

A detailed still life painting featuring a large, ornate copper teapot with a lid and handle on the left. To its right and in front are various fresh vegetables, including several carrots, a leek, a head of cauliflower, and some onions. The scene is set against a dark, textured background, with the lighting highlighting the textures of the copper and the freshness of the produce.

# AESOP sustainable foodplanning

Thursday April 1, 2021

Roxana Triboi

Jeroen de Vries

*LE:NOTRE Institute*

*AESOP sfp group*

Introduction

Challenges

Food resilience

Food system mapping

*The presentations of this session  
will be recorded, if you do not  
want to appear in the recording  
you can switch of your camera*

**LE:NOTRE Institute**  
*Linking landscape education, research and innovative practice*

# Mission of AESOP's SFP group

Bringing together academics, policy-makers and practitioners from an international audience

<https://aesopsfp.wordpress.com/>

Providing a forum for discussion and development of sustainable food systems.



1

# Overview of the seminar sessions



# Sustainable Food Planning Spring Seminar 2021

Intro, Food Systems, Mapping  
*Question & A session Assignment*  
City-Region Foodsystems and  
Urban Foodscapes  
Spatial dimension of Sustainable  
Farming Systems  
Agroecological Urbanism I  
Agroecological Urbanism II  
Governance and networks  
Research: methods and cases

Online  
Sessions

April  
1

April  
8

April  
15

April  
22

April  
29

May  
6

May  
12

May  
20

Wednesday

Assignment

Food System Mapping, Challenge and Approach



Presentations  
assignment

Participants who take part in active mode define their food system, map the main elements and processes, define the main challenge that they may address and formulate an approach



# AESOP – sfp - partnership

- Presenters and countries





# **CITY-REGION FOOD SYSTEMS AND URBAN FOODSCAPES**

**April 15**

**Dr. Coline Perrin**

INRAE - Umr Innovation, Montpellier, France

**Damien Conaré**

UNESCO Chair on World Food System, Montpellier SupAgro

Sustainable food policies for cities

Challenges for the city-region food systems

Case-study of the 'Surfood Foodscape'  
research

Effects of urban food environment on food  
styles and their sustainability in Montpellier



# SPATIAL DIMENSION OF SUSTAINABLE FARMING SYSTEMS: AGROECOLOGICAL PLANNING IN TIMES OF UNCERTAINTY

April 22

**Dr. Marian Simón-Rojo** Department of Urban and Regional Planning, Universidad Politecnica de Madrid.

**Daniel López-García PhD in Agroecology** Spanish Network of Cities for Agroecology

Agroecological renewal in the agri-food sector.

Urban farming & sustainable agro-environmental farming systems

Case studies functions and roles in different areas with relations between rural and urban areas

The Spanish Network of Agroecological Cities as a powerful tool for change

# AGROECOLOGICAL URBANISM

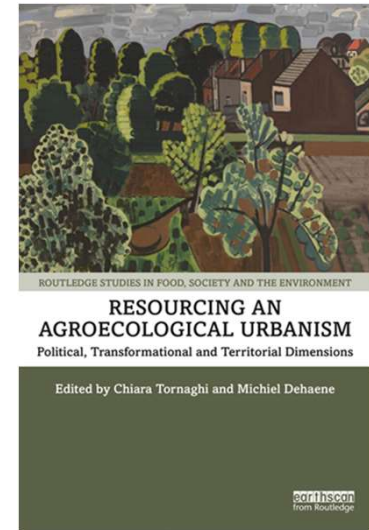
April 29 and May 6

**Chiara Tornaghi,**

Centre for Agroecology, Water and Resilience  
(CAWR), Coventry University

**Michiel Dehaene,**

Department of Architecture and Urban  
Planning, Ghent University



How can an agroecological perspective push the boundaries of sustainable food planning.

An agenda for agroecological urbanism, building on urban political ecology and feminist social reproduction informed critique of urbanism.

# **GOVERNANCE & DEVELOPING NETWORKS for AGROECOLOGY**

## **Wednesday May 12!**

**Jeroen de Vries**

LE:NOTRE Institute

**Piet Rombouts**

Agroforestry Networks of Brabant and Gelderland

Multi-level governance, strategies and policies

Integral policies for transformation

Role of Food Councils

Building networks for Agroforestry and  
connecting bottom up development with  
national policies.



# **SUSTAINBLE FOOD PLANNING RESEARCH**

**methods and case studies**

**May 20**

**Young Academics and Professionals Group  
of AESOP sfp**

Two case studies on research approaches and  
methods on sustainable food systems

2.

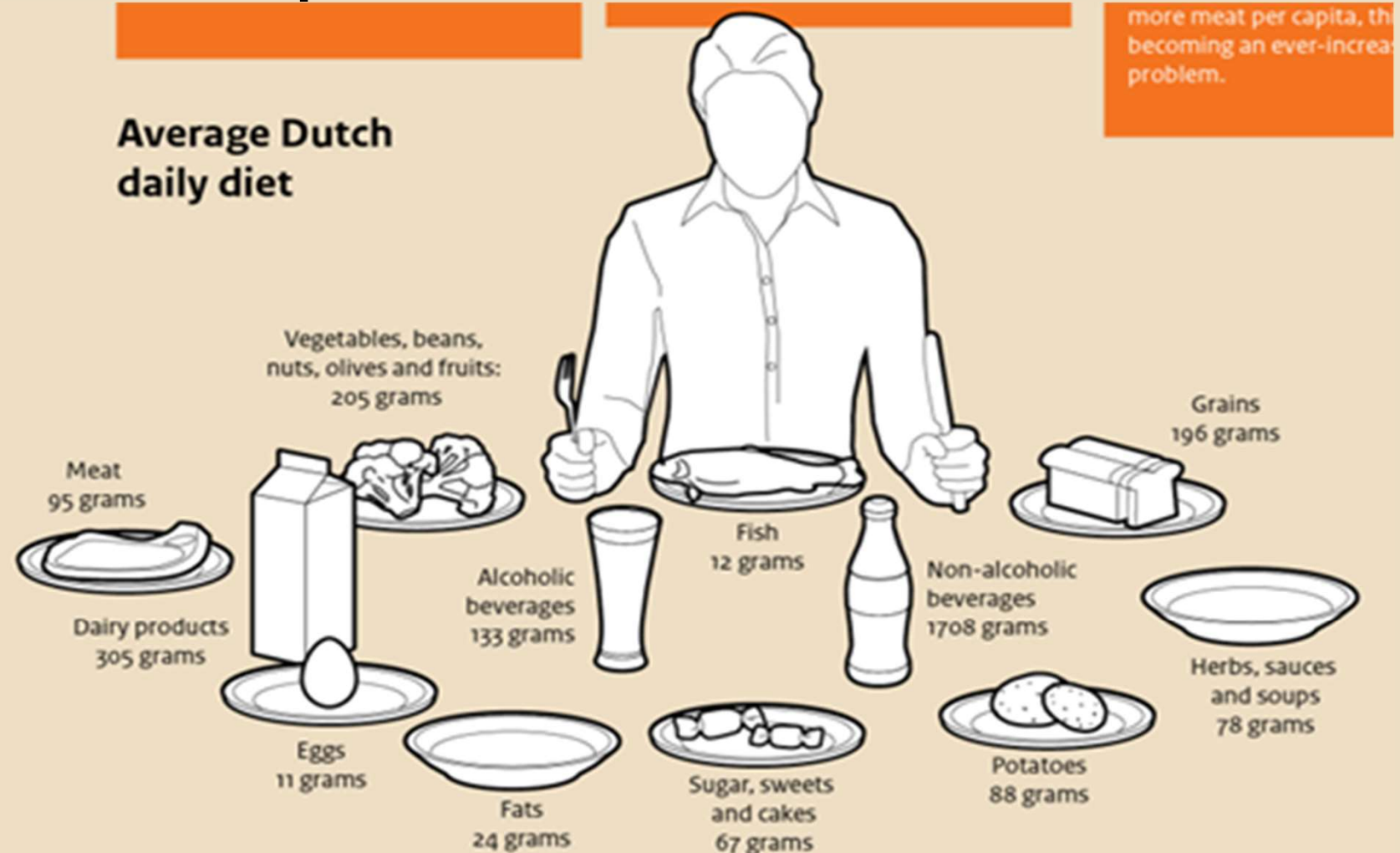
Today's seminar

# Today's seminar

- Overview of the aspects of sustainable food systems and the planning that aims to foster the development of these systems.
- Food system approach to resilience with examples from France and Eastern Europe
- Assignment mapping of local and regional food systems.



# What you eat defines the landscape and the environment



Source PBL, 2014





CSA, De Nieuwe Ronde at Wageningen, NL





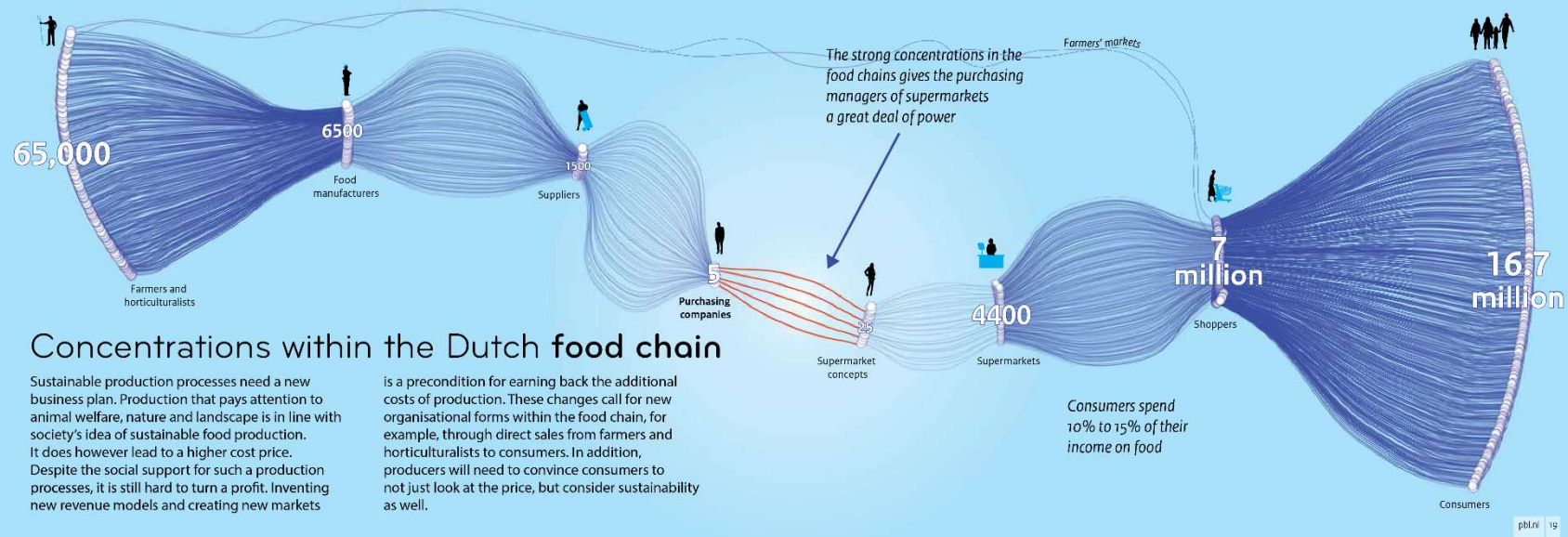
# OXFAM - NOVIB

Behind the brands, Food justice and the „Big 10“ food and beverage companies

Ripe for Change: R. Willoughby and T. Gore. (2018). Ripe for Change: Ending human suffering in supermarket supply chains.



