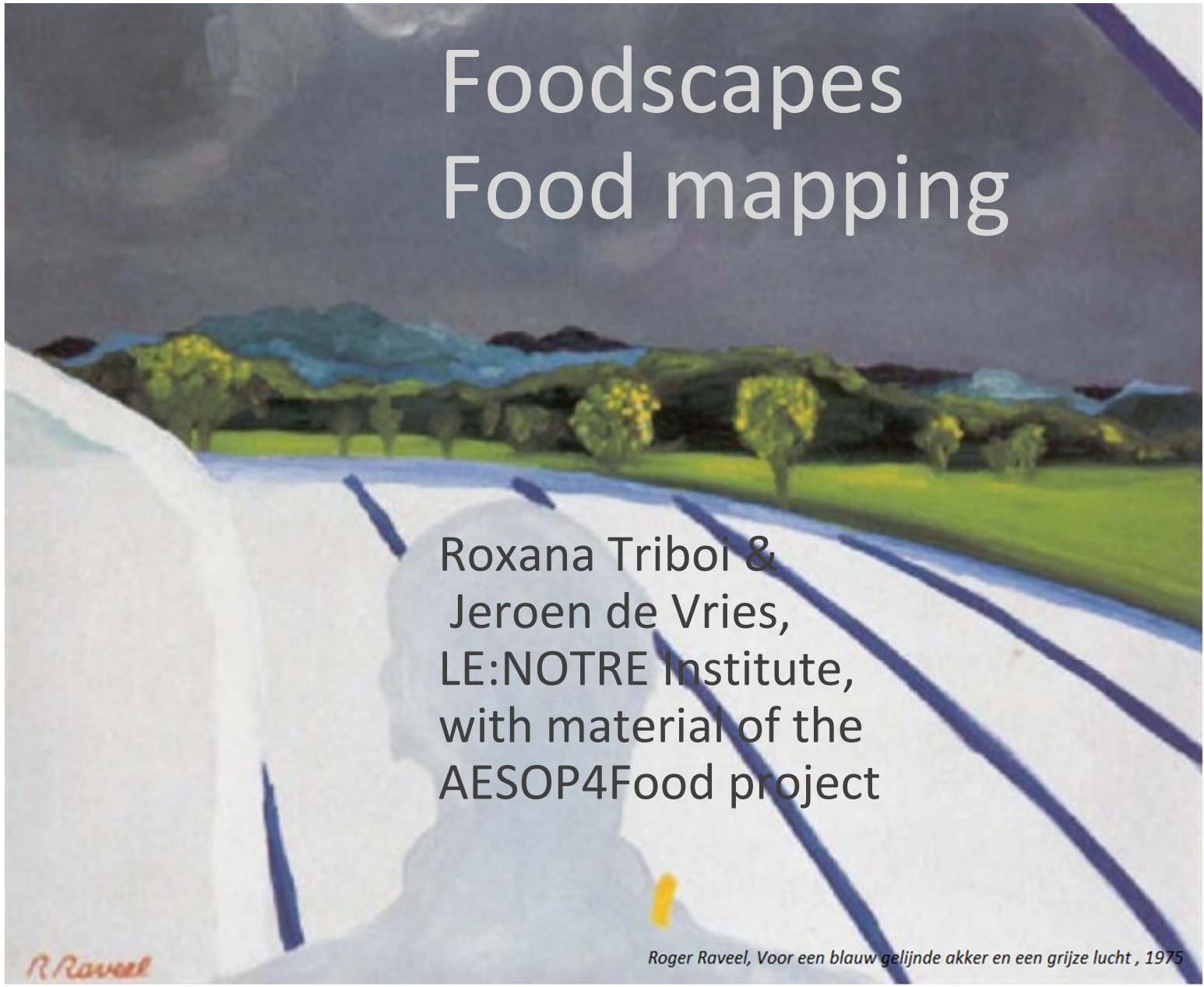
Lecture 2

Monday October 6, 2025 at 9h05 EET

MLA Vilnius Tech



Content today

- Questions on the literature
- Introduction to food system mapping
- Short poll on the literature
- Seminar on literature organisation Thursday 16th
- Showing the padlet (3 people)
- Outlook next lecture on Thursday 9 th

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.

