

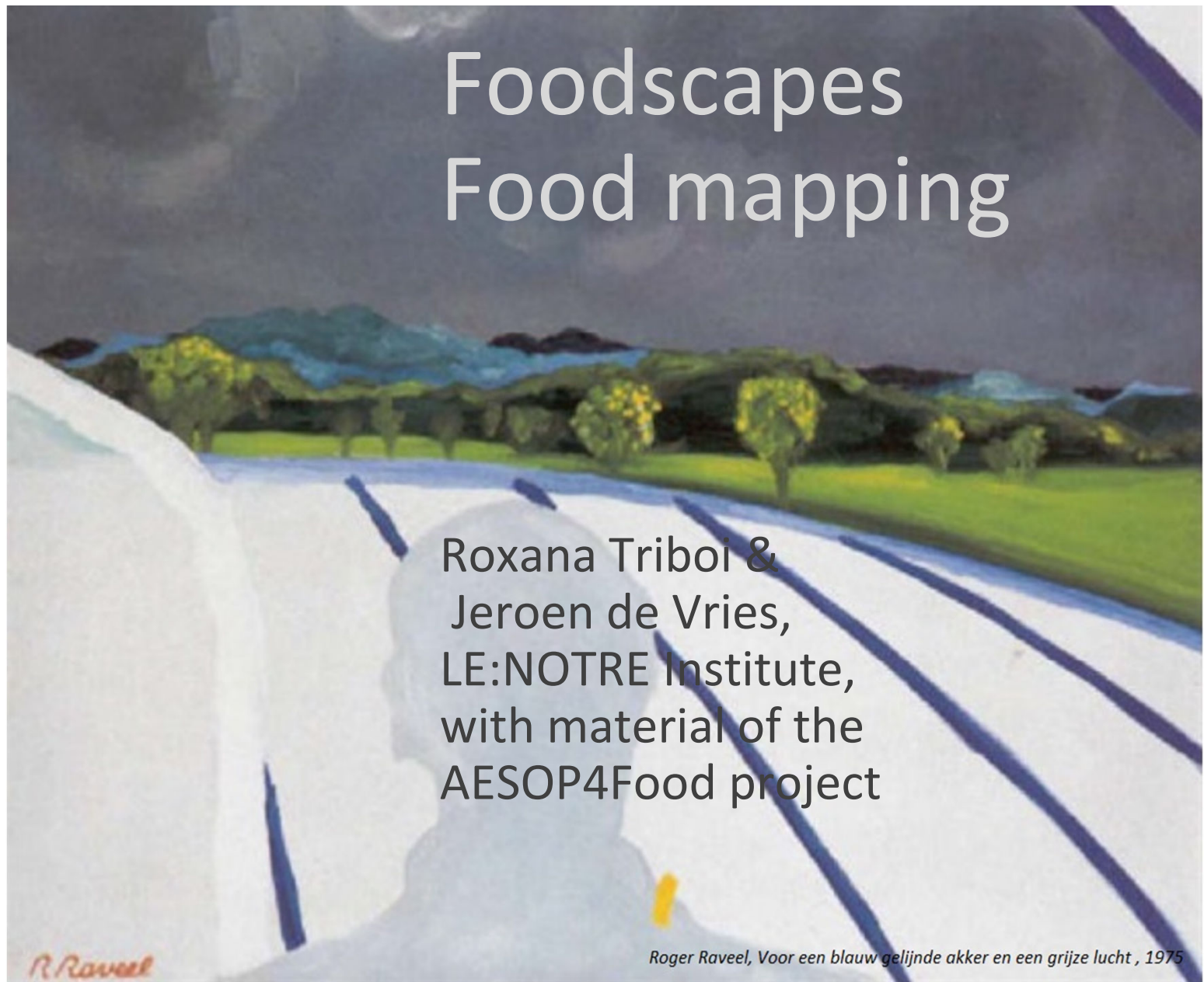
Lecture 2

Monday
October 12,
2026

MLA Vilnius
Tech

Foodscapes Food mapping

Roxana Triboi &
Jeroen de Vries,
LE:NOTRE Institute,
with material of the
AESOP4Food project



Roger Raveel, Voor een blauw gelijnde akker en een grijze lucht , 1975

October 5,2026 Online	L-1 - Introduction and Current challenges of the food system, global trends and regional perspective.
EE time 12h15 - 13h45	Online, Introduction, overview course, concepts, first exercise.
October 12-14, 2026, Onsite	Intensive onsite week with lectures by Dr. Roxana Triboi and Jeroen de Vries, field visit to the area of the assignment, collaborative goals setting and the lectures 2, 3,4, and 5.
Monday, October 12, 2026 , Onsite	
12h15 - 13h30 EET	L-2 City region food mapping methods and cases on multi-scale levels
	As background presentations on food system mapping, you can view the presentation of Jorge Molero from the network for agroecology of Spanish Municipalities (30/03/2022) and the presentation by Katrin Bohn on Spatial and participatory food (systems) mapping (12/05/2022).
14h00 -15h15	L-3 Agro-ecological urbanism: concepts and building blocks (30 min)and a game (30 min) to explore this
	This lecture recaps the building blocks of Agroecological Urbanism.
15h15-15h30	Introduction to the assignment and Q&A.

Content today

- Questions and comments on the reading material
- Introduction to food system mapping
- Using the Wiki
- Seminar on literature organisation to organise
- Discussion on the assignment

Questions on the literature and video

Carolyn Steel Hungry Cities by Carolyn Steel video

IPES-Food report A Long Food Movement.

Deh-Tor, C.M. . 2017 From Agriculture in the City to an Agroecological Urbanism: The transformative pathway of urban (political) agroecology, in: Urban Agriculture Magazine no. 33 – Urban Agroecology. Focus on the introduction, page 5 until page 13.

Introduction to food system mapping

You need this for the assignment of the selected area, steps:

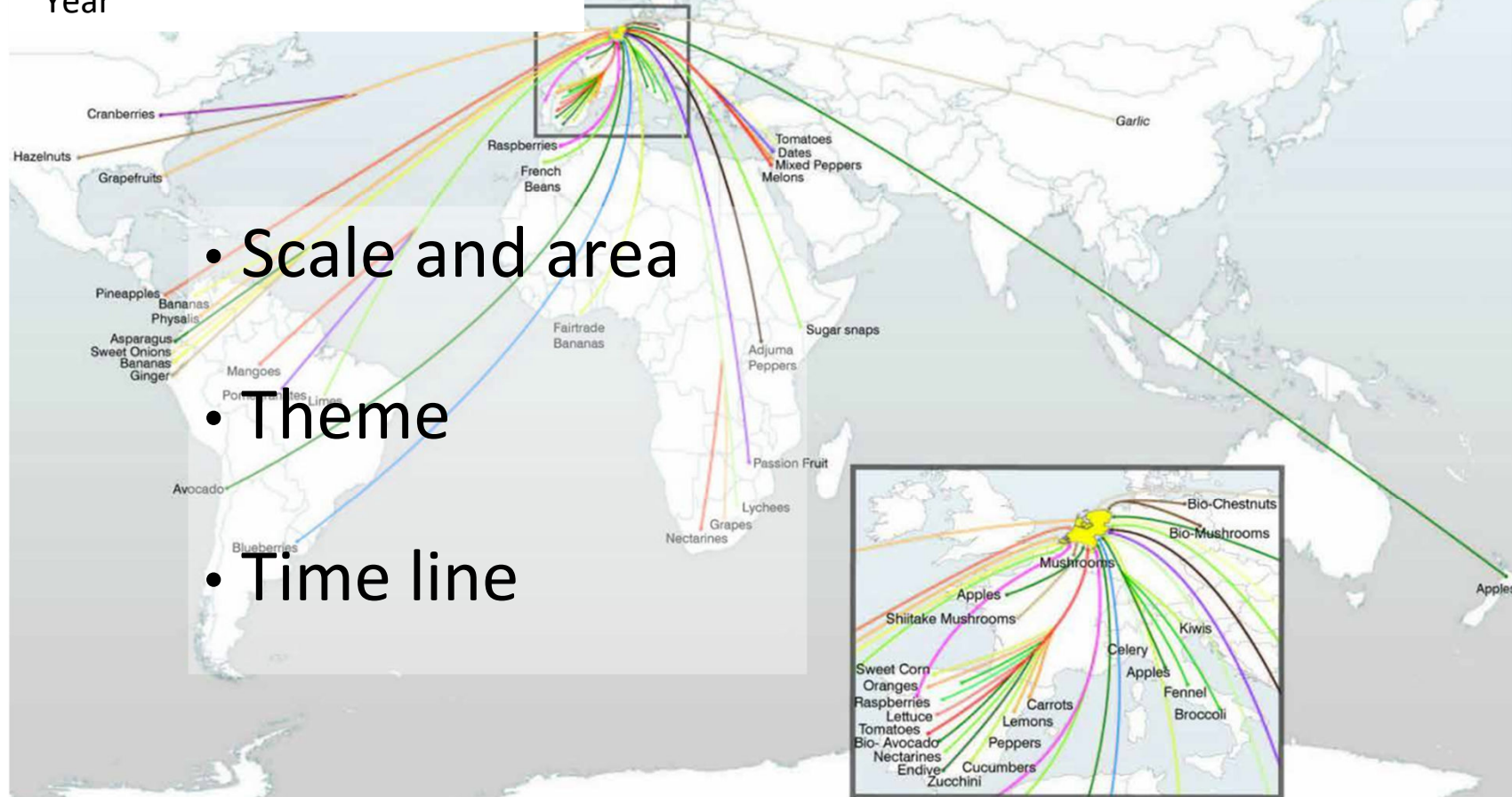
- Get an overview and impression of the area
- **Make a food system map (matrix or a graphical scheme)**
- Strengths, weaknesses, opportunities and threats of the system?
- Which aspects of sustainability are the most important from your position?
- Most important challenge for the sustainability of this system?
- Define goals and strategy , make a proposal and write a reflection