# Concentration in the Dutch Food Chain

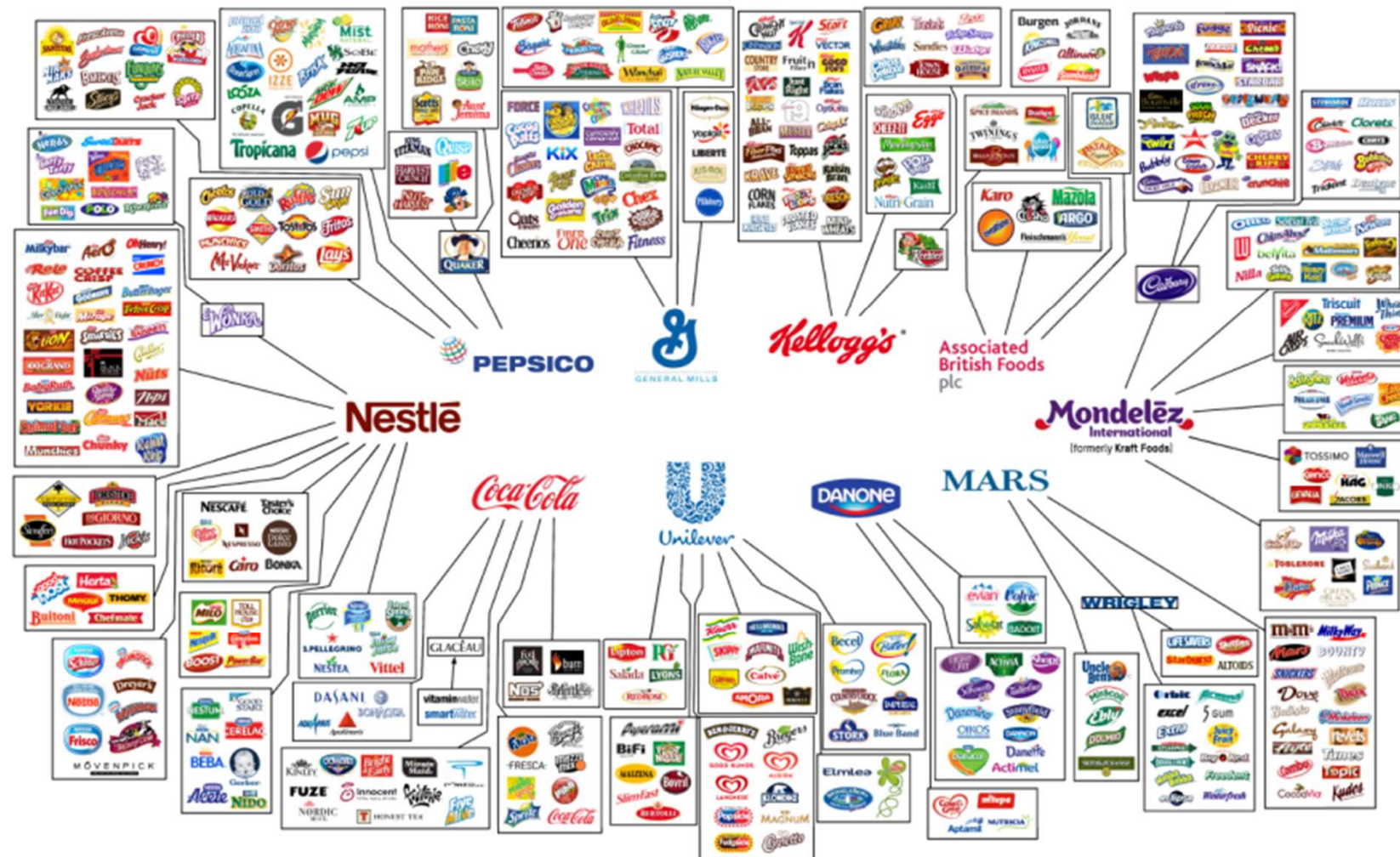


## Concentrations within the Dutch food chain

Sustainable production processes need a new business plan. Production that pays attention to animal welfare, nature and landscape is in line with society's idea of sustainable food production. It does however lead to a higher cost price. Despite the social support for such a production processes, it is still hard to turn a profit. Inventing new revenue models and creating new markets

is a precondition for earning back the additional costs of production. These changes call for new organisational forms within the food chain, for example, through direct sales from farmers and horticulturalists to consumers. In addition, producers will need to convince consumers to not just look at the price, but consider sustainability as well.

# Where does it come from? What is the social and environmental impact?

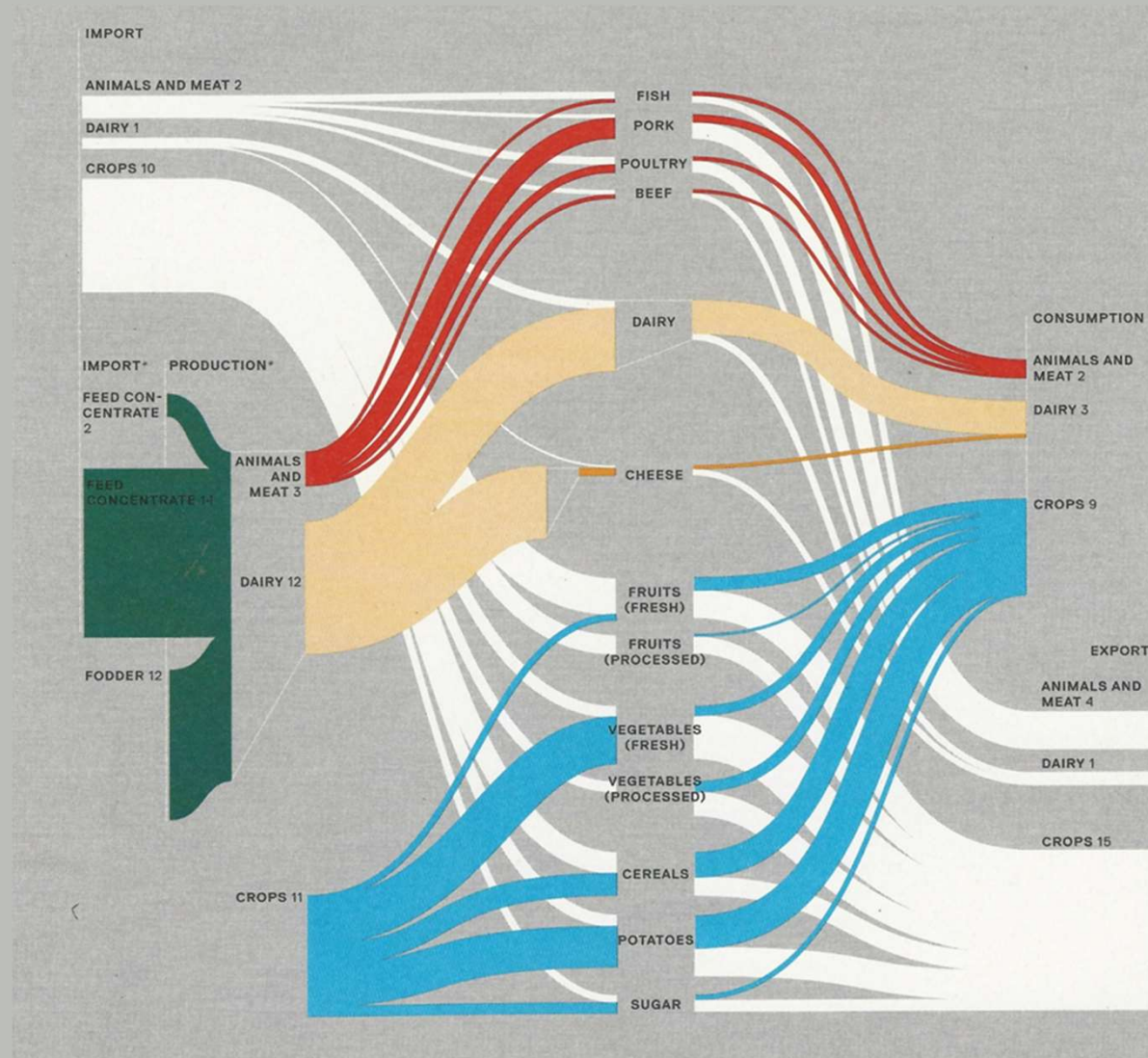


Source: Joki Gauthier for Oxfam 2012. For more information on this figure, and to see it online, visit <http://www.behindthebrands.org>

Source: OXFAM, 2013



# The Flows of Food in the NL



Import  
Production  
Export  
Consumption

*An open system  
with a major  
import and  
culture of animal  
feed*

Source: PBL, 2014

# ch **betereten**

Albert Heijn voor 5e keer meest duurzame supermarkt



Door herbruikbare verszakjes te gebruiken, kunnen we 243.000 kilo plastic per jaar besparen.



Van alle supermarkten heeft Albert Heijn de grootste keuze in vega en vegan producten, van ontbijt en lunch tot en met het diner.



Albert Heijn is overgestapt op 100% Nederlandse windenergie.



Albert Heijn heeft de plastic emmertjes voor groente en fruit verruimd voor verpakkingen met een dunne folie. Dat scheelt jaarlijks 235.000 kilo plastic.

## Albert Heijn stopt met plastic zakjes bij groente en fruit

Albert Heijn is voor het 5de jaar op rij verkozen tot duurzaamste supermarkt van Nederland. Dat is het resultaat van de constante verduurzaming van het assortiment, maar ook van bewuste keuzes als het gaat om voedselverspilling, plastic-reductie en CO<sub>2</sub>-uitstoot.

**D**eze week hebben Nederlandse consumenten Albert Heijn opnieuw verkozen tot duurzaamste supermarkt. 'Mensen hebben duidelijk waardering voor Albert Heijns duurzaamheidswerk', zegt Annemarijke Tillemans van de Sustainable Brand Index, het grootste merkenonderzoek naar duurzaamheid in Europa. Uit de donderdag gepresenteerde resultaten blijkt dat consumenten enthousiast zijn over de verdere verduurzaming van het assortiment. 'Denk aan het aanbod van biologische, fair trade, vegetarische en veganistische producten', zegt Tillemans. 'Maar ook voedselverspilling en plastic-reductie zijn thema's waarbij Albert Heijn verantwoordelijkheid toont. Tegelijkertijd

### De CO<sub>2</sub>-uitstoot van de winkels is sinds 2008 gehalveerd

blijven mensen kritisch en zien ze ruimte voor verdere verbetering.'

#### Minder plastic

Bij Albert Heijn zijn we blij dat consumenten onze inspanningen zo waarderen. We vinden het belangrijk dat het eten waarvan we zo genieten is geproduceerd met aandacht voor mens, dier en milieu. Dat is niet altijd eenvoudig, maar stap voor stap gaan we vooruit. Een voorbeeld van zo'n stap is dat we gaan stoppen met wegwerptasjes op de groente en fruitafdeling. We vragen klanten om samen met ons de hoeveelheid plastic te verminderen door voortaan herbruikbare verszakjes te gebruiken. Eind 2021 zijn de plastic zakjes in alle winkels verdwenen. Dat scheelt 130 miljoen zakjes, oftewel 243.000 kilo plastic per jaar. Ook bij het thuisbezorgen van boodschappen pakken we het gebruik van tasjes aan. Er komt in de loop van dit jaar een retourstelsel, zodat klanten ze weer kunnen inleveren. Deze nieuwe stappen komen boven op de ruim 7 miljoen kilo verpakkingsmateriaal die Albert Heijn

afgelopen 3 jaar al heeft bespaard. Van salades in een dunne schaal tot dunne frisdrankflessen. En als het kan, bieden we groente en fruit helemaal onverpakt aan. Ook vervangen we op dit moment de emmertjes met snoepgroenten en deksel door een dunne bakje met een dunne toplaag in plaats van een deksel. We kijken dus altijd waar het minder kan.

#### Verspilling voorkomen

Een ander actueel thema waarbij we bij Albert Heijn constant op zoek zijn naar oplossingen is voedselverspilling. Zo hebben onze meeste winkels dry misting, een watervernevingsstelsel dat groente en fruit langer vershoudt. En medewerkers op de broodafdeling gebruiken sinds kort een app die adviseert hoeveel brood er op een bepaald moment afgebakken moet worden. Dat blijkt een geweldig hulpmiddel om verspilling te voorkomen.

#### CO<sub>2</sub>-uitstoot gehalveerd

Ook het energieverbruik en de CO<sub>2</sub>-footprint

### We hebben ons vega(n) aanbod onlangs verdubbeld

### De afgelopen 3 jaar heeft Albert Heijn 7 miljoen kilo verpakkingsmateriaal bespaard

liggen bij Albert Heijn onder een vergrootglas. Driekwart van de winkels is van het gas af en er liggen zonnepanelen op distributiecentra, het hoofdkantoor en op tientallen winkels. Daardoor is de CO<sub>2</sub>-uitstoot van de winkels sinds 2008 met 50 procent afgenomen. Bovendien zijn we dit jaar volledig overgegaan op Nederlandse windenergie. Een andere manier waarop we – samen met onze klanten – de CO<sub>2</sub>-uitstoot kunnen terugbrengen, is vaker kiezen voor plantaardig en vegetarisch eten. Meer dan de helft van de Nederlanders is al flexitarier en daarom hebben wij ons vega(n) assortiment onlangs verdubbeld met 70 producten voor elk moment van de dag. Zo'n stap past helemaal in onze missie om beter eten bereikbaar te maken voor iedereen.



