the agenda. Specific aspects of vulnerability do feature on the (urban) agenda in the Netherlands: the vulnerability of specific branches of agriculture; the potential effects of intensive livestock farming on human health; consumption and overweight; and loss of biodiversity. In 2013, the Dutch government called for an analysis on the vulnerability of the Dutch food system to external threats. It is not clear if, and to what extent, this was included in further policy and programming.</p>
<p><i>Analysis:</i> Assessment of the current vulnerabilities and areas for improvements.</p>	<p>Potential indicators:</p> <ul style="list-style-type: none"> <li>• Existence of a food supply emergency/food resilience management plan in the city (in response to disaster, socio-economic shocks, etc.) based on vulnerability assessment (not existent in 2017);</li> <li>• Number of households living in “food deserts” (no data).</li> </ul>
<p>The agricultural resource base is protected and lessens dependence on distant food supply sources.</p>	<p>The agricultural resource base in the Utrecht Region is declining and under threat from urban growth. The number of farms is decreasing. Agricultural land prices are increasing and threaten economic farm sustainability. There is no specific regional policy to protect the agricultural resource base (except for the protections of some historical sites and garden landscapes such as Amelisseweerd) and to reduce dependency on more distant food supply sources. Food consumption is largely de-linked from food production in the region. As part of a Provincial and National Policy, there is support for farmers marketing high-value products, but this policy does not seek to promote self-sufficiency, but rather income generation and promotion of rural livelihoods.</p>
<p><i>Analysis:</i> Amount of land successfully safeguarded for city region food production.</p>	<p><b>Indicators</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Area of agricultural land in the region;</li> <li>• Prices of agricultural land;</li> <li>• Number of farms in the region (22 percent decrease from 2011–2016 – CBS, 2016);</li> <li>• Degree of self-sufficiency (estimated to be less than 10 percent in 2017).</li> </ul>
<p>Urban planning processes include food security and resilience.</p>	<p>The Municipality of Utrecht has a strong focus on healthy urban living. The city is working on including food in the health advising system for urban planning, with a focus on a healthy and sustainable “food environment”. Regional urban planning does not (yet) have a clear consideration for the food system. Non-food services provided by agriculture become more important: recreation, education, environmental services and energy services.</p>
<p><i>Analysis:</i> Assessment of the current vulnerabilities and areas for improvement.</p>	<p><b>Indicator</b> for this sub-goal:</p> <ul style="list-style-type: none"> <li>• Food system concerns are included in urban planning (partially).</li> </ul>



RUAF Foundation and FAO partnered to support a City Region Food System Assessment and Planning process in seven cities selected from across the globe– Lusaka and Kitwe (Zambia), Colombo (Sri Lanka), Medellín (Colombia), Quito (Ecuador), Toronto (Canada) and Utrecht (The Netherlands). A synthesis report on each city, as presented here, describes the experiences from each city in terms of planning and informed decision-making, prioritising investments and design of sustainable food policies and strategies to improve the resilience and sustainability of the entire food system.

This entire series of 7 reports will provide a full overview of the experience of those cities, and culminated in a set of tools to support city regions to assess and better plan their food system around the world. For a detailed description of the CRFS assessment process, city examples, tools and project outputs, please visit the [FAO Food for the Cities Programme](#) and [RUAF CityFoodTools](#) project websites.

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