BOX 1. WHAT ARE AGRIFOOD SYSTEMS?

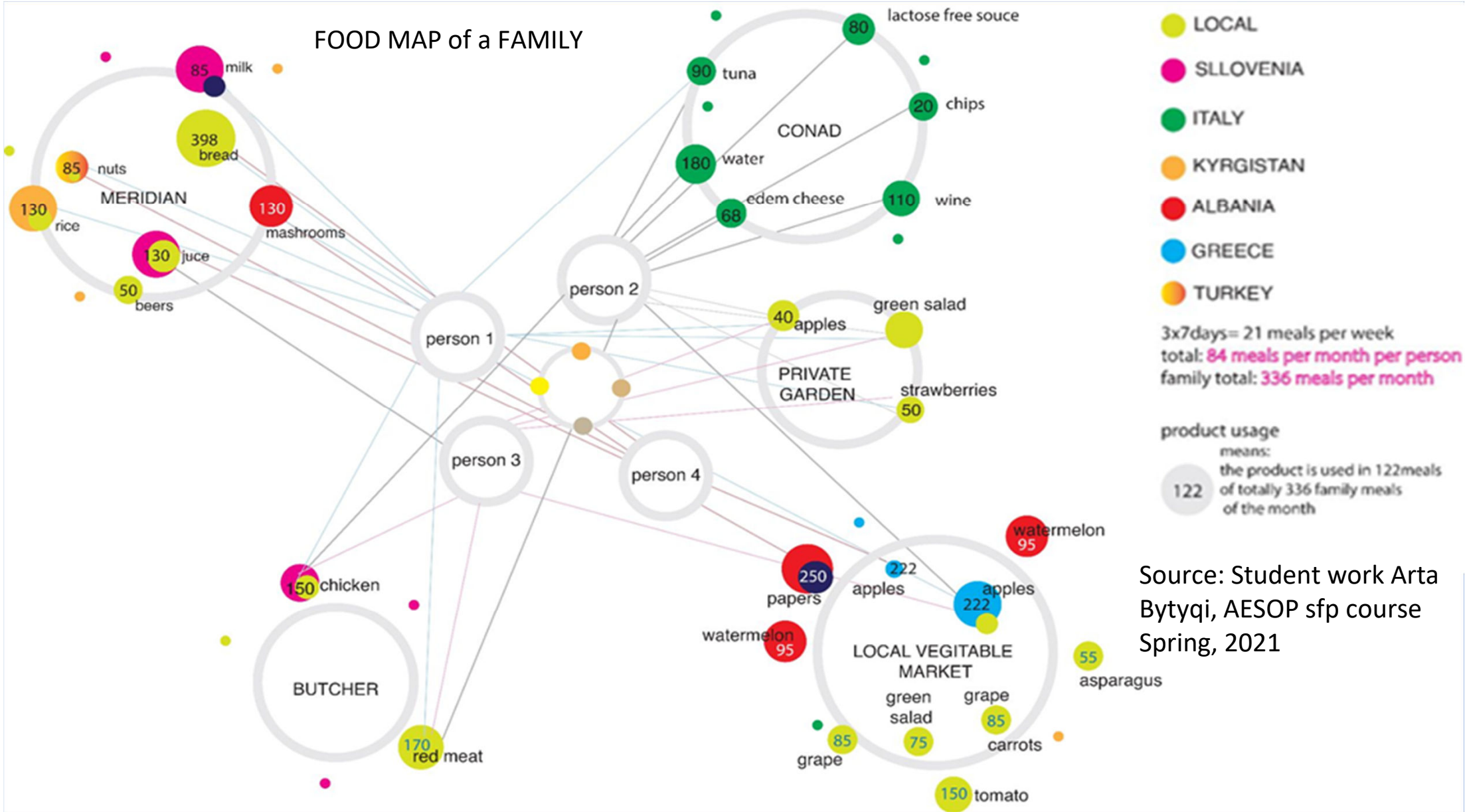
Source: FAO 2025. Transforming food and agriculture through a systems approach. Rome. <https://doi.org/10.4060/cd6071en>

Global
Fruit & Vegetables
Year

Food system mapping



FOOD MAP of a FAMILY



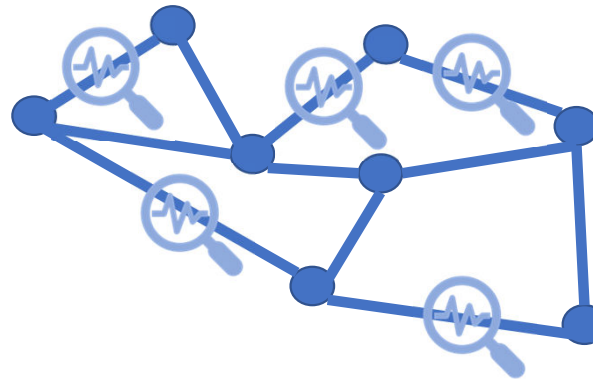
Source: Student work Arta Bytyqi, AESOP sfp course Spring, 2021