Meer weten over beter eten? Scan dan de QR-code.



\*Sustainable Brand Index™ is het grootste en meest toonaangevende merkenonderzoek in Europa op het gebied van duurzaamheid en merkontwikkeling. Ga voor meer informatie naar [www.sb-index.nl](http://www.sb-index.nl)

# PR campaigns

## Advertisement of supermarket in national papers

- The most sustainable supermarket
- Reduction of plastics
- 50% reduction of CO<sub>2</sub> emission since 2009
- Doubling the offer of Vegan meals

Source: NRC, March 28, 2021

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# Challenges for sustainable food planning



# CFP: Failure to put sustainable farming first



Source: Common Food Policy,  
IPES, 2019

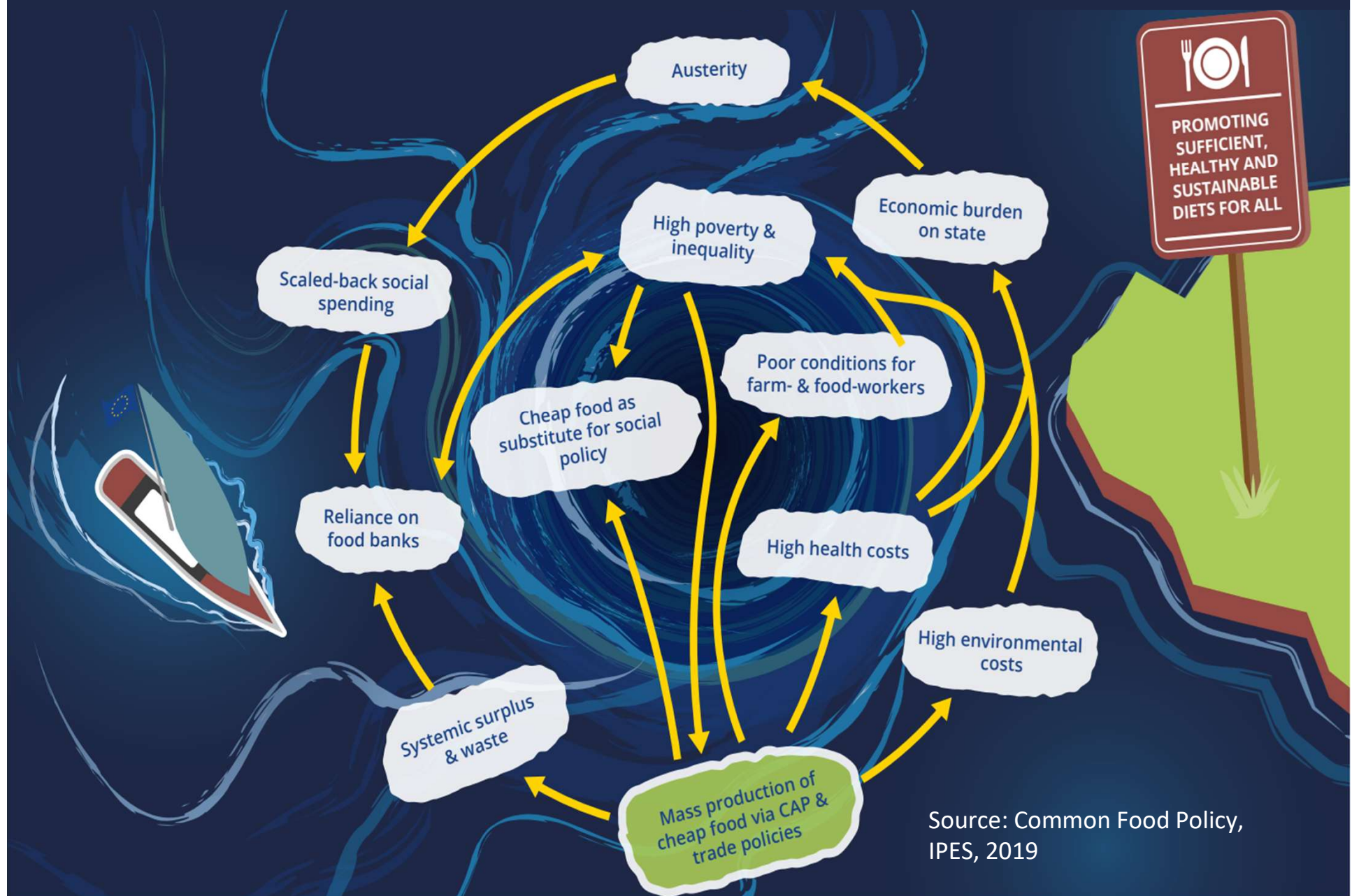


# CFP: Techno-Fixes that sideline the real solutions



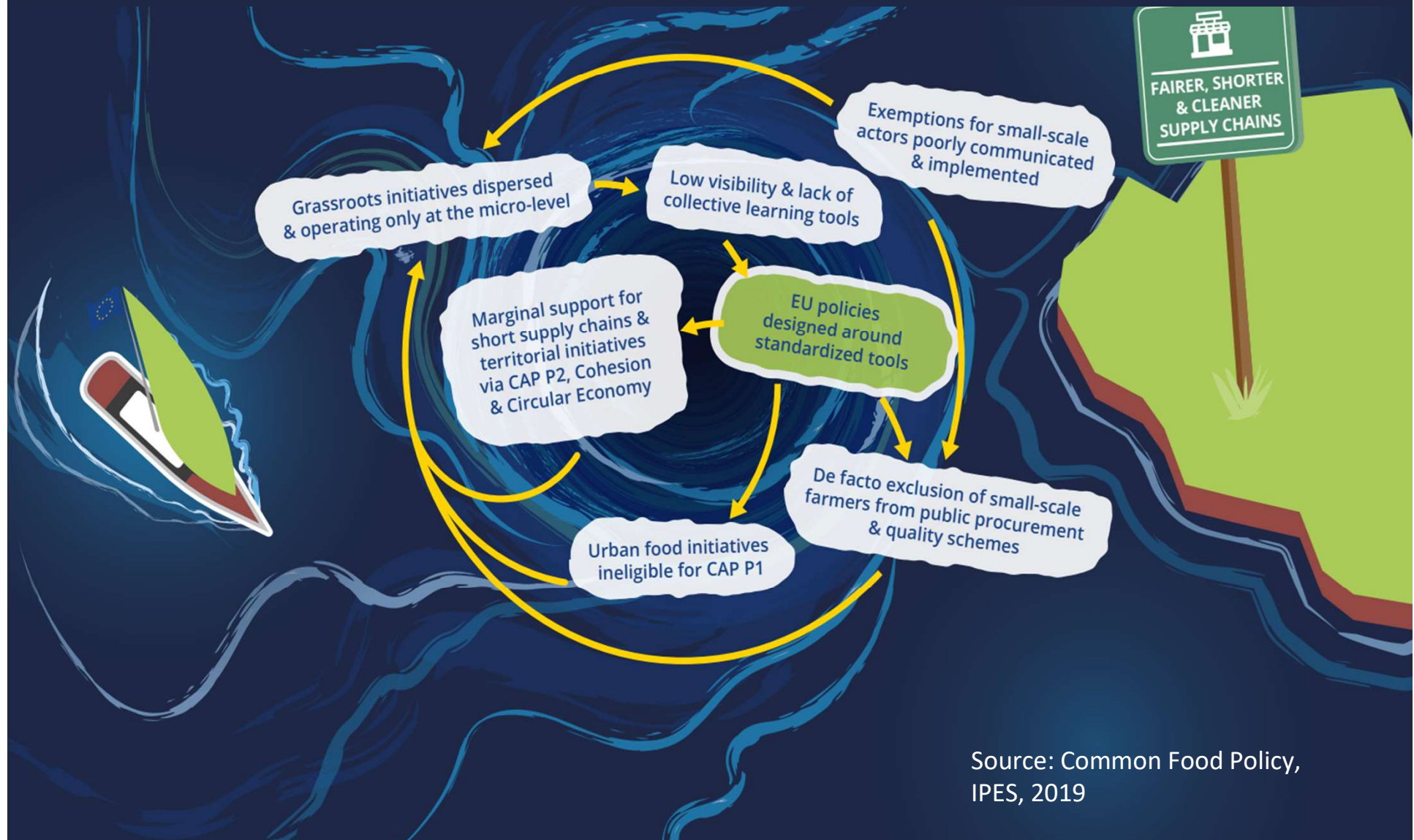
Source: Common Food Policy

# CFP: The hidden costs of cheap food





# CFP: The untapped potential of alternative food system initiatives



# CFP: Export orientation, a race to the bottom



# So how to approach this by governance, planning, design, and research?

1. ensuring access to land, water and healthy soils

2. rebuilding climate resilient, healthy agro-ecosystems

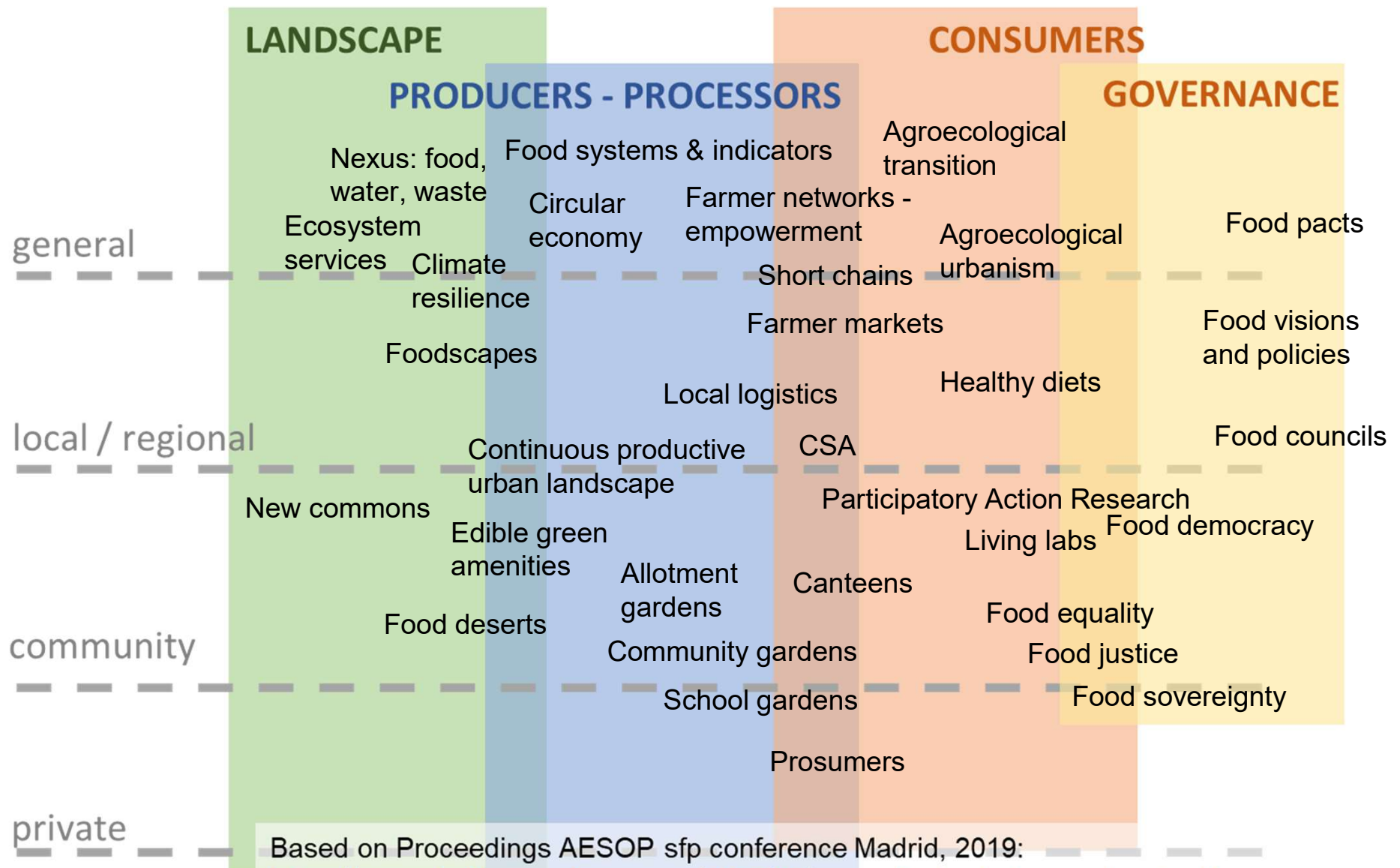
3. promoting sustainable, healthy diets for all

4. fairer, shorter and cleaner supply chains

5. putting trade in the service of sustainable development



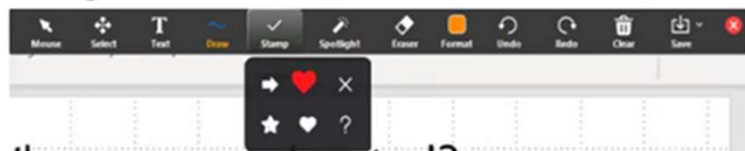
# Aspects of the food system



Based on Proceedings AESOP sfp conference Madrid, 2019:

[https://aesopsfp.files.wordpress.com/2020/02/aesop-sfp\\_bookofproceedings0.pdf](https://aesopsfp.files.wordpress.com/2020/02/aesop-sfp_bookofproceedings0.pdf)

# What are your (future) roles in the system?



Food  
community  
member



Producer,  
farmer,  
market  
gardener

Researcher

Food Activist

Prosumer

Governor,  
council member,  
policy maker

Other....