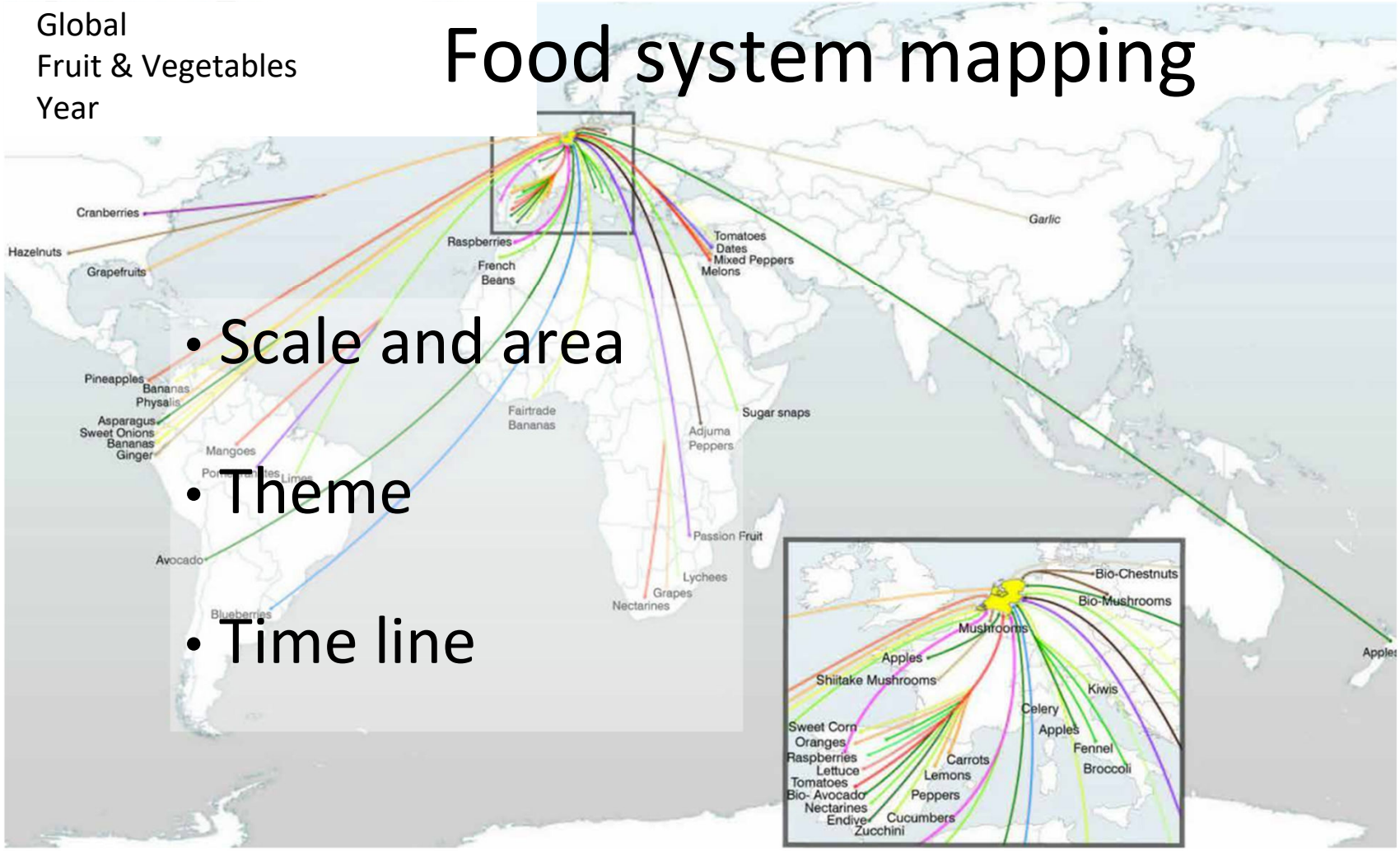
Introduction to food system mapping

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

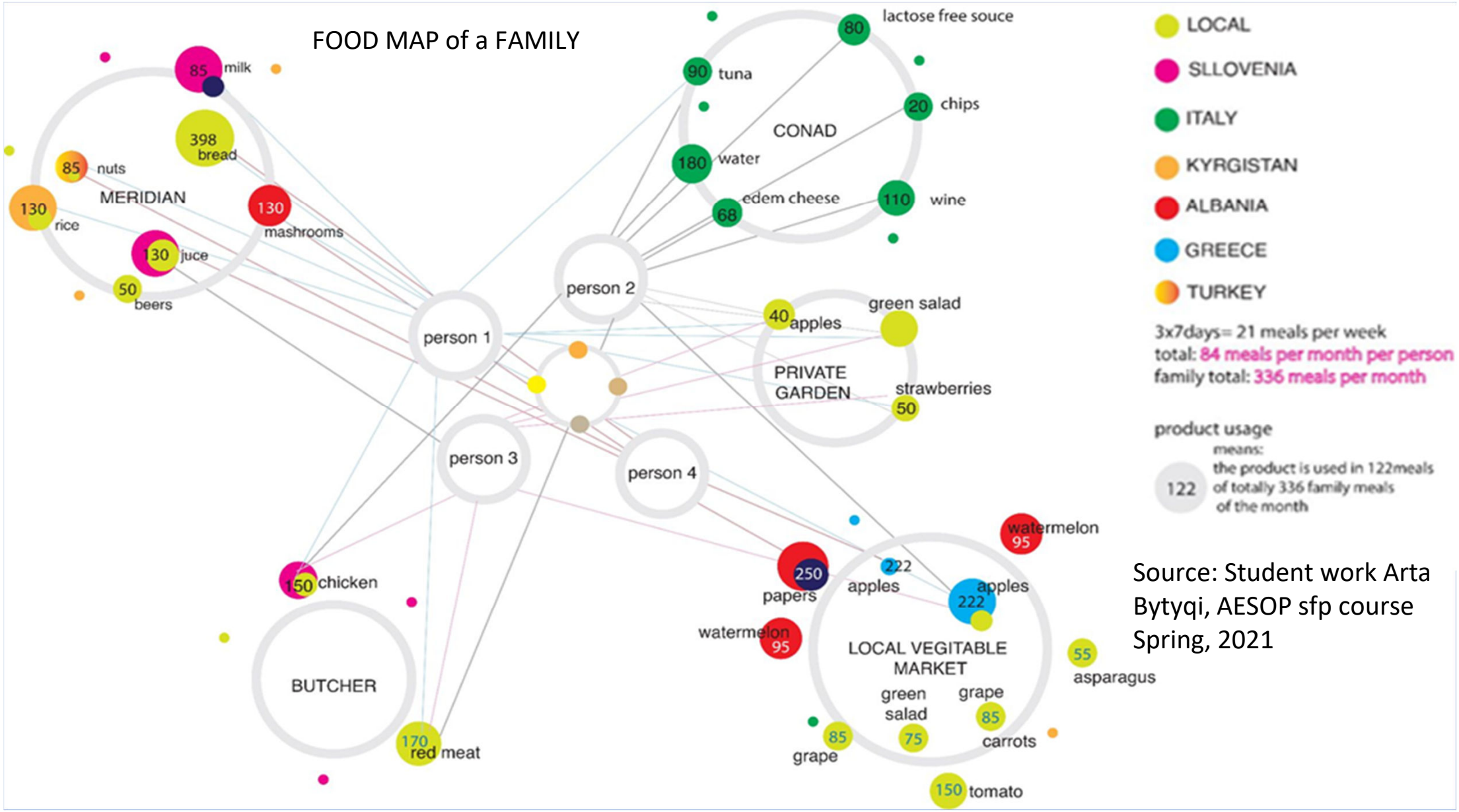
- Get an overview and impression of the area
- **Make a food system map (matrix or a graphical scheme)**
- Strengths, weaknesses, opportunities and threats of the system?
- Which aspects of sustainability are the most important from your position?
- Most important challenge for the sustainability of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

Global
Fruit & Vegetables
Year

Food system mapping



- Scale and area
- Theme
- Time line



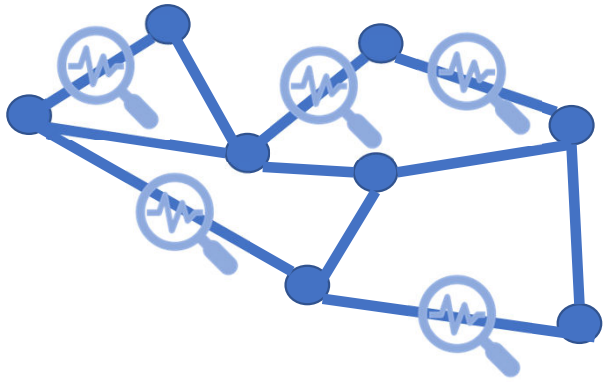
Source: Student work Arta Bytyqi, AESOP sfp course Spring, 2021