Food system mapping

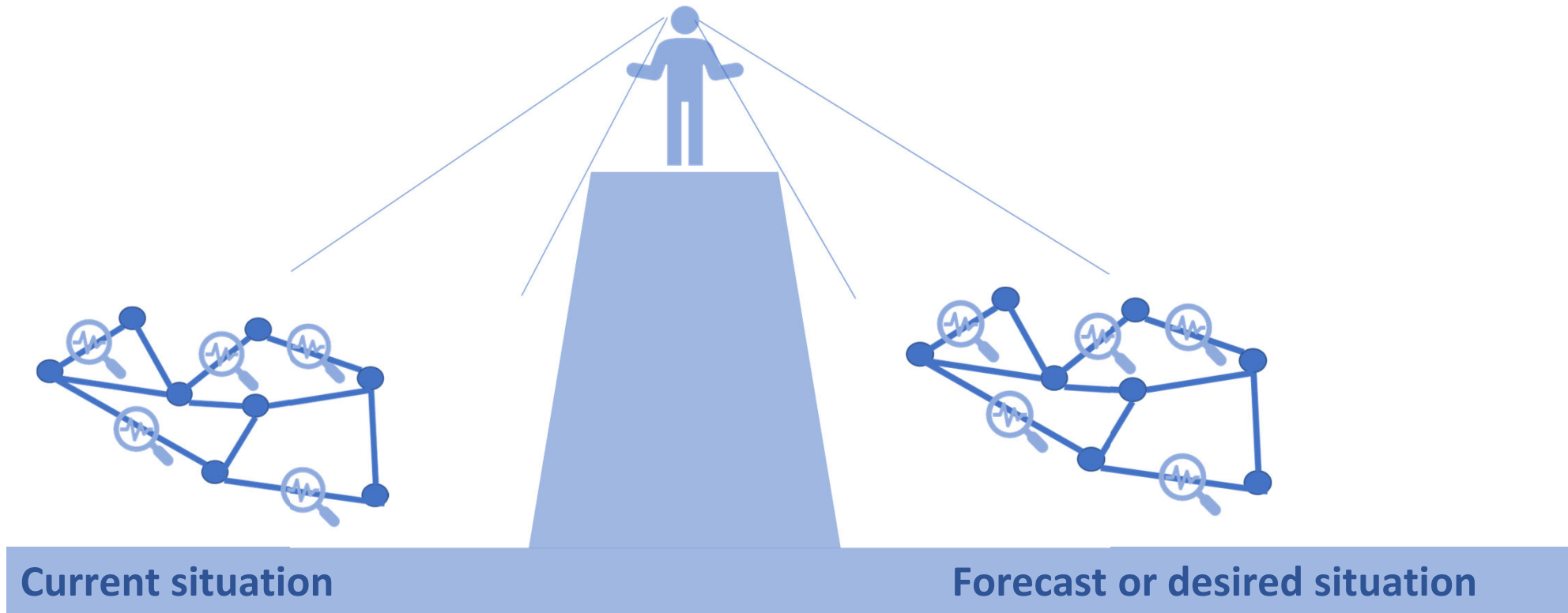
- Mapping methods for the system
- Map of the community and the main stakeholders
- Guiding questions for your analysis

System network

- Elements
- Relations
-  Quantitative and qualitative data



What do you want to use for analysis?



Step 1: which elements are part of my system?

You can just list them during a brainstorm

- Types of food?
- Crops and produce for the food?
- Actors?
- Stakeholders?
- Land? Types of production areas?
- Materials?

Step 1: which elements are part of my system?

You can just list them during a brainstorm

- Vegetables
- Eggs
- Compost
- Schoolgardens
- Meadows
- Kitchengardens
- Farmersmarket
- Mill
- Consumers
- Farmers
- Bakers
- Market gardens
- Community gardens
- Waste land
- Schoolchildren
- Supermarkets

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- *In canteens*
- *Foodbanks*
- *Less advantaged*
- *Tourists*
- *In restaurants*
- *Streetfood*
- *Schoollunches*
- *Prosumers*
-

Step 1: which elements are part of my system?

You can just list them during a brainstorm

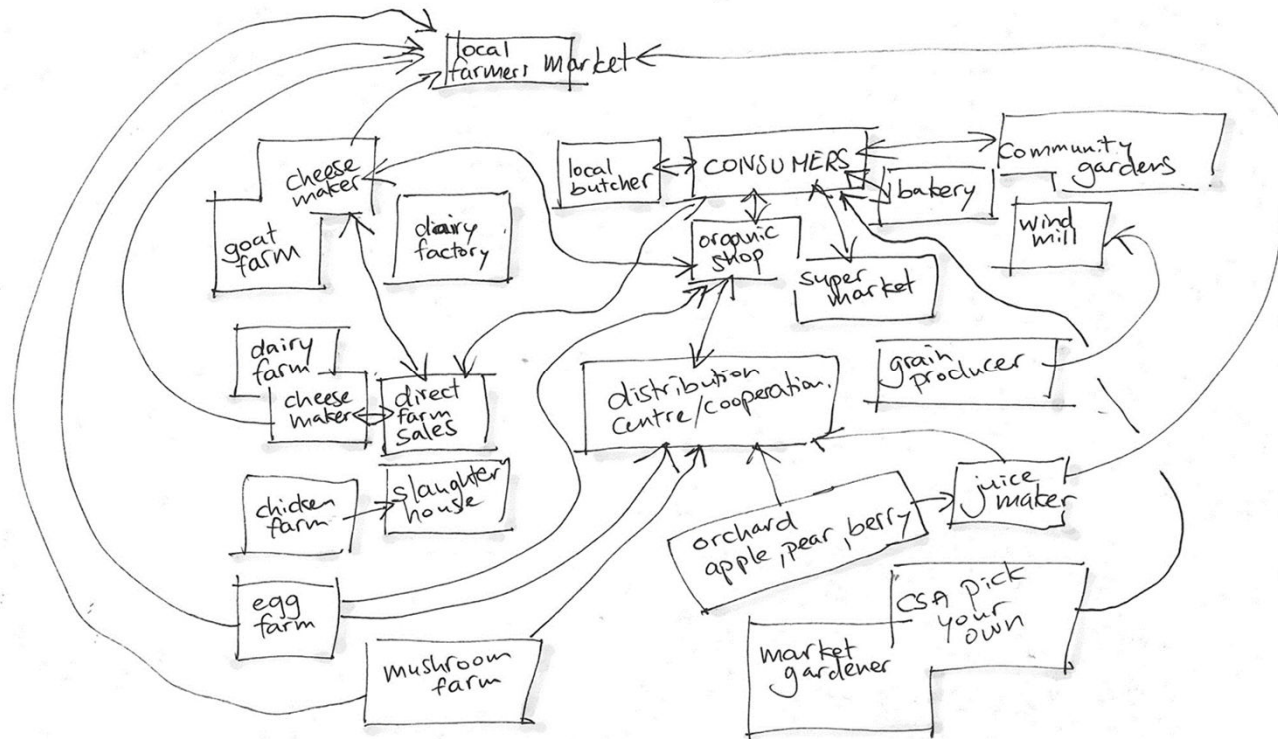
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- *Export oriented*
- *Organic farmers*
- *Community Supported Agriculture*
- *Farmers open for transition*
- *Urban farmers*
- *Care farms*

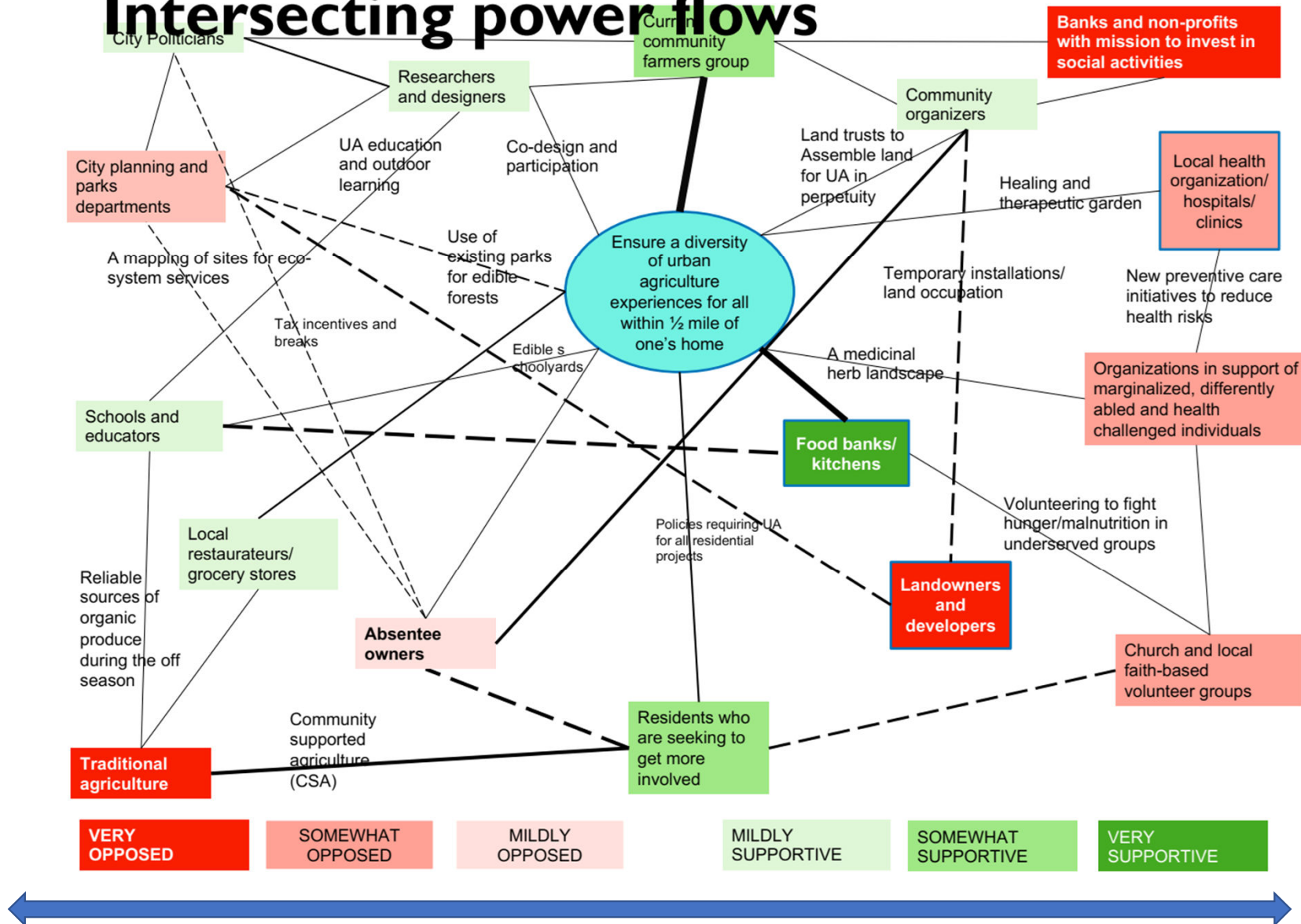
Step 2: organise and group the elements: hierarchy, typology, define the relations