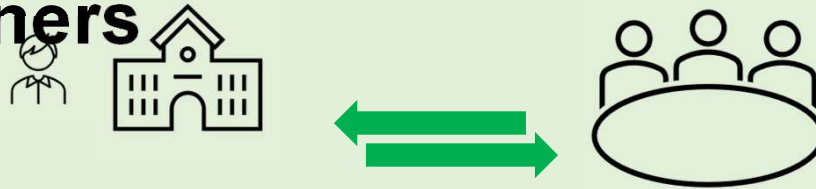
Food processor,  
baker, miller,...



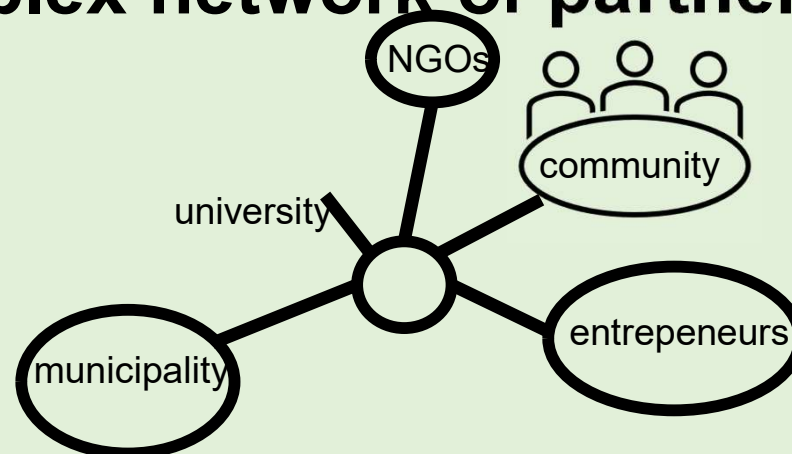


# Living labs & participatory action

- ranging from informal collaboration of two partners



- to an institutional organisation with a complex network of partners.



# Characteristics of Living Labs processes

- **Participatory Action Research (PAR)** involves active methods for engaging the community in the lab and in the food system approach. Important to sufficiently empower users for co-creating into open development environments
- **CoDesign** - working together with the community, bringing stakeholders in on key points of the design process, to increase the functionality and sustainability of the foodscape.
- **Community Feedback** - methods and solutions can be tested for gaining insightful critique from stakeholders, to understand the effectiveness of the plans.

# Dutch finalist of the Rockefeller Food System Vision Prize

## RE-ROOTING THE DUTCH FOOD SYSTEM

FROM MORE TO BETTER

### Our team



### Our Systems Approach



### Our vision

### Our Foodscapes



### Our stakeholders

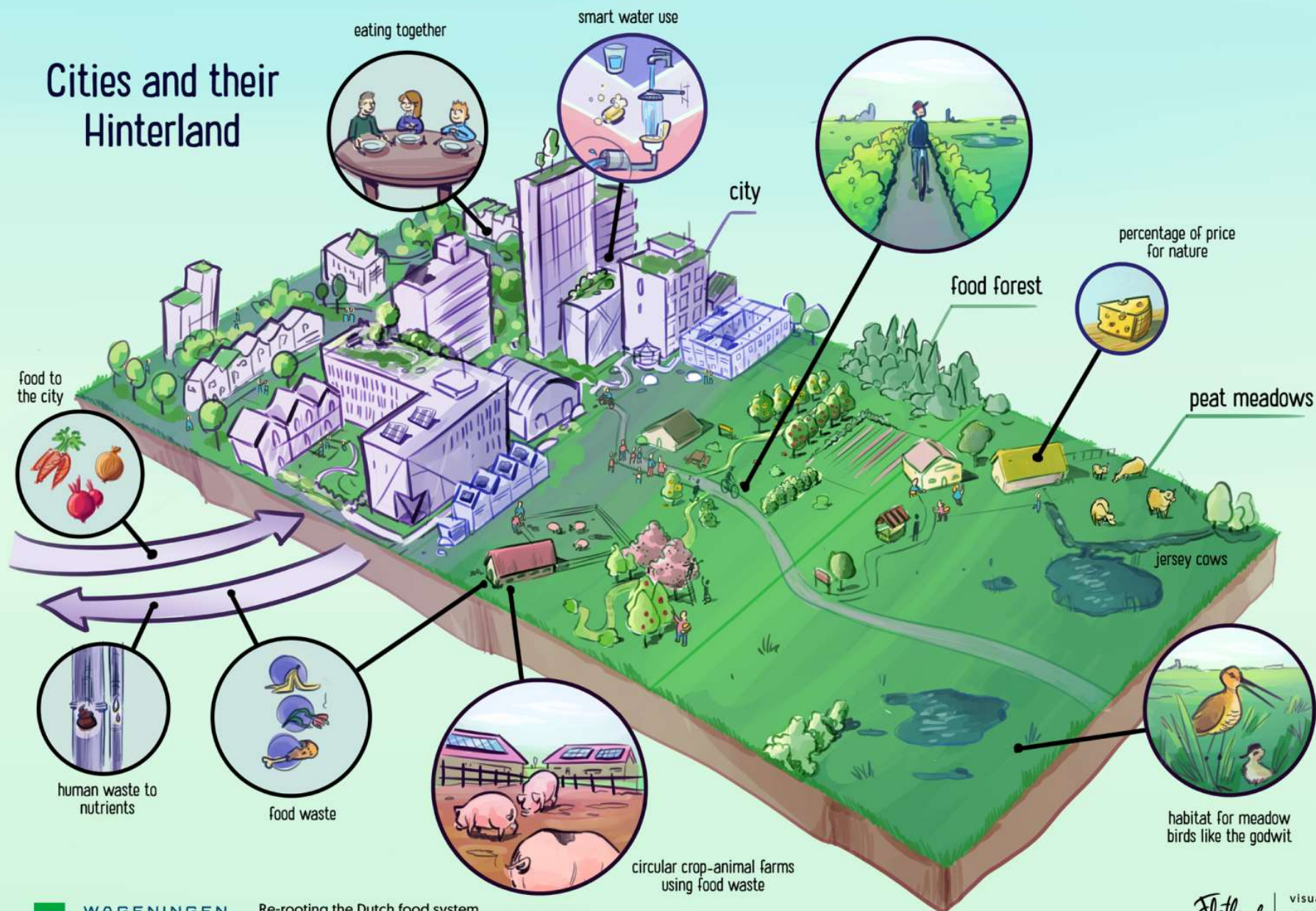


<https://www.rockefellerfoundation.org/meet-the-top-visionaries-food-system-vision-prize/>