Food system mapping

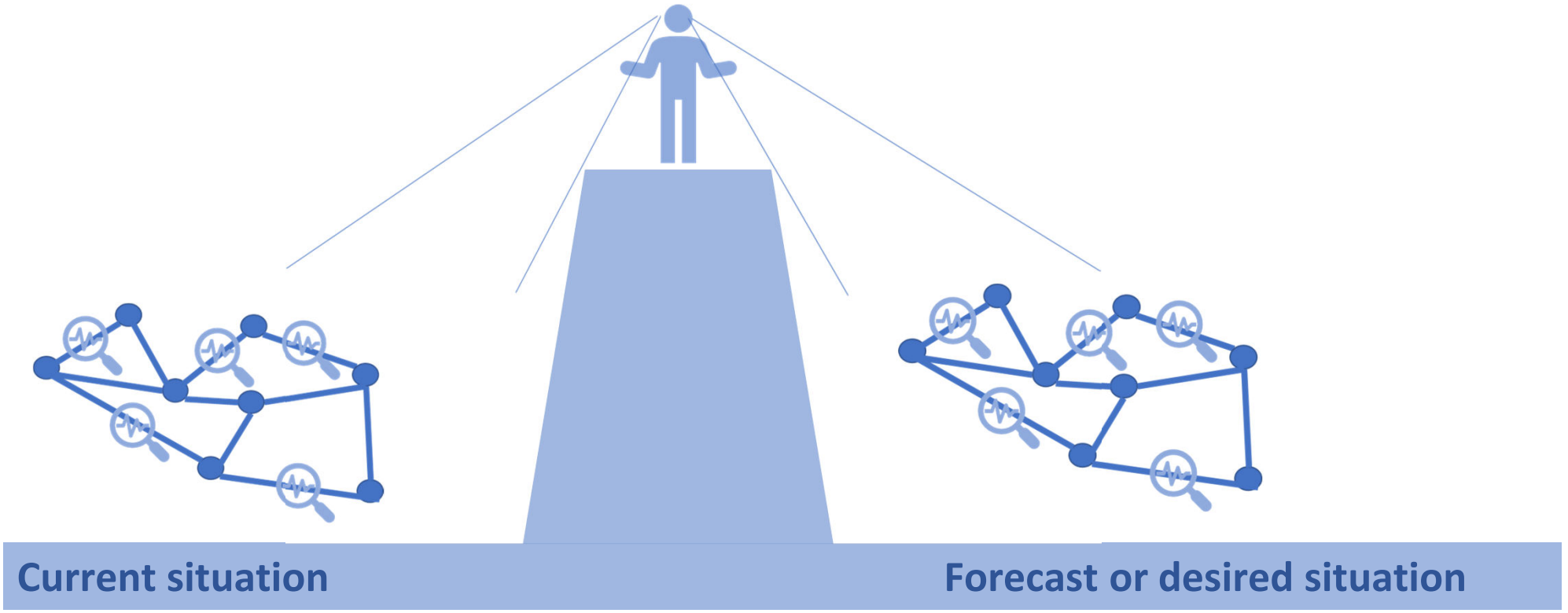
- Mapping methods for the system
- Map of the community and the main stakeholders
- Guiding questions for your analysis

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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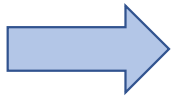

- *In canteens*
- *Foodbanks*
- *Less advantaged*
- *Tourists*
- *In restaurants*
- *Streetfood*
- *Schoollunches*
- *Prosumers*
- ……

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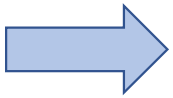
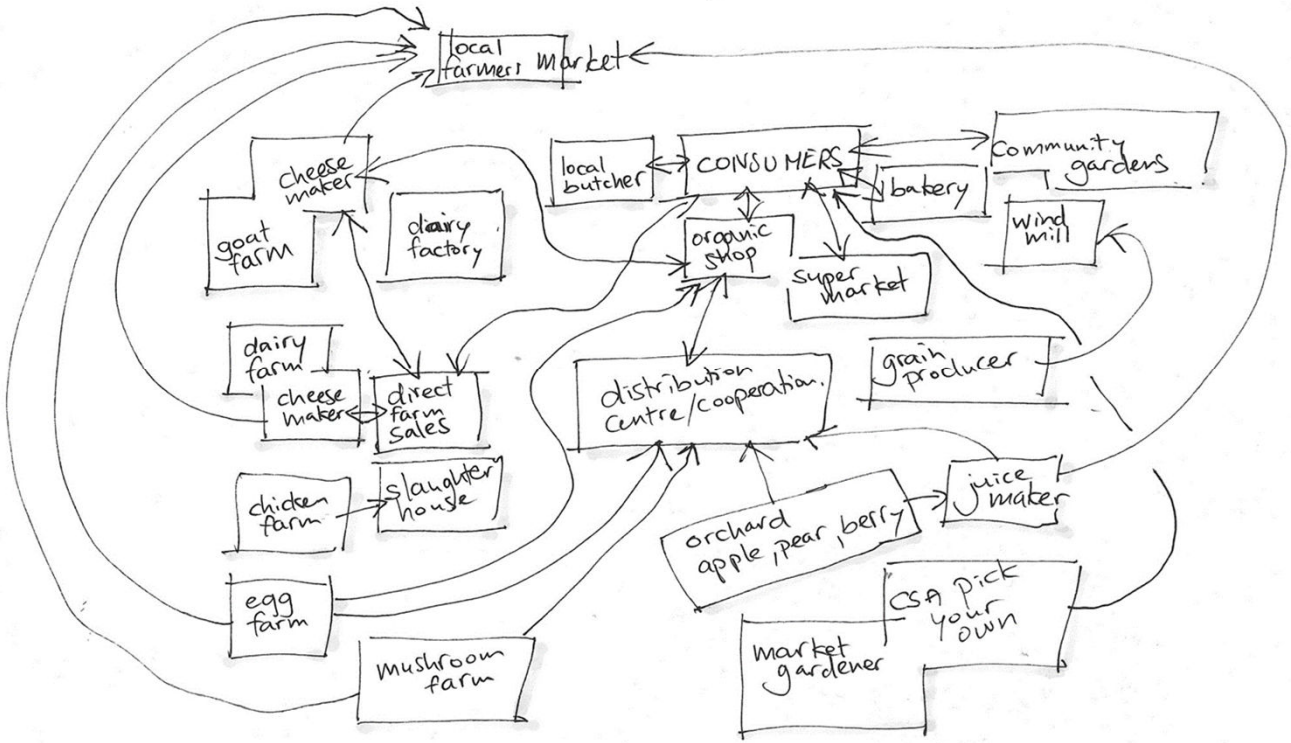


- *Export oriented*
- *Organic farmers*
- *Community Supported Agriculture*
- *Farmers open for transition*
- *Urban farmers*
- *Care farms*