Step 3: how do the elements relate to each other?

- Flows, streams, processes, social relations
- Qualitative: power, regulations, laws
- Quantitative relations: make sure you use standard units and clear conversions

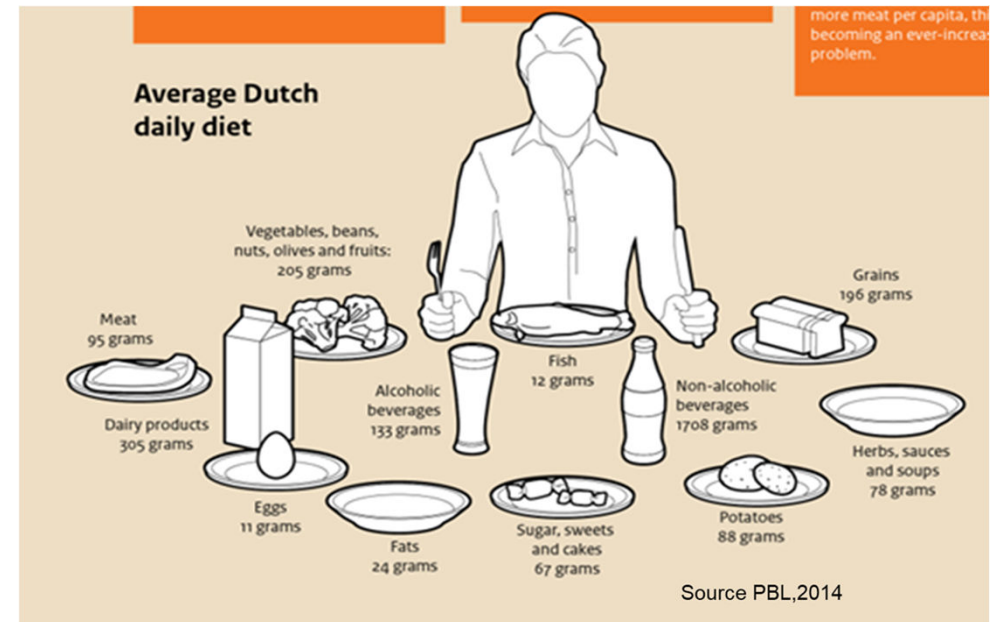
Intersecting power flows



Source: Deni Ruggeri, presentation landscape democracy, LE:NOTRE Landscape Forum 2022, student work

Step 4: collect data on the elements and the relationships

- How many consumers are there?
- How much vegetables do they eat per year?
- How much land do you need for the crops?
- What type of production land or facilities is available?
-



Step 5 Make sure that the units of quantitative data are linked to each other

Production per year

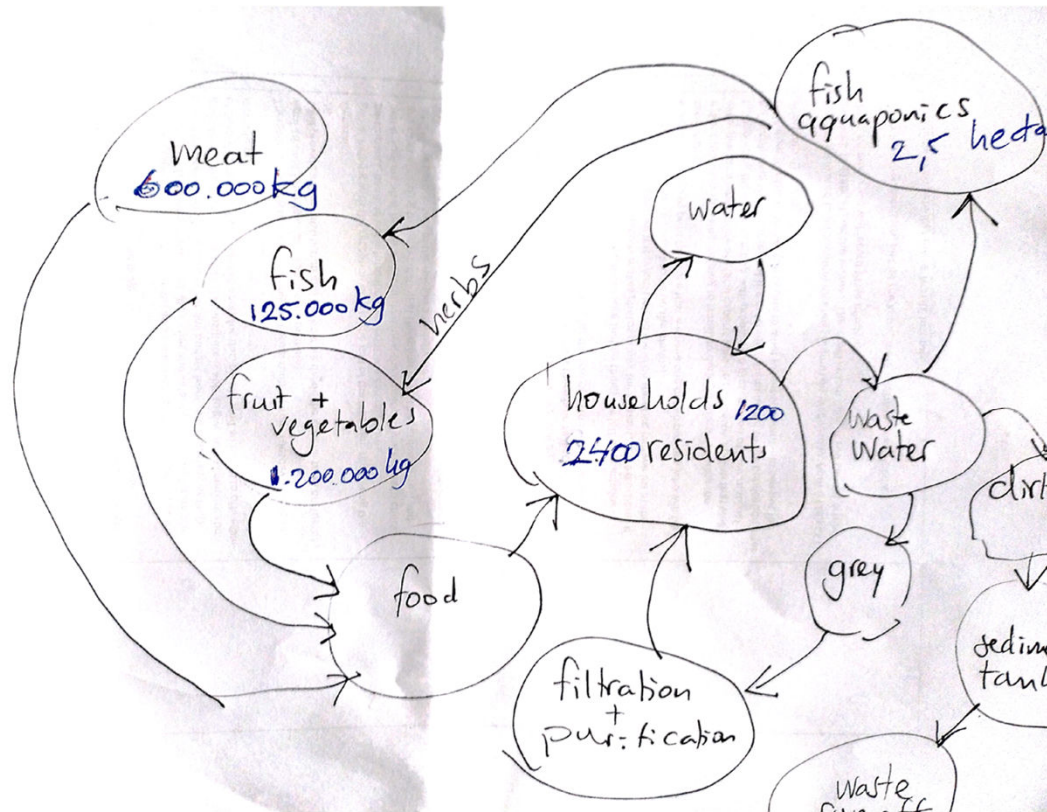
Crop or product	kg/m ² *)	notes
Potatoes	2,9	
Grain	0,7	
Pulse	1,5	
Vegetables	5	open field
	30	glass house
Herbs	1,5	
Fruits	4	mostly apples and pears: farms, orchards, edible green
	2	berries in roof gardens, kitchen gardens
	8	berries in glass houses, tunnels (professional horticulture)
Beef	0,07	pasture in urban farm or green infra farm
Pork	0,57	urban farm or green infra farm, outdoor
Poultry	0,11	urban farm combination indoor/outdoor incl corn fodder
Fish	6,67	organic aquaponics, with fodder production and facilities
Cheese	0,15	1/10 of milk production per hectare
Dairy	1,50	2 cows per hectare, 7500 litres per cow per year
Eggs	0,34	urban farm combination indoor/outdoor including fodder (corn)
*) the sources of the key figures can be found in the Excel file of the local urban food calculator		