Bibliography

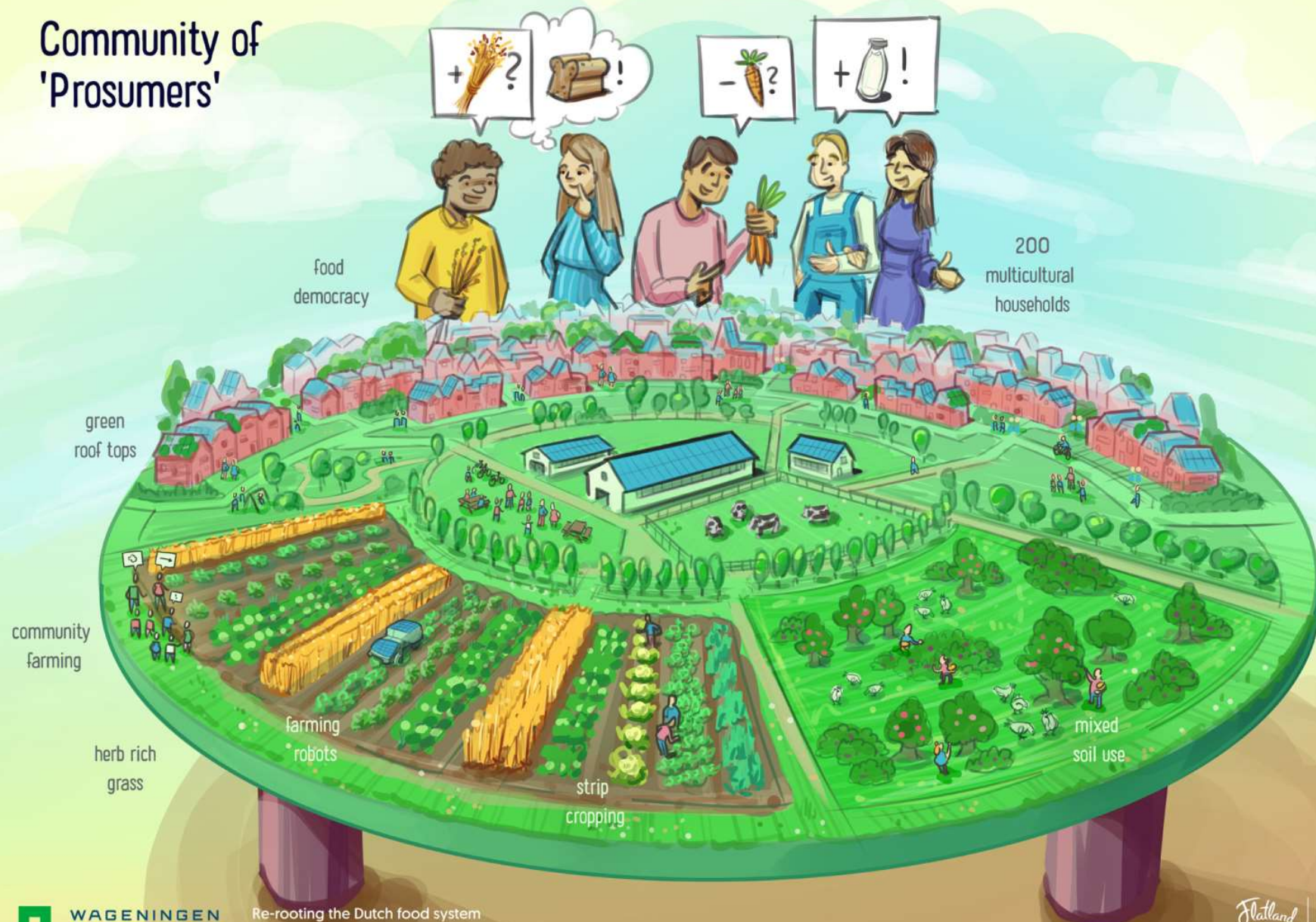


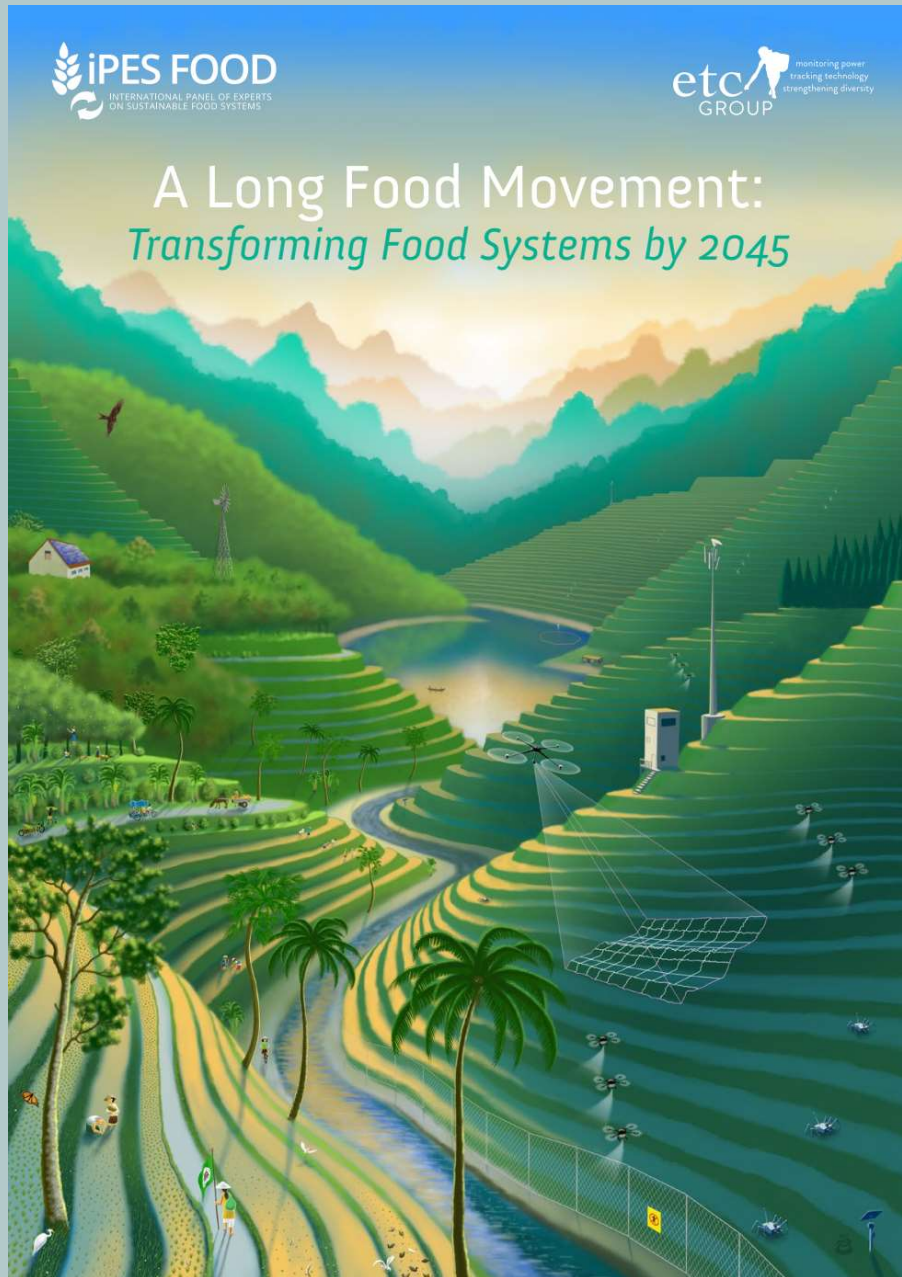
# Cities and their Hinterland





# Community of 'Prosumers'





## Two scenarios

Looking ahead to 2045:  
Agribusiness-as-Usual

Looking ahead to 2045:  
Civil society as Unusual

## Four pathways

Rooting food systems in  
diversity, agroecology, and  
human rights

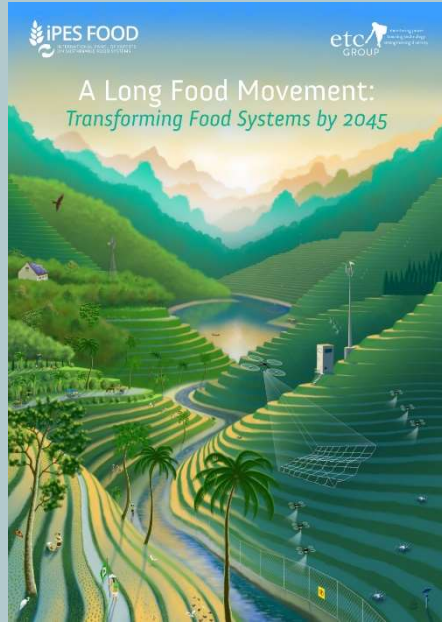
Transforming governance  
structures

Shifting financial flows

Rethinking the modalities  
of civil society collaboration

<http://www.ipes-food.org/pages/LongFoodMovement>





Empowering civil society

Expanding food movements

Organising food councils with citizen's participation

Building new partnerships for system transformation

Placing food security over trade

Reforming subsidies of the Common Agriculture Policy to support ecosystem services

More taxing on junk food and less tax on healthy, sustainable produced food

# 5.

# Resilient Food Systems

Components and indicators for resilience

Planned resilience in France

Spontaneous resilience of informal systems in Eastern Europe

# Food system approach

A way to improve food systems' outcomes and sustainability, in order to deal with competing priorities, and address the complex relationships that exist between components of food systems (Ericksen et al., 2010; Ingram et al., 2010; Garnett et al., 2013).

Food systems are social–ecological systems, formed of biophysical and social factors linked through feedback mechanisms (Berkes et al., 2003; Ericksen, 2008b).

They comprise, at a minimum, the activities involved in food production, processing and packaging, distribution and retail, and consumption (Ericksen, 2008a).

These activities encompass **social, economic, political, institutional** and **environmental processes** and **dimensions**, referred to as scales.

The processes play out at different levels, that is, at different positions on a scale (Cash et al., 2006).

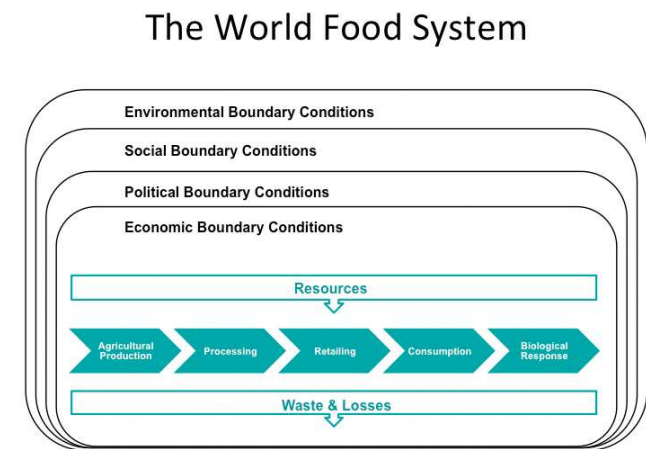


Diagram of the complexity of the World Food System.  
(Courtesy of Michelle Grant, World Food System Centre, ETH Zurich)

# Resilient Food Systems

**What is resilience?** a concept marked by ambiguity

*Resilience* is the ability to prepare for, withstand, and recover from a crisis or disruption.

*A resilient food system* is able to withstand and recover from disruptions in a way that ensures a sufficient supply of acceptable and accessible food for all.  
the **ecological perspective** (different from engineering perspective)

- living systems, which are understood as complex, nonlinear and adaptive
- allows for multiple equilibria to exist, and thus resilience could imply not so much a return to the original equilibrium but a dynamic transition to an alternative equilibrium - or even a point outside of existing equilibria
- A resilient social-ecological system has a greater capacity to avoid unwelcome surprises (regime shifts) in the face of external disturbances, and so has a greater capacity to continue to provide us with the goods and services that support our quality of life.
- In complex systems as the system of provision for food, attention is directed to the potential for uncertainty, change and cross-scale interactions (for example, between different geographic, institutional or temporal scales).
- **3 'modes' of resilience: absorptive, adaptive and transformative**



Fig. 1. Resilience and sustainability as complementary concepts.

Source: *Food system resilience: Defining the concept*



# Resilient Food Systems

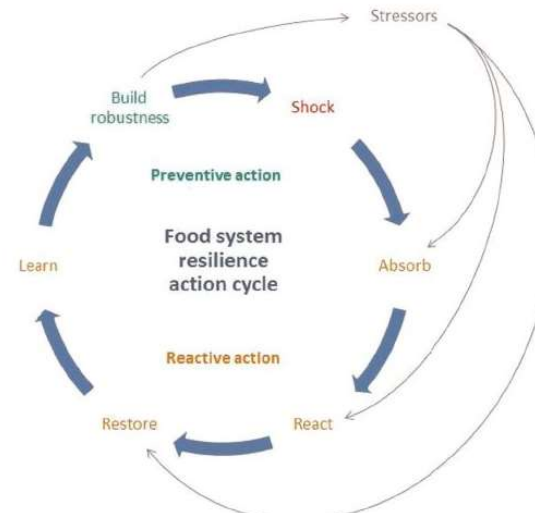
**Food system resilience** - the capacity to provide food security over time and despite disturbances

The food system is defined by its **dynamic properties**, which involve **information flows** between the **system** and its **components** and between the **system** and the **external environment** beyond the system boundary.

The food system resilience action cycle consists not only of **reactive actions** (absorb, react, restore, learn) but also of **preventive actions** (build robustness).

Preventive actions can also address **stressors**, which affect the reactive capacities of the food system in response to a shock.

Each action is enabled by a capacity of the food system (i.e. capacity to absorb, flexibility and rapidity, resourcefulness and adaptability, learning capacity, capacity to withstand).



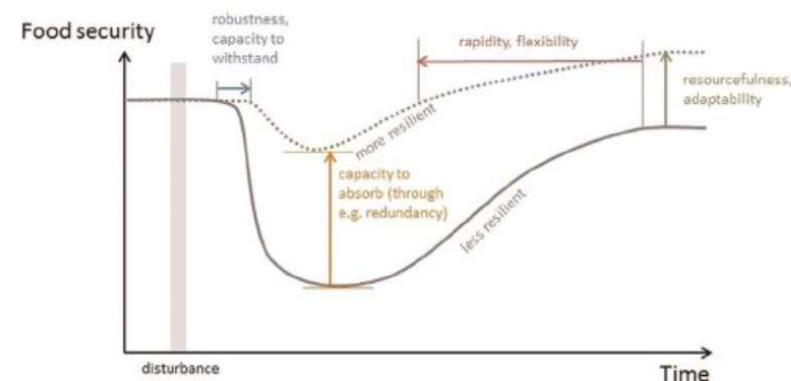
*complex cross-scale and cross-level interactions*  
**The basis of the food system resilience action cycle**

*Author: Birgit Kopainsky*

# Resilient Food Systems

## Components:

1. **robustness**, or the capacity to withstand the disturbance in the first place before any food security is lost (*Anderies et al., 2013*);
2. **redundancy**, or the extent to which elements of the system are replaceable, affecting the capacity to absorb the perturbing effect of the disturbance and avoid as much food insecurity as possible;
3. **flexibility** and thus rapidity (or food system reactivity) with which the food system is able to recover any lost food security;
4. **resourcefulness** and **adaptability**, which determines just how much of the lost food security is recovered.



# Resilient Food Systems

**Tools of enhancing systems resilience:** (Darnhofer et al., 2010a; Darnhofer et al., 2010b; Cabell and Oelofse, 2012; Scheffer et al., 2012; Engle et al., 2013)

- Diversity
- Redundancy
- Buffering capacity,
- Modularity
- Capital (economic, financial, environmental, social, physical)
- Exposure to disturbances
- Profitability
- Self-organization capacity
- Governance capacity
- Transformability
- Transparency
- Learning capacity

as well as the existence of an appropriate **institutional framework** with *equitable rights, entitlements and decision-making processes* (Tyler and Moench, 2012; IISD, 2013).

# Resilient Food Systems

## Levels of approaching food resilience

-**National or regional food systems**, which comprise multiple value chains contributing to food security and other outcomes of importance in the region. This perspective is of particular interest to national policy-makers and governments, concerned about the food security of their citizens.