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

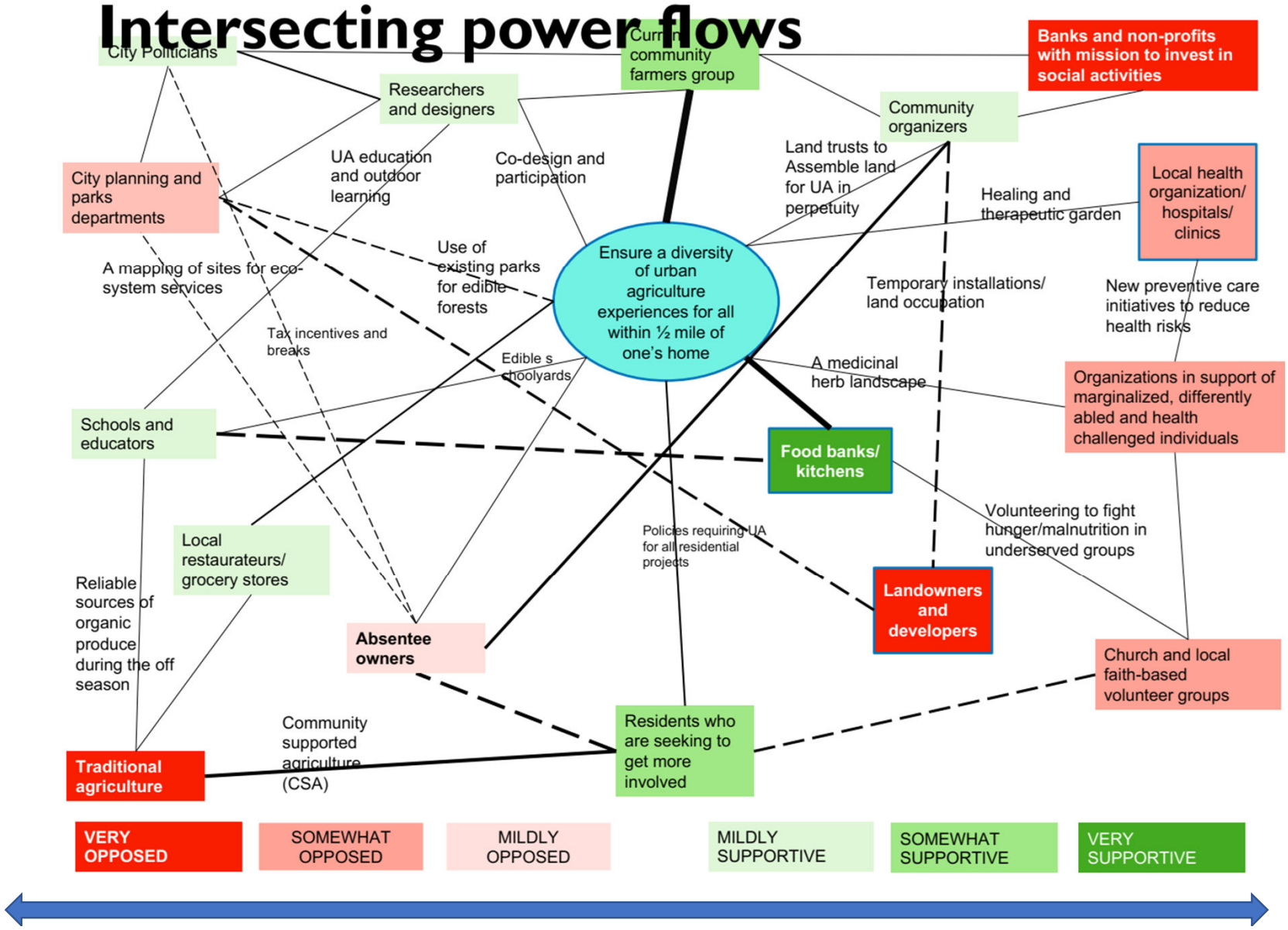


Step 3: how do the elements relate to each other?

- Flows, streams, processes, social relations

- Qualitative: power, regulations, laws

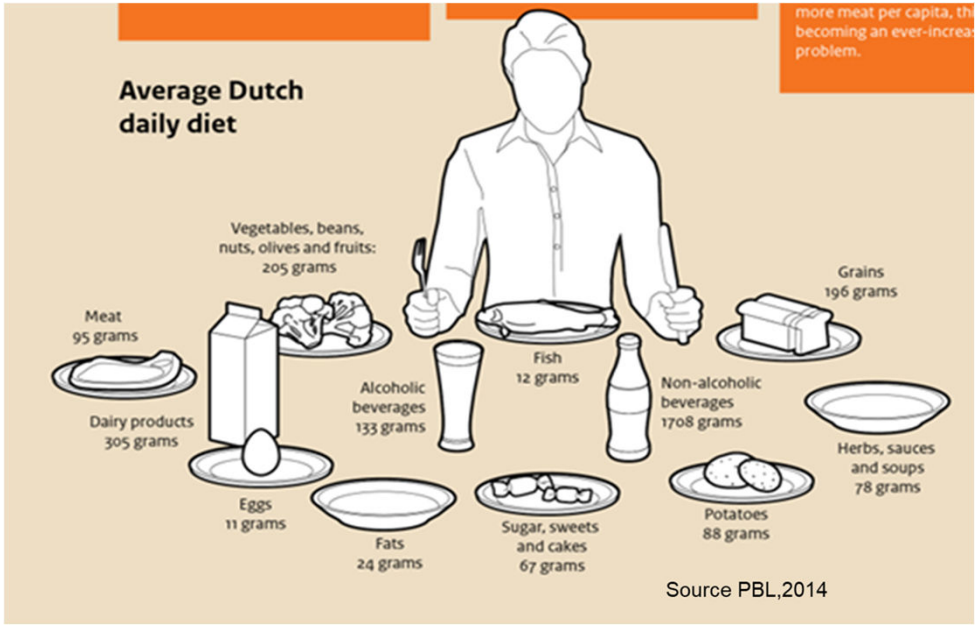
- Quantitative relations: make sure you use standard units and clear conversions



Source: Deni Ruggeri, presentation landscap 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 quantative 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)

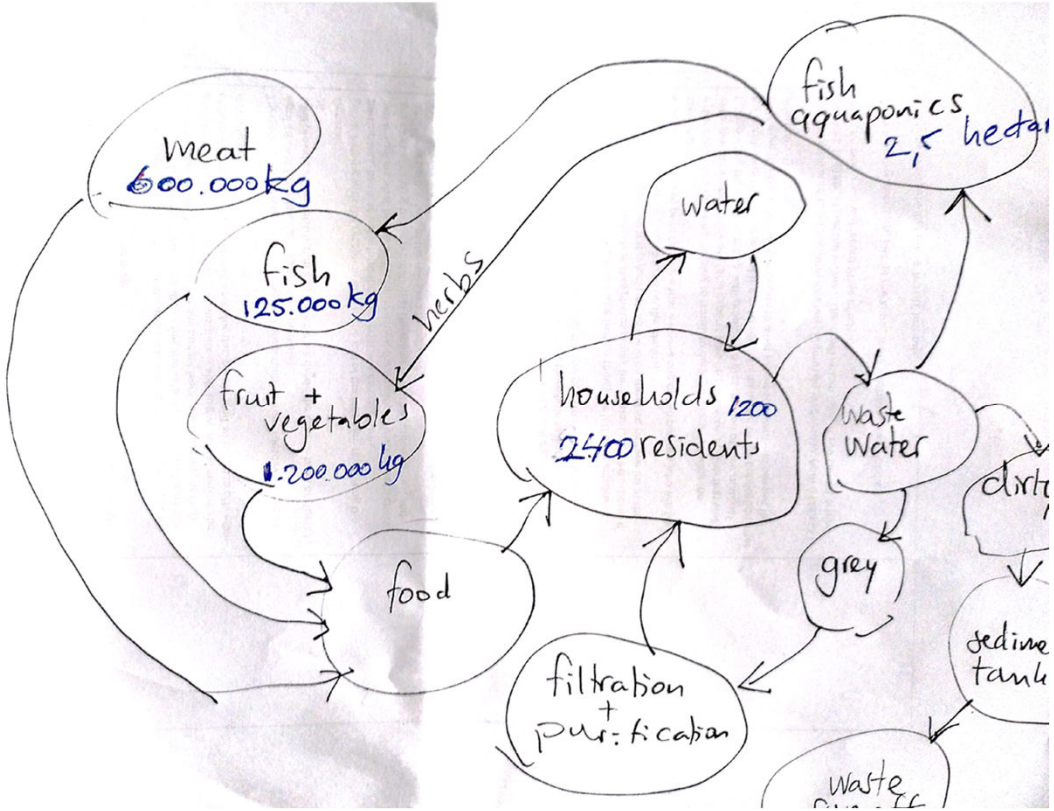
) the sources of the key figures can be found in the Excel file of the local urban food calculator