Consumption per year

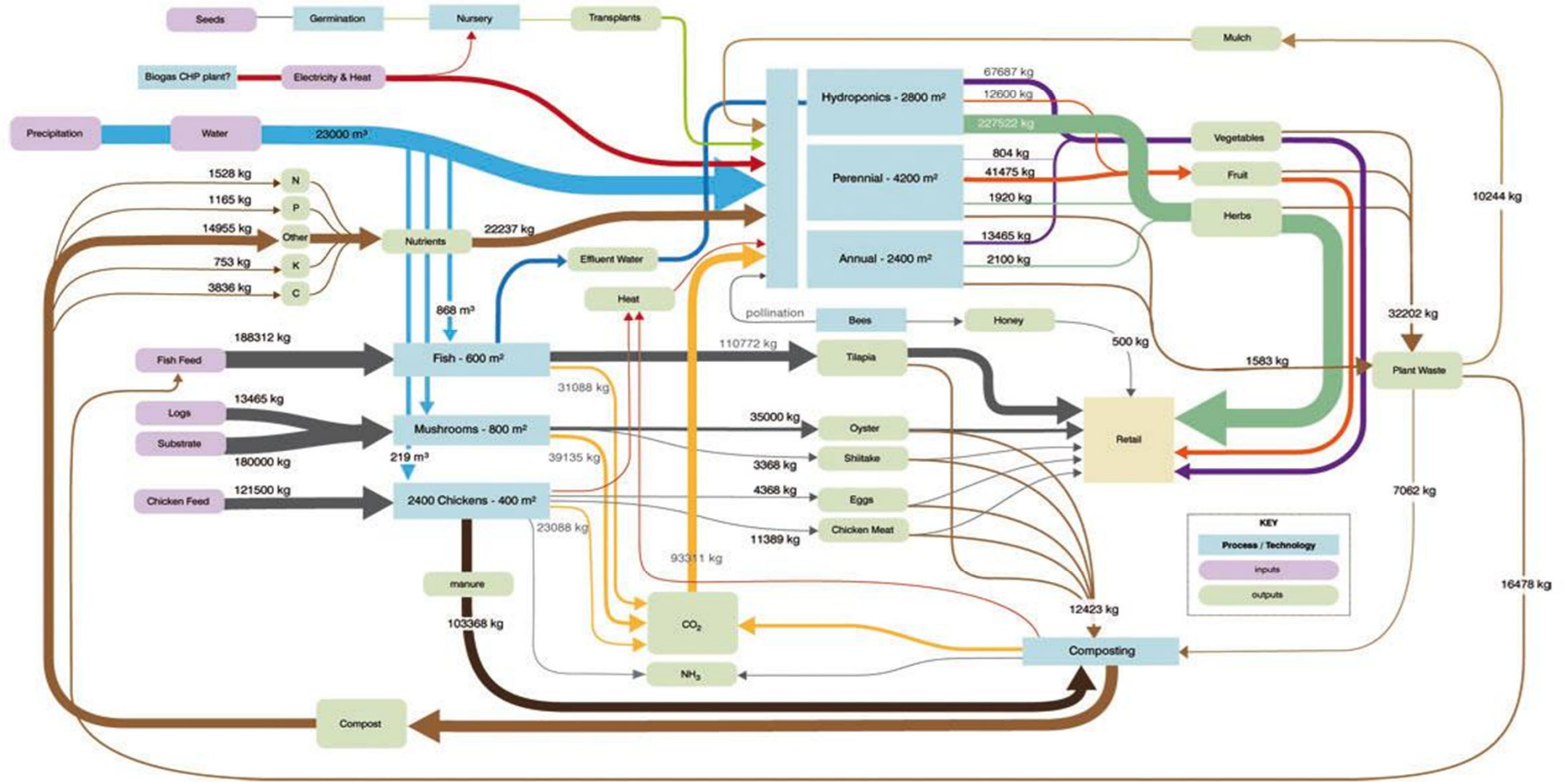
Type of food	grams per person per day	kilos per person per year
Potatoes	88	241
Grains (pasta and bread)	156	427
Vegetables (excl. pulse)	145	397
Pulse	20	55
Fruits	40	110
Herbs	10	27
Beef	57	156
Pork	19	52
Poultry	19	52
Fish	12	33
Cheese	20	55
Dairy (excluding cheese)	285	781
Eggs	11	30

Step 6 Add the data in the system map

- Depending on your theme:
- Show the gaps
- See how the system can be closed or improved
-



Polydome Material Flow Diagram



Food system mapping

Guiding questions for your analysis

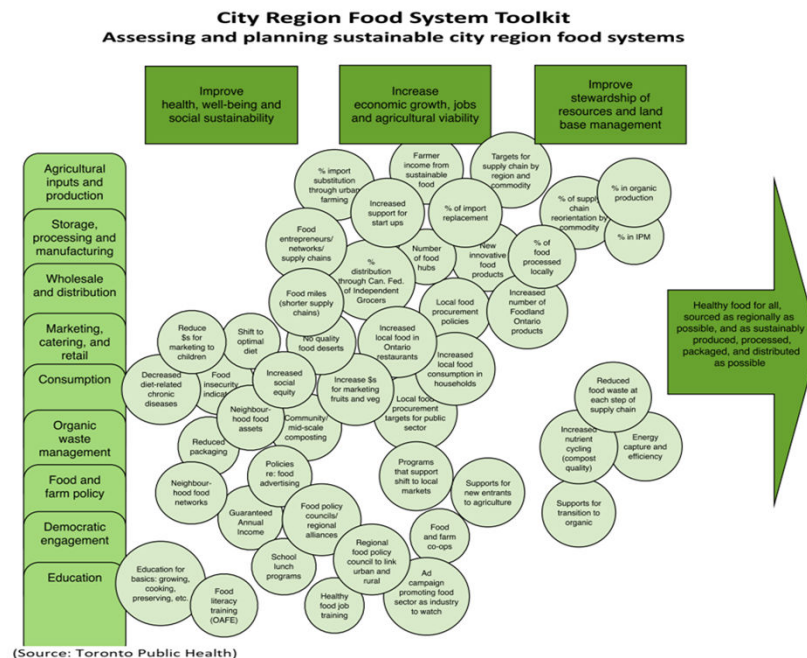
Select a reference that fits your field of play, your theme, such as FAO, RUAF and others

CITY REGION FOOD SYSTEM TOOLS/EXAMPLES

Food for the Cities Programme/RUAF-CityFoodTools Project



Source: FAO 2018



Use guiding 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?

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.

Guiding 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?

F. Food and organic waste:

- Where and how much food and organic waste is generated along the food chain, 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 for analysis

- What are the strengths and vulnerabilities of the current city region food system?
- 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?
- 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?
- What are the key priority areas that need to be addressed to develop a more sustainable and resilient food system for the future?
- What are the 5-10 main key issues that require further research and in-depth assessment?