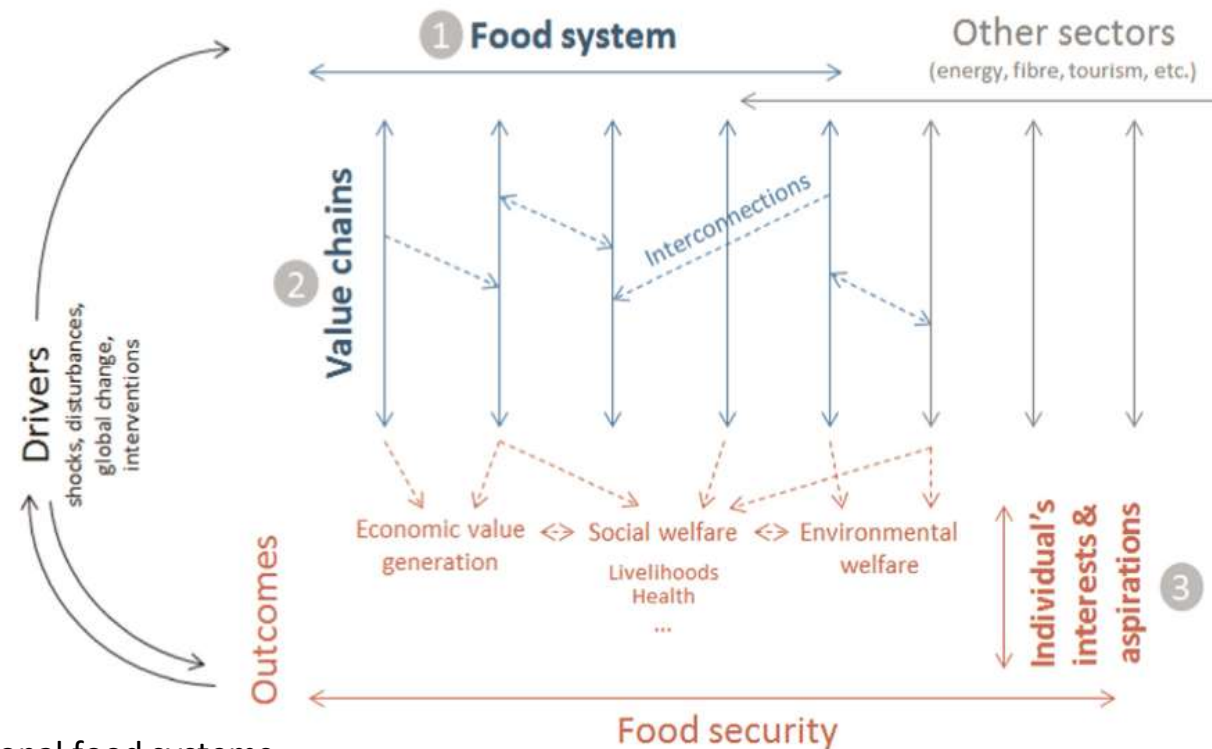
-**Individual food value chains** ranging from local to global levels, which form the national and regional food systems, and together lead to the diverse outcomes of food systems. For ex-ample, looking at individual value chains of agricultural commodities. This perspective is of particular interest to individual value chain actors such as industries and retailers, for whom the value chain is generally a well-known management level.

-**Individual's perspective in the value chain**, and the specific outcomes that concern them: this includes smallholder livelihoods, household food security, consumers' health etc. This entry point to resilience assessments has most often been used in existing studies of resilience of components within food systems.



# Resilient Food Systems

## Food systems across multiple levels



1. national or regional food systems
2. composed of value chains ranging from the local to the global spatial scale
3. these lead to outcomes affecting various stakeholders at the scales of businesses, communities, households and individuals for example

# Resilient Food Systems

## Planned resilience

### **The Territorial Food Strategies /« Projets Alimentaires Territoriaux (PAT) »**

initiative from the French 'Future of agriculture, food and forest law' from 13th October 2014. TFS must integrate the goals of the French law 'EGALIM' from 2018 on canteen supplying, fight against food waste and for food justice.

- develop sustainable agriculture and food quality on these territories in order to contribute to the consolidation of territorialized industries and build a territorialized food system thought around the economic, environmental and social dimensions of sustainable development.
- unite and federate different players of a territory, in order to build a strategy around food and its impacts. The planning can regroup producers, development agencies, local authorities, companies and cooperatives, members of society and of social economy, scientists, etc. The leaders are generally local authorities, and their goals are based on a shared diagnosis of agriculture and territorial nutrition.

#### **Typologies:**

- support of a production and local industries answering the territorial food demand
- their objective considers different food and nutrition dimensions.



80% of departments have at least one TFS supported by the state

# Resilient Food Systems

## PAT Grand Clermont PNR Livradois-Forez

- **coordinate and structure local food initiatives** and contribute to the development of local, sustainable, quality food accessible to all
- Build on **dialogue and co-development**
- Developed in an **iterative and collaborative way**
- Alternating sequences of restitution and sharing of data (diagnosis, prospective), and sequences of debate, open to the actors of the territory.

**The participatory approach** consisted first of all in **mobilizing actors** from various structures, whether in terms of status (institutions, associations, companies, etc.), geographical location (urban, rural), area of action ( land, production, processing, distribution, health, education, etc.) or even point of view.



### **A territory that brings together:**

- **268 municipalities,**
- **511,000 inhabitants,**
- **153,000 ha of UAA and**
- **contrasting agriculture.**

<b>250</b> structures involved	<b>100</b> contributions for the action plan	<b>6</b> thematic workshops (land, production, transformation, distribution, canteens, consumption...)
<b>4</b> farm workshops with local producers	<b>3</b> general sessions	<b>6</b> on site visit of innovative projects



# Resilient Food Systems

## **Strategic orientations**

1. Preserve and remobilize agricultural land in terms of surface area and quality to maintain agri-local activity
2. Support the development of practices in favor of environmentally friendly and profitable agriculture.
3. Strengthen and create sectors to promote food self-sufficiency in the territory of today and tomorrow.
4. Develop a culture of healthy, local and responsible consumption.
5. Facilitate access to local products.
6. Promote the development of sustainable, healthy and local food in collective catering.

# Resilient Food Systems

The **quantified objectives** for 2050:

- **Divide by 2 the rate of land artificialization**
- Divide by 2 the rate of disappearance of natural meadows
- **Maintain the number of agricultural and agro-food jobs**
- Introduce 20% protein crops and legumes in rotations to respond to changes in the diet and animal nutrition (+ 10,000 hectares)
- Aim for **50% food autonomy in fruits and vegetables** (+ 4,000 hectares or + 125ha / year)
- Aim for a diet close to the recommendations of the PNNS
- Guarantee at least € 2 of raw products cost per meal in school catering
- Offer **50% local, organic or quality products** in collective catering (including 20% organic products)
- **Divide by 2 the losses and waste** throughout the food chain
- **Divide greenhouse gas emissions** from agriculture **by 2**
- Achieve 20% of agricultural areas dedicated to organic farming

# Resilient Food Systems

The limits of TFS:

- **Territorial Food Strategies, which only involve institutions and not sufficiently citizens and economic actors.**
- The 101 Territorial Food Strategies (PAT) are **optional, poorly funded, fragile.**
- Land preservation, the establishment of numerous and diversified farms in all territories need strong policies that TFS ignores
- TFS doesn't guarantee regions the possibility of regaining their food autonomy because of lack of support for constant development.



# Resilient Food Systems

## CRATER - diagnosis of the territory's food resilience

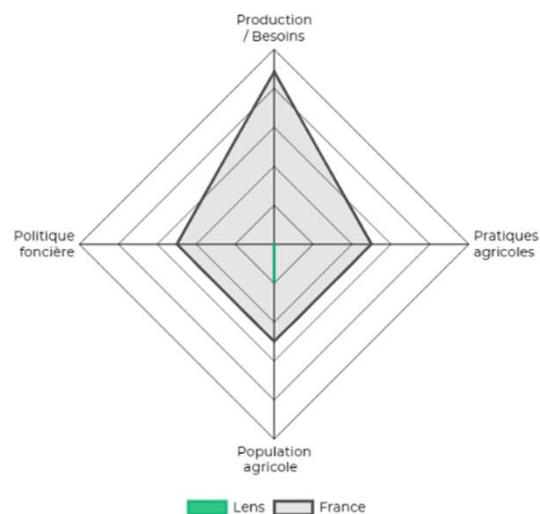
Diagnostic du système alimentaire ⓘ

LENS

31,415  
habitants

1,169  
ha

0  
ha agricoles



### PRODUCTION / BESOINS



Production **nettement insuffisante** pour couvrir les besoins

Détails et leviers d'action

0/10

### PRATIQUES AGRICOLES



Part de SAU en BIO quasi nulle et pratiques agricoles **très préjudiciables** à la biodiversité

Détails et leviers d'action

0/10

### POPULATION AGRICOLE



Population agricole **stable** mais **en proportion plus faible que la moyenne française**

Détails et leviers d'action

2/10

### POLITIQUE FONCIÈRE



La surface agricole par habitant **est trop faible** et l'objectif ZAN **n'a pas été atteint** entre 2011 et 2016

Détails et leviers d'action

0/10



# Resilient Food Systems

## Spontaneous resilience

**Organising  
*agricultural and food  
systems*  
in Eastern Europe  
during and after  
communist regime**



# Resilient Food Systems

Stalin's plan of nature transformation



Ceausescu's plan



Propaganda: from peasant to state farmer



Propaganda of abundance



Harsh reality: Scarcity and food penury



The queue



Alternative and informal food chains  
The resistance movement



# Resilient Food Systems

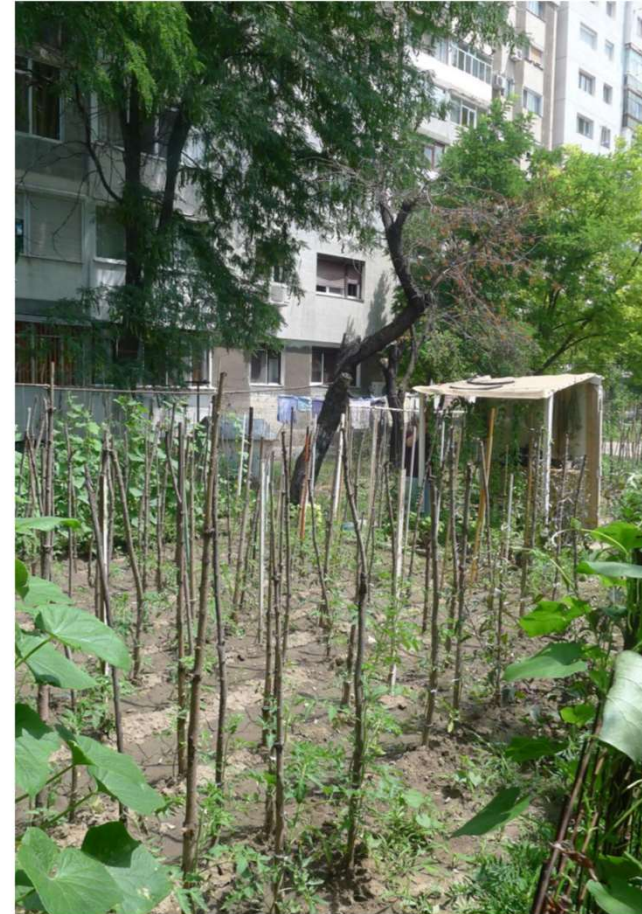
Urban agriculture as a form of subsistence investing marginal land





# Resilient Food Systems

Urban agriculture as a form of subsistence investing marginal land





# Resilient Food Systems



**Informal food network tolerated by the system was supporting of population food needs (estimated 70%), exploiting marginal urban and rural land**



# Resilient Food Systems

## Decollectivisation – after the '90



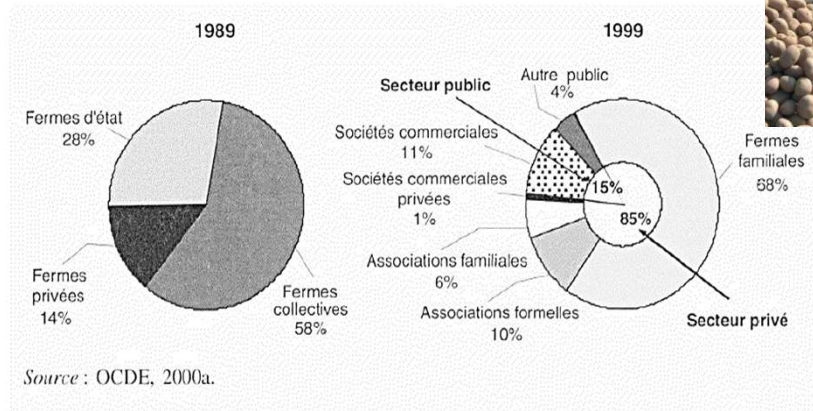


# Resilient Food Systems

Revival of the small-scale peasantry to meet food needs of a restructured system



**Evolution of farms structure 89-99  
from state to small-scale semi-subsistence**



EU integration in 2007  
with CAP orientated  
towards the agro-  
business model