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

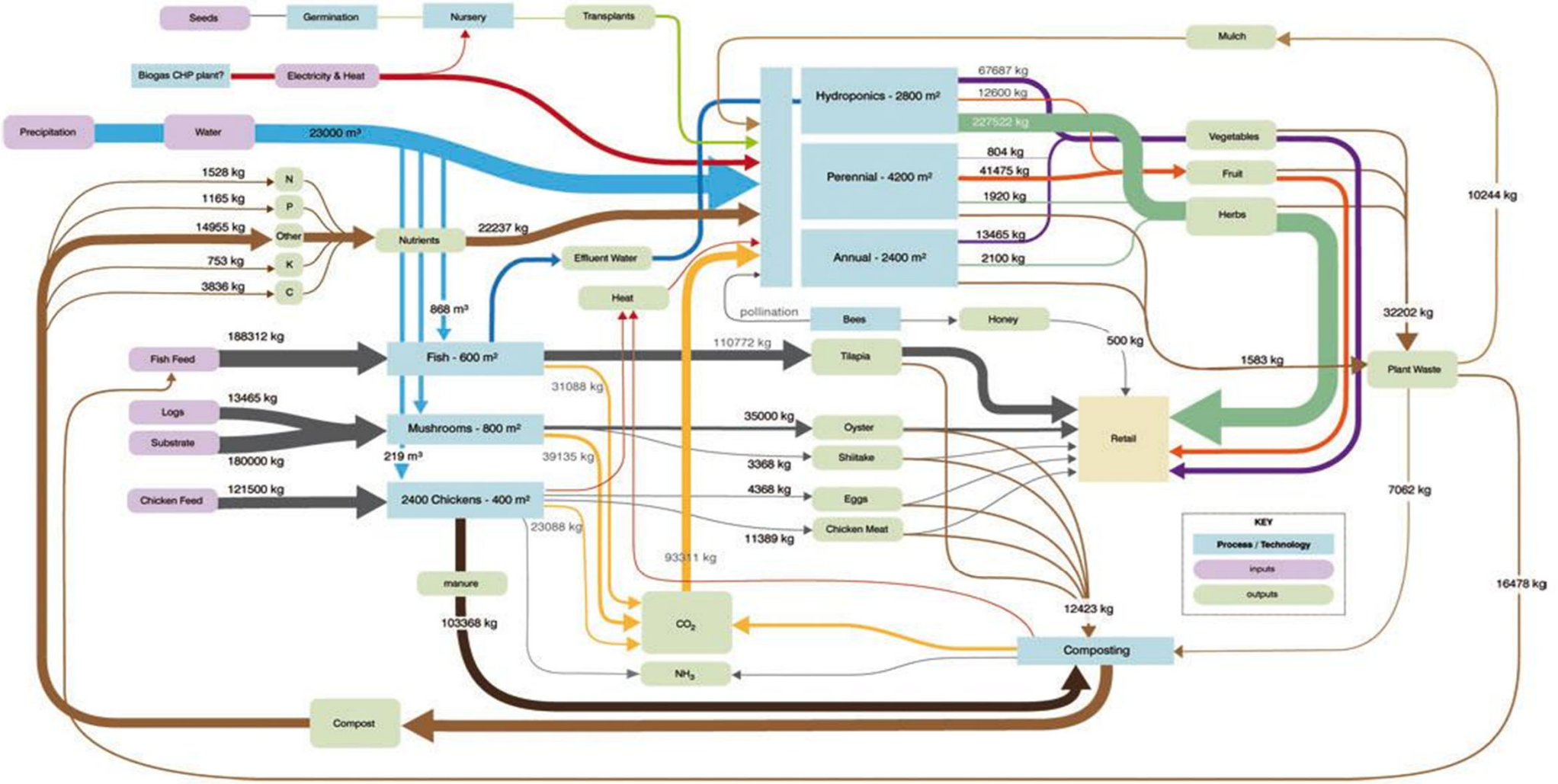
Step 6 Add the data in the system map

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



Polydome Material Flow Diagram

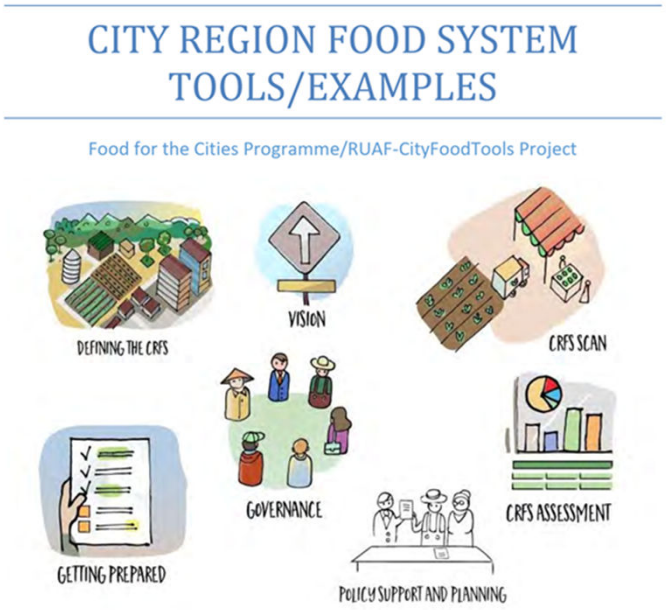
EXCEPT
Integrated Sustainability Consulting & Design
 www.except.nl



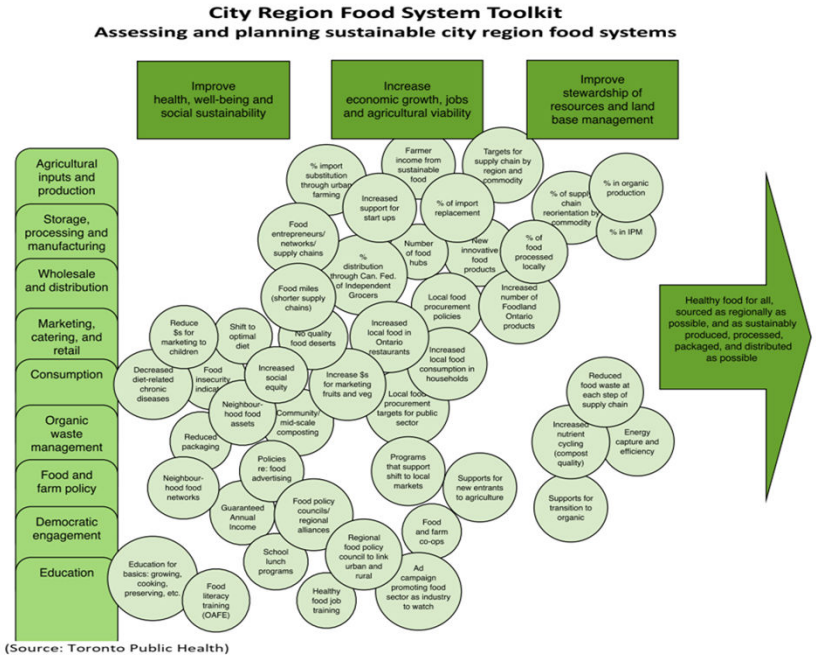
Food system mapping

Guiding questions for your analysis

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



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.

FAO, 2018, p 134

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?