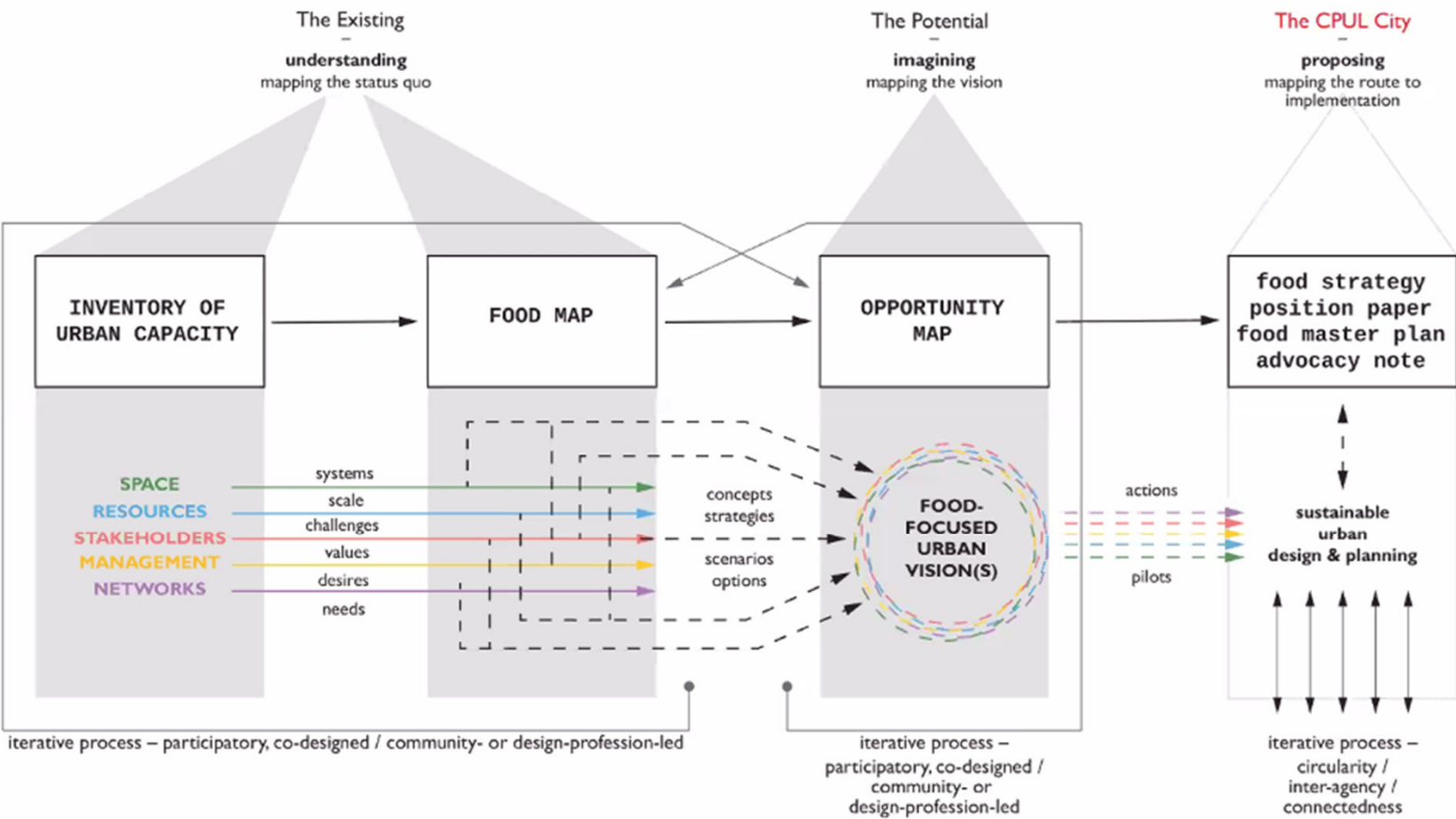
Example of food mapping

- Work of Katrin Bohn on Carthago city

Bohn&Viljoen case study

The CPUL Opportunity Mapping Method

aim – integrating urban agriculture and food system activities



typical opportunity mapping process – will be adapted to the specific urban situation and task

integration and alignment

// Urban themes

12 // Strategic statements

- #1 // Everything is a resource, especially waste and grey waters
- #2 // Local food production is a target to start with
- #3 // Food system activities have a financial value
- #4 // There is educational value in connecting food literacy to food sites
- #5 // Pressure related to Carthage's world heritage status can be a benefit
- #6 // Strong linkages between municipality and community are good
- #7 // Where map layers overlap, we can best work together
- #8 // Unused urban spaces offer employment opportunities that the countryside does not
- #9 // Carthage's compactness can be a benefit
- #10 // Spatial networks can enable social networks
- #11 // Whatever is done, there is always a historical framework
- #12 // Carthage doesn't lack creativity, the challenge is to push boundaries & regulations

9 // Food-focussed urban visions

#1 // Les vergers de Carthage



#2 // Un réseau de jardins historiques



#3 // L'agriculture, pilier de l'économie de Carthage



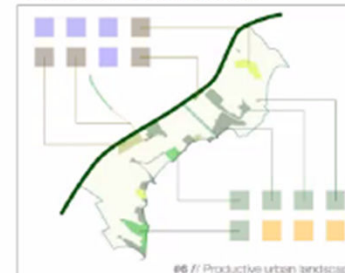
#4 // La ville auto-suffisante



#5 // Réseaux d'alphabétisation alimentaire



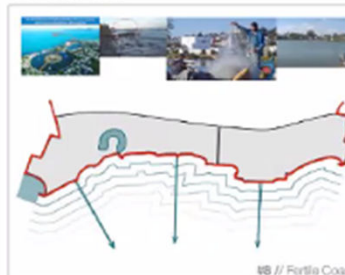
#6 // Paysages urbains productifs



#7 // Le monde te soutient



#8 // Côte fertile



#9 // Une nouvelle génération d'agriculteurs

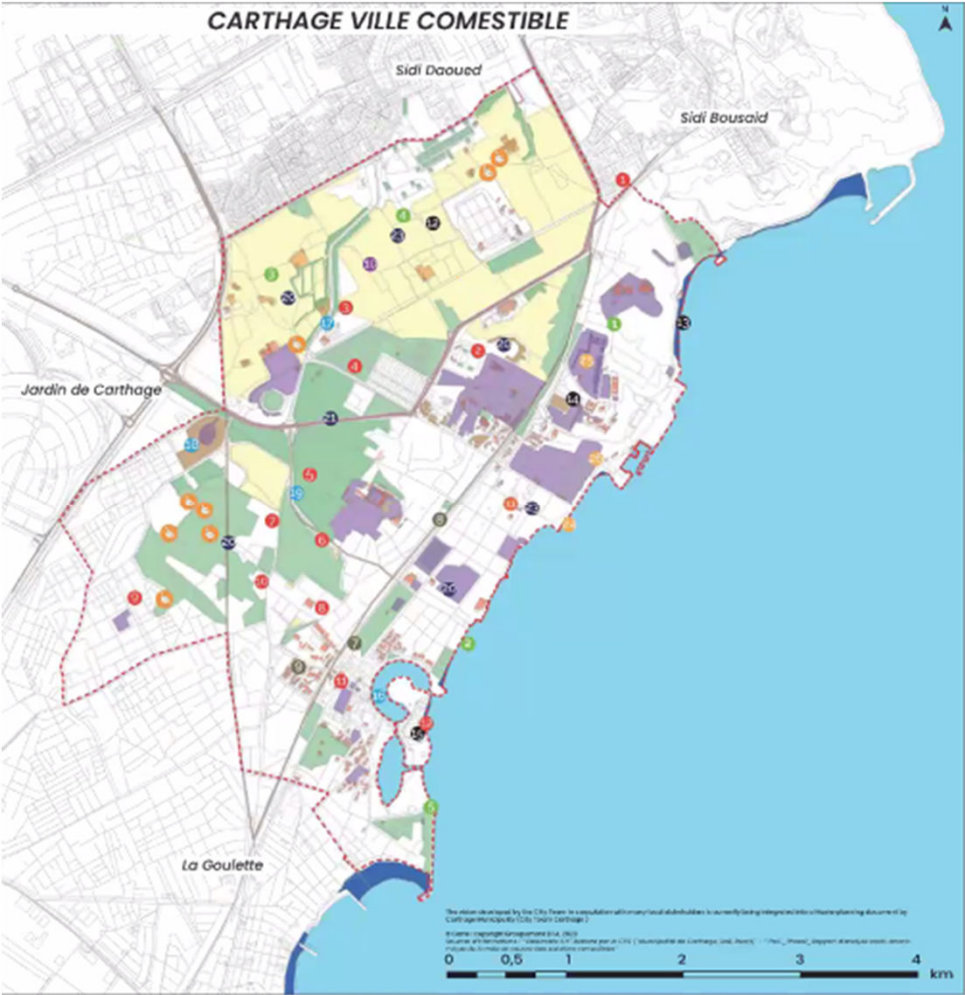


ASSOCIATION
LA RECHERCHE
EN ACTION

CARTHAGE



University
of
Brighton



LEGENDE

ECS Existants à Carthage

- Micro ferme urbaine Jardin d'Antioch
- Cloua Gastronomique
- Cerise Culture et Agriculture
- Espace Triller public Cloua Park
- ECS Antioch
- Cloua Street - Rue de la Vie
- Agraire Urbain
- Espace Educatif Triller
- Urban Farm
- Cloua Market
- Non coin nature
- ECS Niche Cities de Carthage

Potential commun
Espace

SITES POSSIBLES DES ECS PRIORITÉS

- Terres agricoles et potagers
- Water-cour
- Forêt
- Terrain et Jardins d'Écoles Publiques
- Le Merid
- Rues et Jardins Publics
- Terrain et Jardins Privés