# Resilient Food Systems

Formal and informal farmers markets as alternative food network facilitator





# Resilient Food Systems

## Food distribution evolution



*Socialism*

*After Revolution  
The '90*

*Large scale Retail  
arrival 2005*

*Present*



# Resilient Food Systems



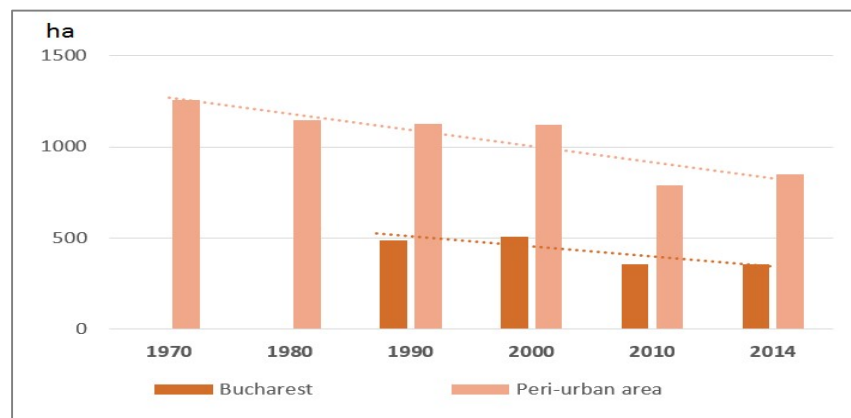


# Resilient Food Systems

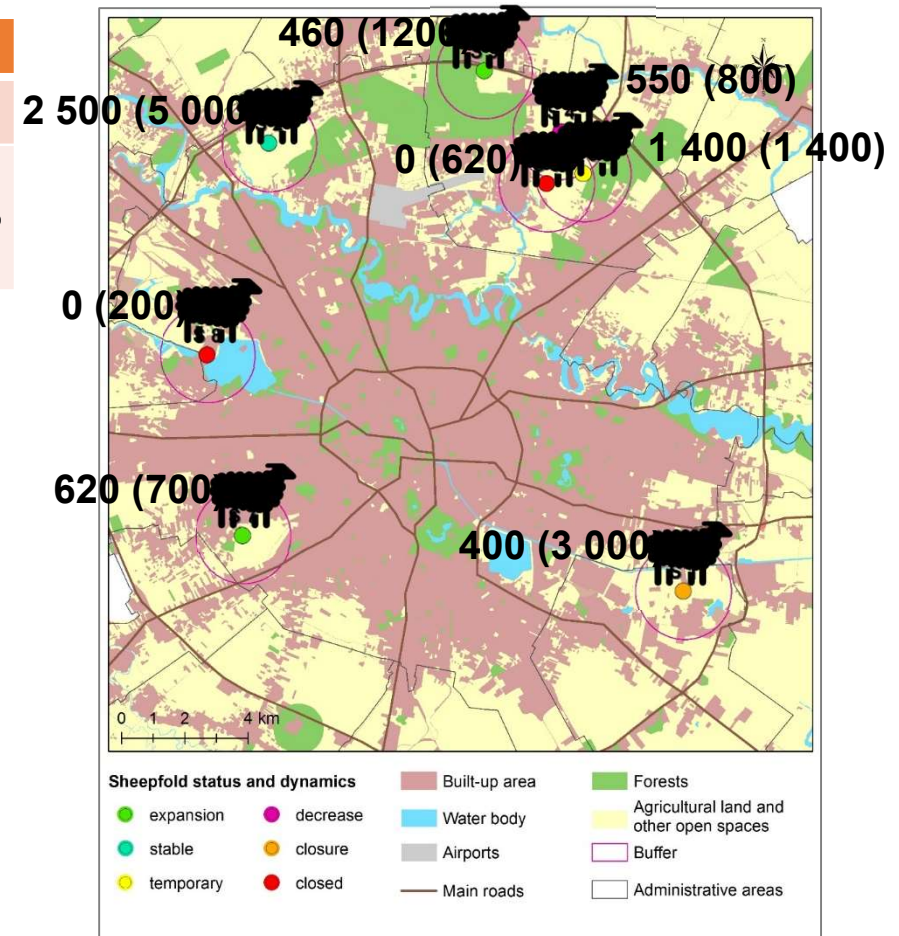
## Bucharest studied sheepfolds

Grazing area	1	2	3	4	5	6	7	8
Surface	130 ha	750 ha	30 ha	200 ha	200 ha	250 ha	2500 ha	50 ha
Property regime	Public And abandoned land	Private and concession	Public and private	Private	Private and abandoned land	Private	Private and abandoned land	Public and abandoned land

*Aprox. grazing area estimated by the shepherds for this locations*



*Pasture dynamics in Bucharest and its peri-urban area for period 1970-2014*



*Localization of the main sheepfold Bucharest (x3=Paris)*



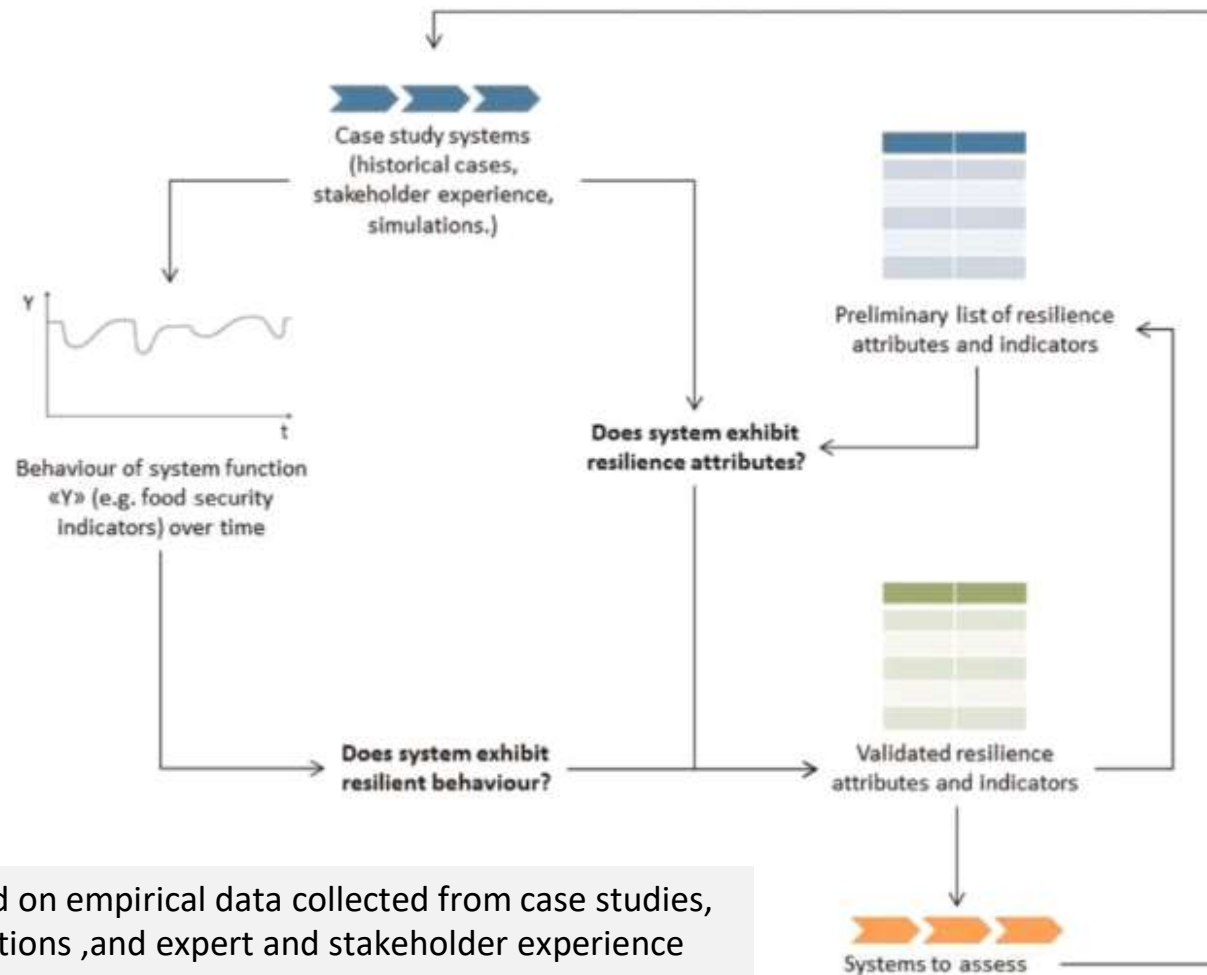
# Resilient Food Systems

## Measuring the food systems resilience:

- livelihoods (Speranza et al., 2014);
- household food se-curity and climate change (IISD, 2013);
- freshwater distributionsystems (Milman and Short, 2008);
- smallholder farmers (Choptiany et al., 2014);
- community and natural disasters (Cutter et al.2010);
- individuals'psychological resilience (Lamond et al., 2009);
- landscapes (Oudenhoven et al., 2010);
- urban communities andclimate disasters (Joerin et al., 2014);
- adaptive capacity of in-stitutions (Gupta et al., 2010);
- agroecosystems (Cabell and Oelofse, 2012).

# Resilient Food Systems

Identification, validation and measurement of food system resilience attributes and indicators.



iteratively achieved based on empirical data collected from case studies, historical analysis, simulations, and expert and stakeholder experience

6.

Assignment mapping and  
analysing a community or  
local food system  
*participants in active mode*



# Learning objectives assignment

- a. Understand the concept of food systems in their cultural, local and regional setting.
- b. Is aware of contemporary challenges to sustainable food systems in context of spatial planning.
- c. Develop an understanding of the multiple dimensions of food systems: social, environmental, economic and spatial.
- d. Can map and evaluate a concrete situation of a food system, making use of a transparent method, to define the most relevant challenges.
- e. Can formulate an approach and/or a possible solution for a selected challenge that is related to his/her own competences and role in the system.
- f. Can define her/his own position and values regarding sustainable food planning
- g. Is able to reflect on his/her own process, using feedback from others reflecting on cultural, social and economic differences.