FAO, 2018, p 134

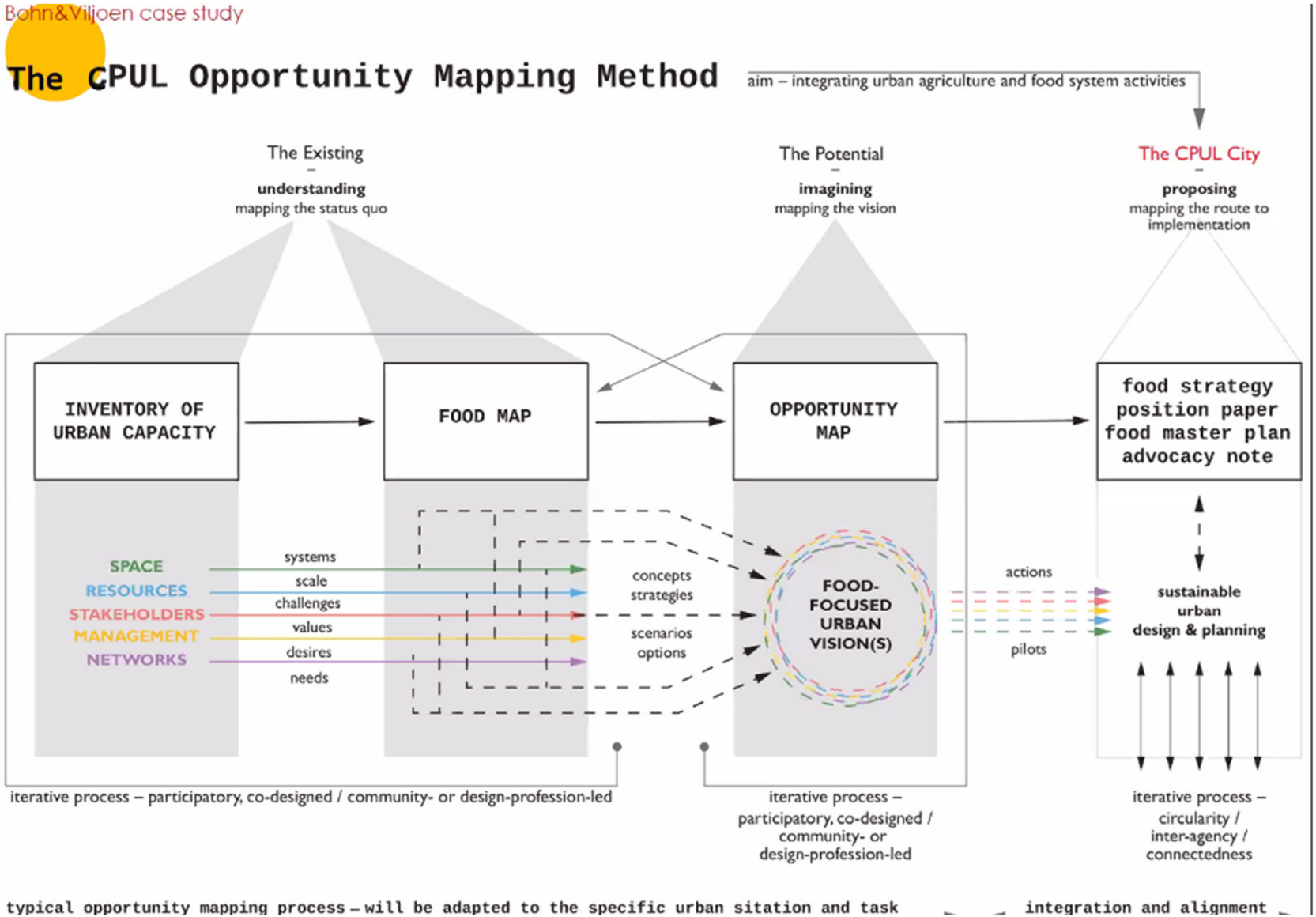
CRFS Toolkit: questions for analysis

- 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?

FAO, 2018, p 135

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
The Existing
understanding
mapping the status quo
The Potential
imagining
mapping the vision
The CPUL City
proposing
mapping the route to implementation
INVENTORY OF URBAN CAPACITY
FOOD MAP
OPPORTUNITY MAP
food strategy
position paper
food master plan
advocacy note
SPACE
RESOURCES
STAKEHOLDERS
MANAGEMENT
NETWORKS
systems
scale
challenges
values
desires
needs
concepts
strategies
scenarios
options
FOOD-FOCUSED URBAN VISION(S)
actions
pilots
sustainable urban design & planning
iterative process – participatory, co-designed / community- or design-profession-led
iterative process – participatory, co-designed / community- or design-profession-led
iterative process – circularity / inter-agency / connectedness
typical opportunity mapping process – will be adapted to the specific urban sitation 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