ECS PROJÉTÉS À CARTHAGE

AGRICULTURE URBAINE

- Micro-RT de maraichères urbaines et maraichères (potagers, jardins d'école)
- Micro-fermes, fermes et potagers
- Services de maraichères et arboriculture
- ECI Sidi Bousaid de la Carthage Antioch
 - 1^{er} Musée de l'Agriculture et de l'Art culinaire de Carthage
 - 1^{er} Centre MAO de l'histoire agricole de Carthage
 - 1^{er} Centre de recherche pour les techniques agricoles des pratiques agricoles
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 - Application touristique (Guide Touristique des Compromises du Site Archéologique)
 - ECI en RTT à travers les zones maraichères et maraichères (Compromises des techniques agricoles de Carthage)
- ECI Niche
 - Projet de nouveau port
 - Stratification des techniques de pêche connectée au port public (déjà en place)

METABOLISME URBAIN

- 1^{er} Traitement des eaux usées
- 1^{er} Procédure, traitement des eaux usées
- 1^{er} Compostage

EDUCATION

- 1^{er} Food Literacy
- 1^{er} Tutoriels
- 1^{er} Concours International
- 1^{er} Master recherche

COMMERCE

- 1^{er} Local food market
- 1^{er} Coopérative (maraichères, arboriculture)
- 1^{er} Mise en place d'un marché à Carthage spécialisée
- 1^{er} Plateforme de services, de gestion, de distribution et de distribution des produits et services locaux (maraichères, arboriculture)

INDUSTRIE

- 1^{er} Agro-alimentaire artisanale

GOVERNANCE

- 1^{er} Food strategy

CULTURE

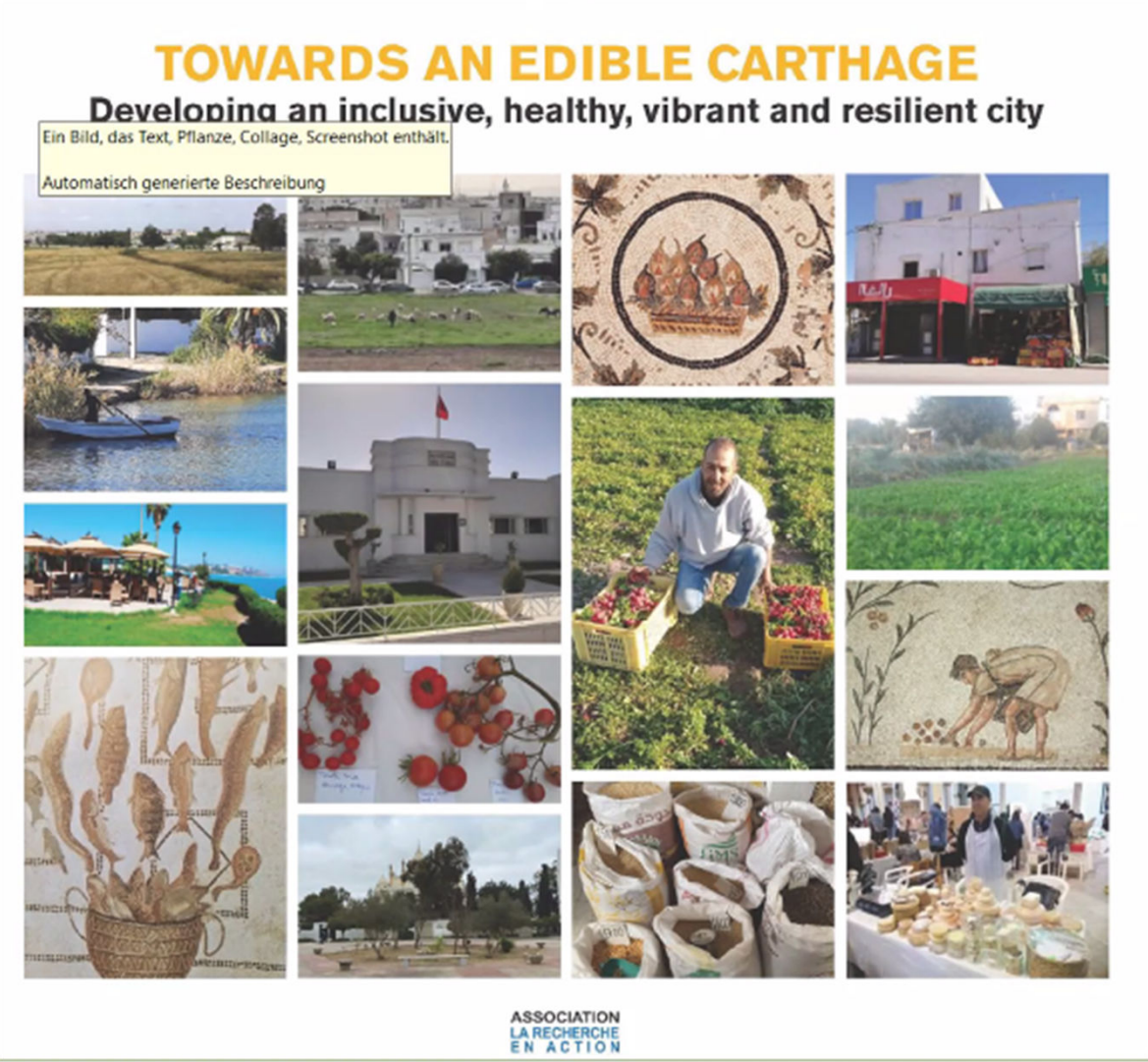
- 1^{er} Espace de culture
- 1^{er} Soins médicaux et éducation
- 1^{er} Festival local food
- 1^{er} Concert de rue

TOURISME

- 1^{er} Agence de voyage
- 1^{er} Réseau d'écotourisme et de tourisme agricole et de tourisme agricole
- 1^{er} Lieu des visiteurs de groupes sur les sites archéologiques

Transformation urbaine

Transformation de la vie urbaine



Short poll on the literature

Poll: How do you define agroecology?

Write down your answer (a,b,c,d)

- a. A combination of ecological, biological and biodynamic agriculture
- b. A type of agriculture where cycles of material, water, organic matter are closed.
- c. A method of agriculture where farmers combine the material processes with spiritual approaches relating to cosmic cycles
- d. Agriculture that is productive, conserves natural resources, and socially engaged.

What would be for you transformative change for sustainable food planning

- a. A change of diets in a group of consumers to consume more local products
- b. Empowerment of a group of farmers to organise collectively short chains
- c. Creating a community garden in your neighbourhood
- d. Informing a councillor of the community on the advantages of reterritorialisation of food production

Using the wiki: references and powerpoints of the lectures

https://wiki.landscape-portal.org/index.php/2026_MLA_Vilnius_Productive_Landscapes



About AESOP4Food
AESOP for Food Team
AESOP4Food Project results and reports
Reading list

Online Seminar Spring 2026

AESOP4Food Spring Seminar 2026

Online Seminar Spring 2025

AESOP4Food Spring Seminar 2025

Online Seminar 2024

Living Labs and research questions 2024

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2026 MLA Vilnius Productive Landscapes

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- 1 Studying foodscapes within the course Productive Landscapes
 - 1.1 Topic of the course
 - 1.2 Aim of the course
 - 1.3 Learning outcomes
 - 1.4 Lectures, Q&A. and presentations
 - 1.4.1 Preparatory activities between October 5 and October 12, 2026
 - 1.4.2 Reading material
 - 1.4.2.1 Background material only for additional information
 - 1.4.3 Reading material as background for the assignment
 - 1.5 Lectures
 - 1.5.1 L-1 - Introduction and Current challenges of the food system, global trends and regional perspective.
 - 1.5.2 L-2 City region food mapping methods and cases on multi-scale levels
 - 1.5.3 L-3 Agro-ecological urbanism: concepts and building blocks
 - 1.5.4 Discussing the assignment
 - 1.5.5 Field visit of the study area
 - 1.5.6 Nominal Group Technique

Seminar on the reading material online to be planned later

Each student selects a text of the reading material

Prepare 3 slides to present:

- a. The main content
- b. Your reflection on the content: what do you think of it, what is the most interesting
- c. Explain how what you read may impact your work as a landscape architect.