# Assignment food system

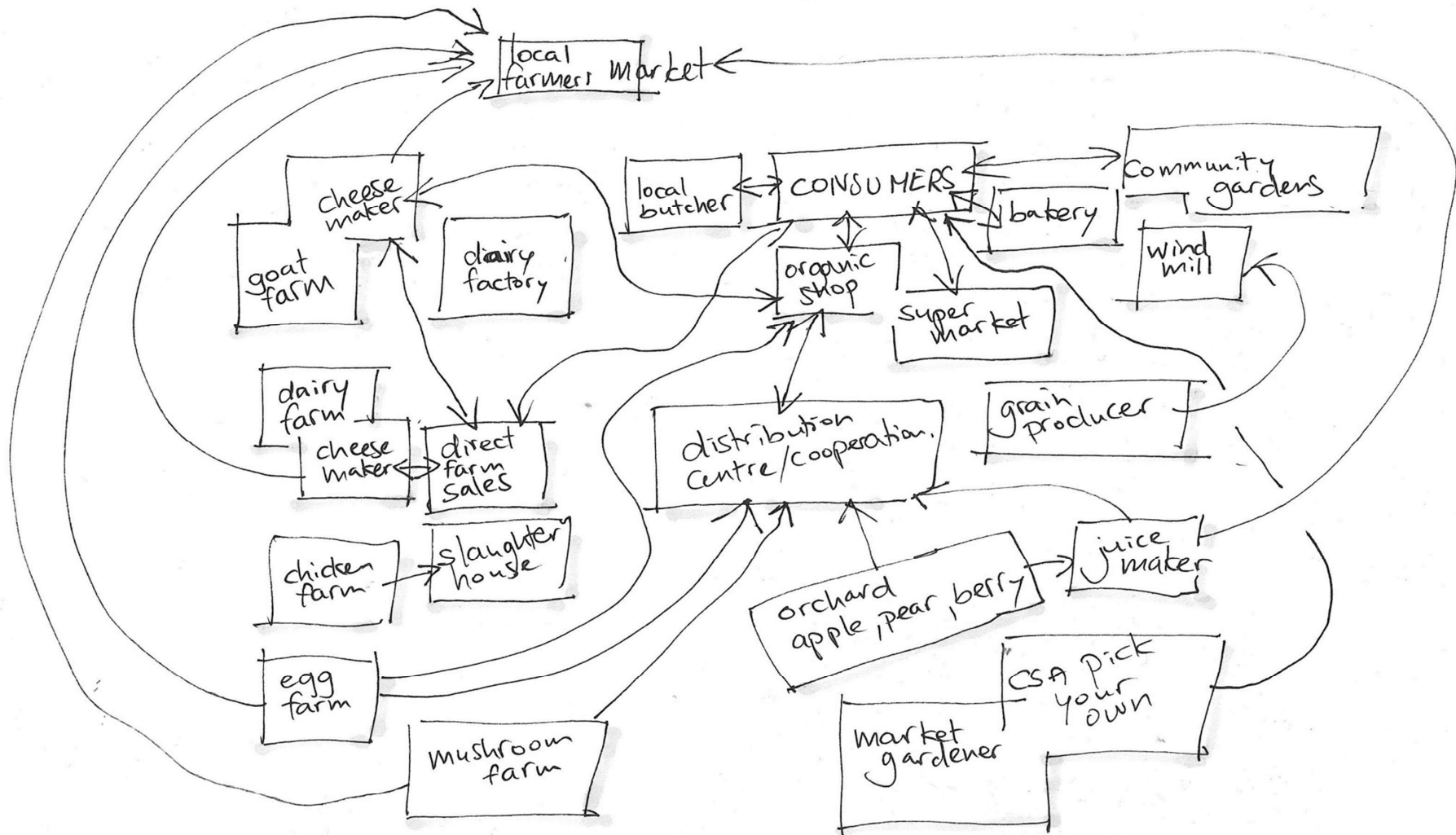
- Define the area of your local foodsystem that you want to address (neighbourhood, quarter, village or town, metropolitan region).
- Mapping methods for the system
- Power map of the community and the main stakeholders
- SWOT analysis for sustainability to define the challenge: community or expert approach
- Scenario development from your perspective
- Self-reflection on process, role and values

# Assignment food system - questions

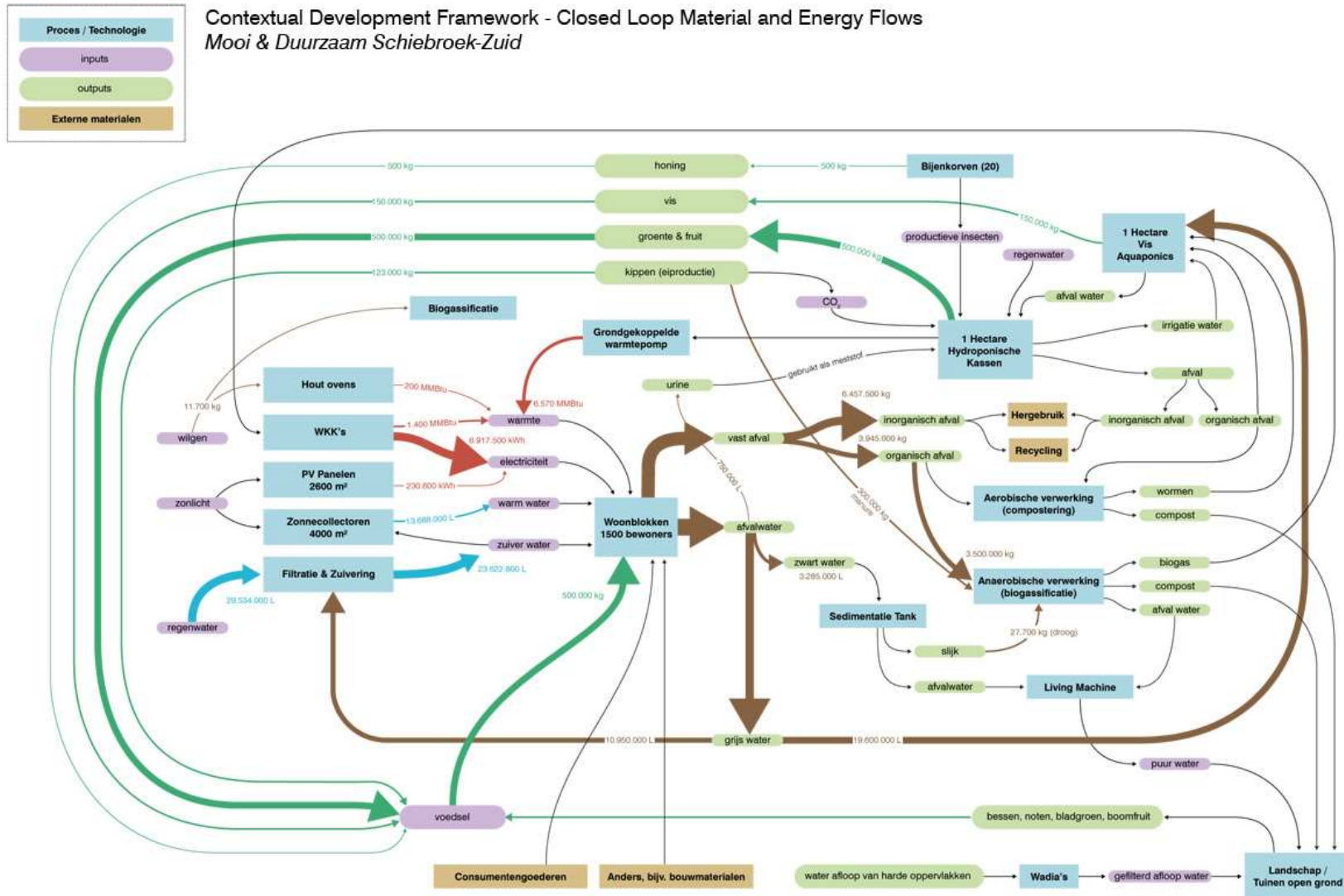
- How does your local food system look like: consumers, retailers, processors, producers?
- What are your roles in this system: private, professional?
- What do you consider as the most important challenge for the sustainability of this system?
- What approach could you from your (future) role or position in the system take to address this challenge?



# A system map can start from scratch



# Example Except for Schiebroek Zuid Rotterdam



# MAPPING LOCAL FOOD WEBS MATRIX

CORE MAPPING				MORE MAPPING
THEMES	STEPS	TASKS	TOOLS	MORE THEMES
1: PLANNING	1. PLANNING MEETING	1. Meeting plan 2. Mind maps 3. Knowledge map 4. Introductory statement 5. Printing internet maps	1. Project scope checklist 2. Introduction template	MORE PLANNING
2: RETAILERS	2. RETAILER MAPPING	6. Retailer survey	3. How to use the questionnaires 4. How to ask the questions 5. Retailer questionnaire 6. Caterer questionnaire	MORE ON RETAILERS
3: PRODUCERS	3. PRODUCER MAPPING	7. Producer survey	7. Producer questionnaire 8. Processor questionnaire	MORE ON PRODUCERS
4: CONSUMERS	4. CONSUMER MAPPING	8. Action charts 9. Consumer survey	9. Line chart 10. Local food map 11. Street work checklists 12. Consumer coding sheet 13. Consumer questionnaire 14. Archive sheet	MORE ON CONSUMERS
5: ANALYSIS	5. GROUP ANALYSIS 6. DATA ANALYSIS	10. Group analysis workshop 11. Spreadsheet analysis	15. Knowledge Map Spreadsheet 16. Data Collection Spreadsheet 17. Consumer Data Collection Spreadsheet	MAPPING FOR... <ul style="list-style-type: none"> <li>Community food campaigns</li> <li>A supermarket threat</li> <li>Local food procurement</li> <li>Local food strategies</li> </ul>
6: PRESENTING	7. REPORT WORKSHOP 8. MAKING MAPS	12. Report workshop plan 13. Generating maps	18. Report template	



# CRFS Toolkit Questions on Food Systems (1)

## A. Who feeds the city region:

- Where does the food come from?
- What and how much food is produced locally in the city region?
- Where are inputs and resources sourced from?
- How does the city region's food supply system fit into the wider national and global food supply system?

*It is usually recommended that the research focus on the main food items consumed and produced in the city region. Food items may also be grouped in specific categories like meat products, dairy, fruits and vegetables, eggs and grains (based on the household consumption basket or at local/potential agricultural and livestock production).*

## B. Food processing and manufacturing:

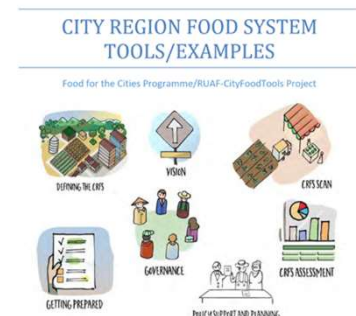
- Which companies prepare/manufacture the food consumed in the city region?

## C. Food wholesale and distribution:

- Who supplies the food to businesses/markets that sell food to consumers?

## D. Food marketing, catering and retail:

- Where do citizens buy their food? Please differentiate between citizens of different socio economic conditions and urban-rural areas.



# CRFS Toolkit Questions on Food Systems (2)

## E. Food consumption:

- What do people in the city region eat?
- What is the composition of their actual diet and food basket?
- What are food security/nutrition/food related health concerns?
- Can people access local food and where?

*Please differentiate between citizens of different socio-economic conditions and for different areas (urban and rural).*

## F. Food and organic waste:

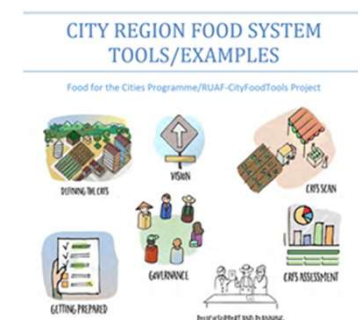
- Where and how much food and organic waste is generated along the food chain and how is it managed?

## G. What policies and plans influence the CRFS?

- Identify policies directly related to food production, processing etc., as well as other sectoral policies (health, economic development, land use planning) that have a bearing on the CRFS.

## H. Who governs the food system?

- What role and power do decision-makers and key stakeholders have in shaping a more sustainable/resilient food system that serves the city region?



# CRFS Toolkit Questions on Food Systems (3)

**I. What are the strengths and vulnerabilities of the current city region food system?**

This can be analysed for different sustainability dimensions and parts of the food chain.

**J. To what extent is the current food system (and different parts of the food system) resilient to shocks and projected circumstances in the longer-term?**

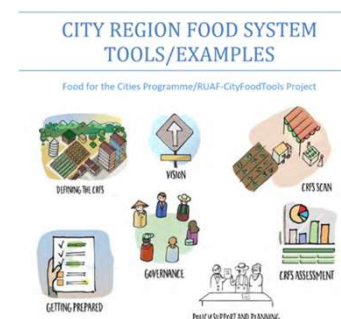
**K. Which areas of the city region, what parts of the food chain and which groups of residents/involved stakeholders would be most adversely affected by vulnerabilities in the food system?**

**L. What are the key priority areas that need to be addressed to develop a more sustainable and resilient food system for the future?**

Note: consider the different sustainability and food systems areas and dimensions.

**M. What are the 5-10 main key issues that require further research and in-depth assessment?**

*Taking a 'whole food system' approach, the data types suggested are based on a matrix of food system dimensions: the sustainability areas that reflect the multifunctional nature of the food system; and ii) the components of the whole food system (from production through to waste, and also food system policy and planning). The table below sets out this early stage matrix and the above mentioned overarching research questions that relate to the various components of the food system.*





7.

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8.

Outlook on the session  
of Thursday April 15



# CITY-REGION FOOD SYSTEMS AND URBAN FOODSCAPES – April 15

**Dr. Coline Perrin**

INRAE - Umr Innovation, Montpellier, France

**Damien Conaré**

UNESCO Chair on World Food System, Montpellier SupAgro

Sustainable food policies for cities

Challenges for the city-region food systems

Case-study of the research program

Foodscapes

Effects of urban food environment on food styles and their sustainability in Montpellier