#1 // The orchards of Carthage

#2 // Un réseau de jardins historiques

#2 // A network of historic gardens

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

#3 // Agriculture, pillar of Carthage's economy

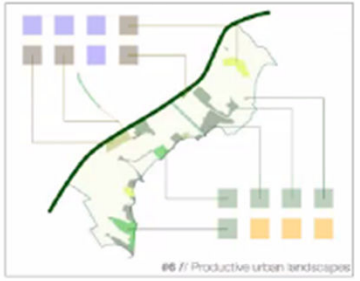
#4 // La ville auto-sufisante

#4 // The self-sufficient city

#5 // Réseaux d'alphabétisation alimentaire

#5 // Food literacy networks

#6 // Paysages urbains productifs

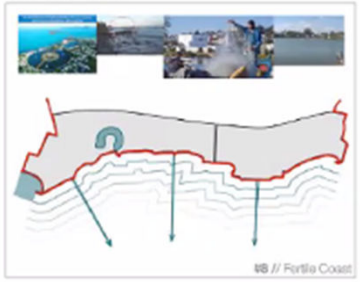


#6 // Productive urban landscapes

#7 // Le monde te soutient

#7 // The world is supporting you

#8 // Côte fertile



#8 // Fertile Coast

#9 // Une nouvelle génération d'agriculteurs

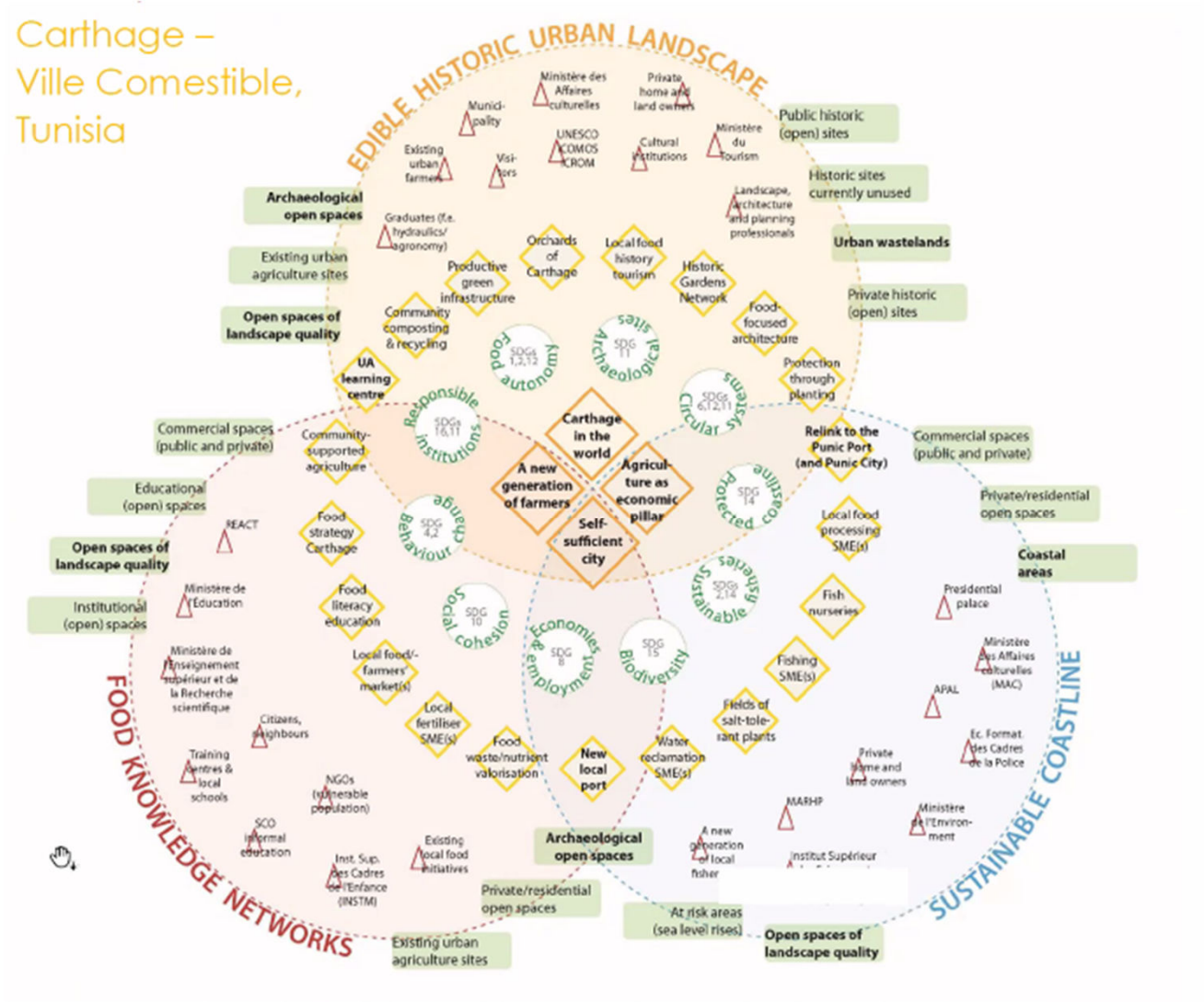
#9 // A new generation of farmers

ASSOCIATION LA RECHERCHE EN ACTION

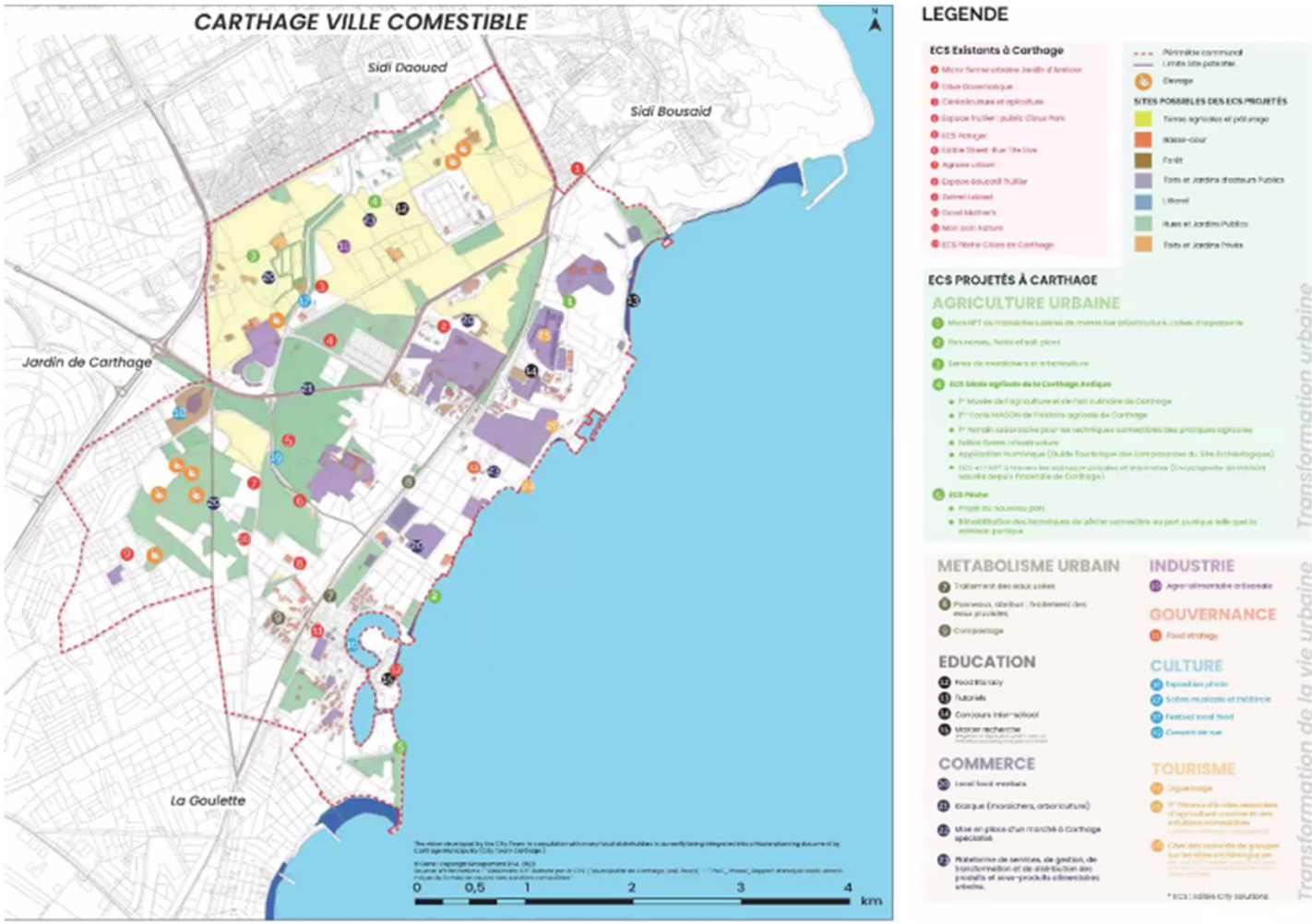
EdICINet

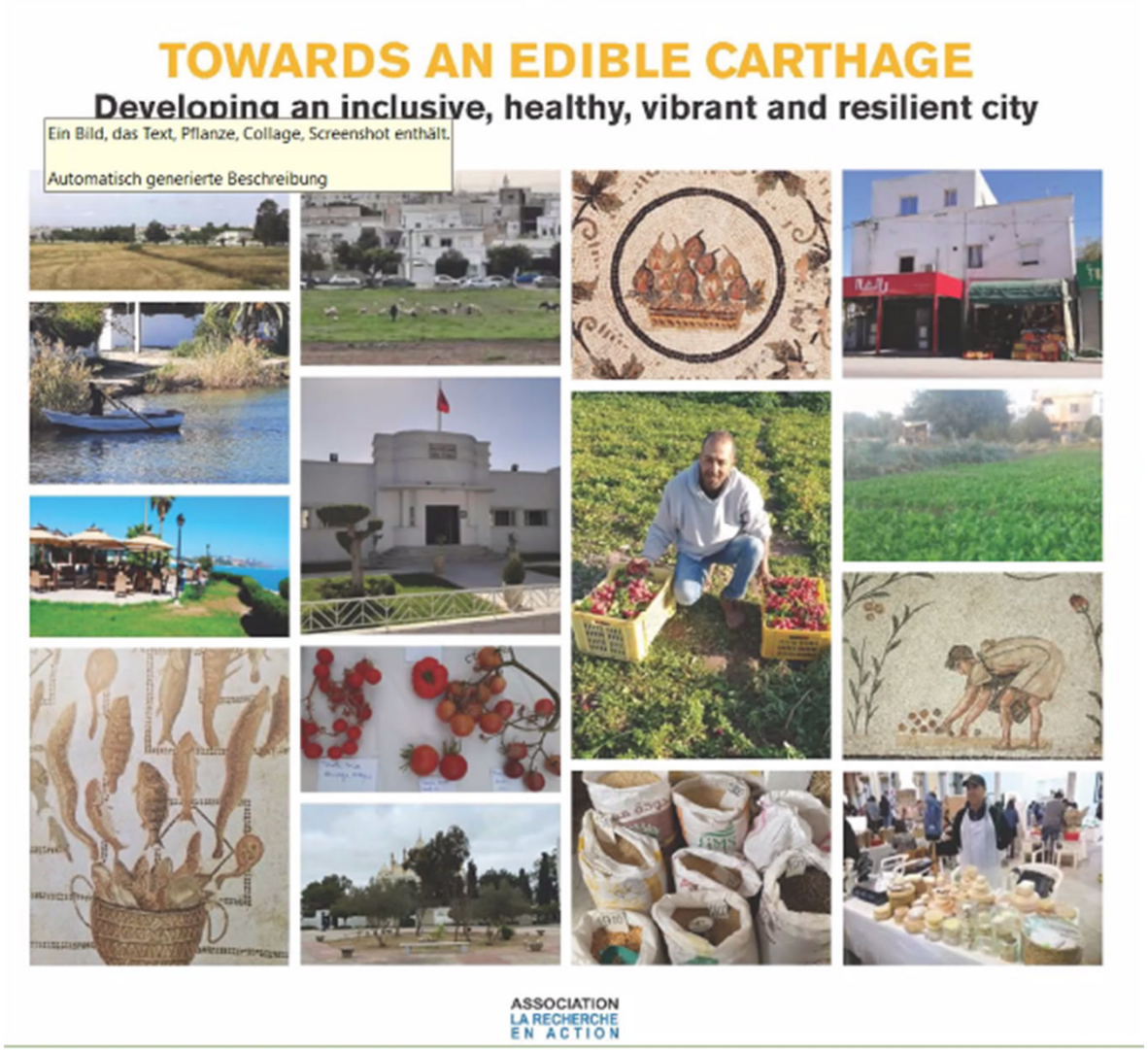
University of Brighton

page: *A food map for Carthage* – Ian Bailey, Katrin Bohn, University of Brighton and City Team Carthage – 2021



Opportunity Map (Diagram) for Carthage – Ian Bailey, Katrin Bohn, University of Brighton and City Team Carthage – 2021


CARTHAGE VILLE COMESTIBLE
Sidi Daoued
Sidi Bousaid
Jardin de Carthage
La Goulette
0 0,5 1 2 3 4 km
LEGENDE
ECS Existants à Carthage
SITES POSSIBLES DES ECS PROJETÉS
Elevage
Terres agricoles et pâturage
Basse-cour
Forêt
Toits et Jardins d'acteurs Publics
Littoral
Rues et Jardins Publics
Toits et Jardins Privés
ECS PROJETÉS À CARTHAGE
AGRICULTURE URBAINE
Transformation urbaine
METABOLISME URBAIN
INDUSTRIE
GOUVERNANCE
EDUCATION
CULTURE
COMMERCE
TOURISME
Transformation de la vie urbaine


TOWARDS AN EDIBLE CARTHAGE
Developing an inclusive, healthy, vibrant and resilient city