Everybody presents for 6 minutes (we will make use of a timer.

We conclude with a general reflection.

Seminar on the reading material Thursday

dividing tasks

	Read this and think about what it could bring to your assignment or could mean for the food systems in Lithuania.	
1	IPES report A Long Food Movement.	
2	Deh-Tor, C.M. . 2017 From Agriculture in the City to an Agroecological Urbanism	
3	FAO 2025. Transforming food and agriculture through a systems approach. Rome. https://doi.org/10.4060/cd6071en , page 1-30	
4	IPES-Food Agribusiness Atlas: https://ipes-food.org/wp-content/uploads/2026/09/AgribusinessAtlas.pdf Select three entries: for instance Blue Food about Fisheries, SEEDS – Plants under copyright control	
5	Tornaghi, Chiara. (2016). Urban Agriculture in the Food-Disabling City: (Re)defining Urban Food Justice, Reimagining a Politics of Empowerment. Antipode. 49. 10.1111/anti.12291.	
6	Menatti. L. (2017). Landscape: from common good to human rights. International Journal of the Commons Vol.11, no2 2017, p649 – 659	
7	The role and functions of Stakeholders in the development of local food systems: Case of Lithuania.	
8	IPES-Food. 2026. The new geopolitics of food: navigating policies for resilient self-reliance. https://ipes-food.org/wp-content/uploads/2026/05/NewGeopoliticsOfFood.pdf	

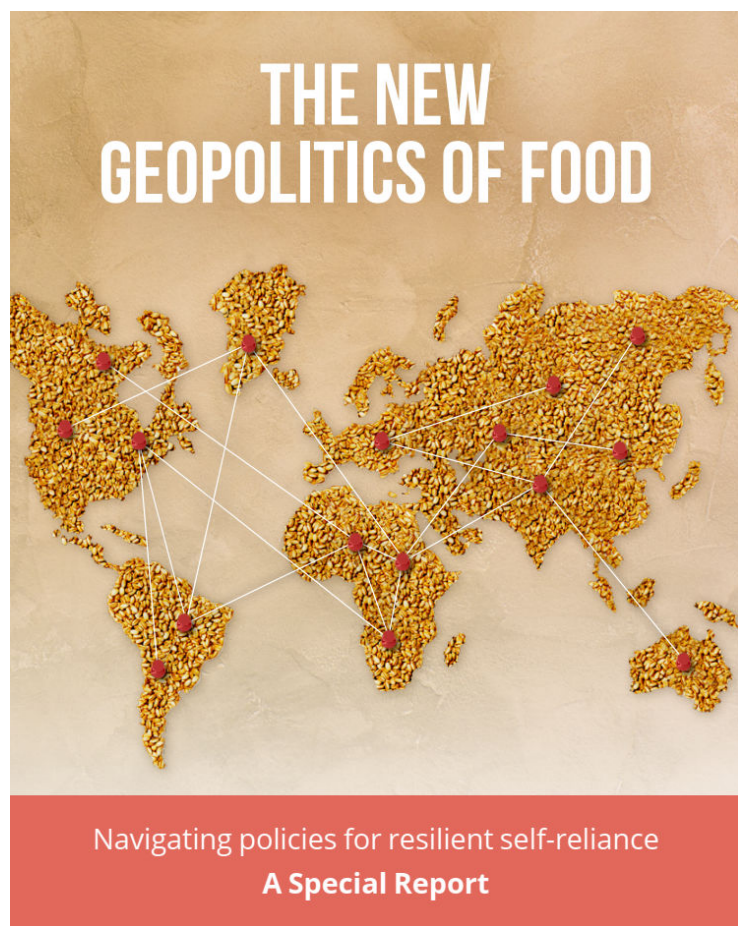
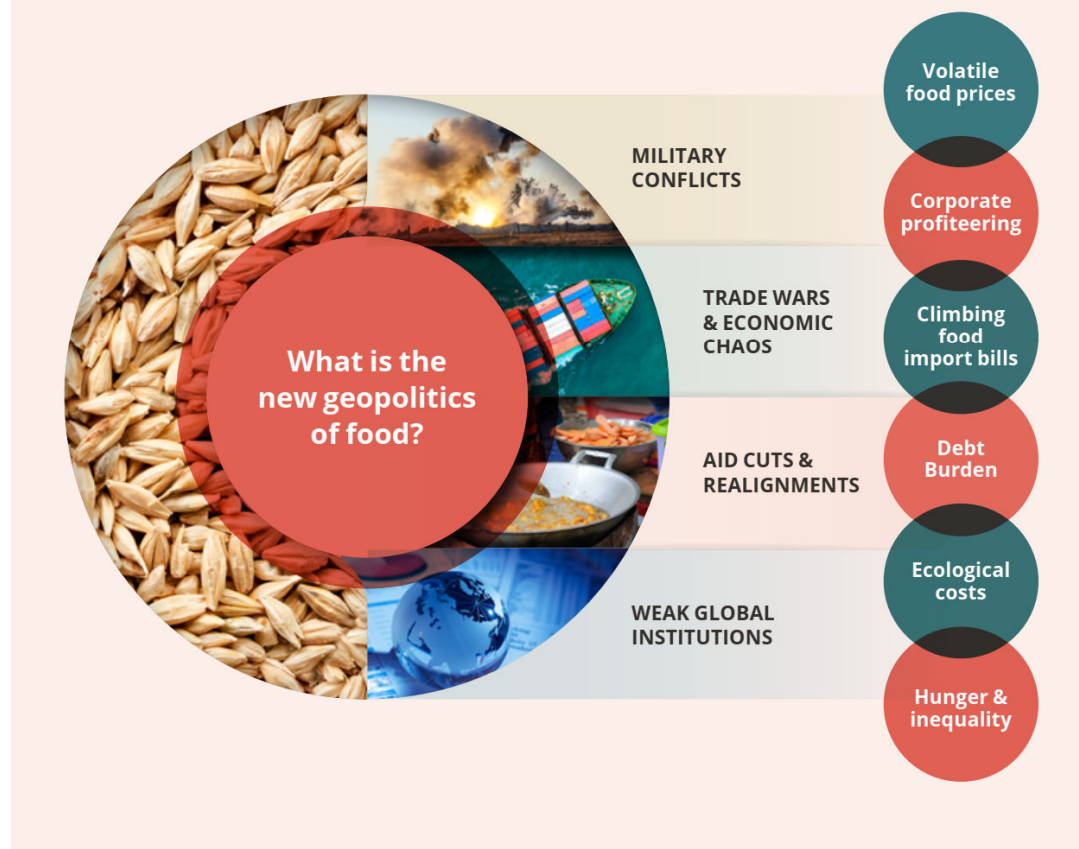


FIGURE 1
THE FORCES RESHAPING GLOBAL FOOD SYSTEMS



IPES-Food. 2026. The new geopolitics of food: navigating policies for resilient self-reliance.
<https://ipes-food.org/wp-content/uploads/2026/05/NewGeopoliticsOfFood.pdf>

Recap to think about

- Define the scope of your area and the main aim of your analysis
- Define whether you make a forecast or an analysis of the current situation.
- Which elements are part of my system?
- Organise and group the elements
- How do the elements relate to each other?
- Collect data on the elements and the relationships
- Make sure that the units of quantative data are linked to each other
- Add the data in the system map
- Use guiding questions for your analysis

References (more on the wiki)

- FAO. (2018) City Region Food System Toolkit, Assessing and planning sustainable city region food systems, publication of FAO, RUAF and Wilfrid Laurier University. <http://www.fao.org/in-action/food-for-cities-programme/toolkit/introduction/en/> - introduction (page 1-3), questions and schemes of page nrs 133 until 144.
- Virginia Polytechnic Institute and State University. (2011) Community-Based Food System Assessment and Planning - Facilitator's Guidebook, publication 3108-9029.- introduction and then continue until page 18.
- Countryside Charity (CPRE – UK) <https://www.cpre.org.uk/resources/mapping-local-food-webs-toolkit-2/> - 7 pages that explain the toolkit.