Ein Bild, das Text, Pflanze, Collage, Screenshot enthält.
Automatisch generierte Beschreibung
ASSOCIATION
LA RECHERCHE
EN ACTION

Short poll on the literature

Poll: How do you define agroecology?

Typ your preferred answer in the chat (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

Seminar on the reading material Thursday morning October 16th onsite in VilniusTech

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 morning October 16th onsite in VilniusTech

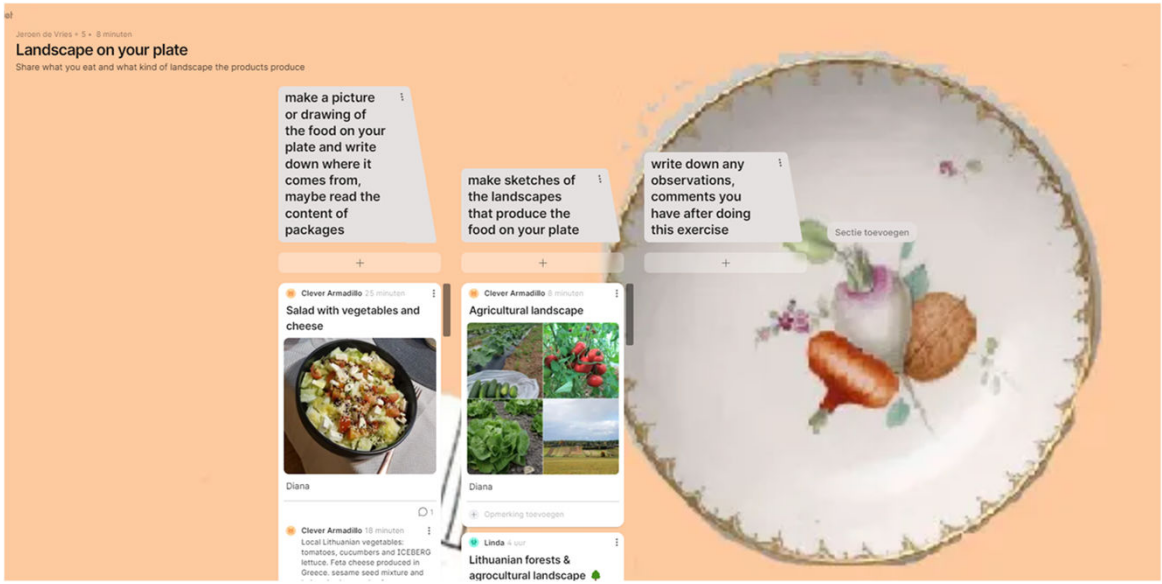
	Augustinas	Barbara	Baltrus	Dominikas	Ieva	Redas	Vaida
IPES report A Long Food Movement.							
Deh-Tor, C.M. . 2017 From Agriculture in the City to an Agroecological Urbanism							
FAO Report : "Integrating food into urban planning" page 18 – 32							
Posthumus, H., et al. (2018). Food systems: From concept to practice and vice versa.							
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.							
Menatti. L. (2017). Landscape: from common good to human right. International Journal of the Commons Vol.11, no2 2017, p649 – 659							
The role and functions of Stakeholders in the development of local food systems: Case of Lithuania.							

Show your plate:

https://padlet.com/geronimo2/landscape-on-your-plate-7hsu4djzr0ln5n8n

The assignment is meant to have more awareness of where your food comes from and what kind of landscapes these create

If you did not add a plate yet, please do before October 9.



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

- 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.

Next lecture Thursday October 9, 14h30 EET

Food governance, food councils - examples and principles

Every student has selected his/her text for the seminar

Presenting landscape on your plate