

Feeding Cities 2024



#FeedingCities2024

Seeds of Change: Transforming Food Systems

📅 **Thursday, July 11th**

9:30 – 13.30 CET

📍 **Online**

Feeding Cities 2024 will begin soon...



Feeding Cities 2024

Seeds of Change: Transforming Food Systems



#FeedingCities2024

Agenda July 11 2024 | 9:30 – 13:30 CET

9:35-10:30 Opening Keynote:

“Building Bridges to Social Movements for radical re-imagination of new food systems”

by *Emma Haske from FOSTER Food System Project*

10:30-11:45 Hungry for Exchange - interactive webinar

“Waste-Less Cities: Smart Solutions for Urban Food Sustainability”

with Living Labs representatives from Athens and Rijeka

12:00-13:30 Peer-led Discussion Sessions

Lively, small-group discussions around the four core themes of the conference



House Rules



Feeding Cities 2024

Seeds of Change: Transforming Food Systems

July 11 2024 | 9:30 – 13:30 CET



#FeedingCities2024

Opening Keynote:

Building Bridges to Social Movements for radical reimagination of new food systems

How can we, as change-makers,
push for **transformation** within
the context of **institutional**
constraints and norms?



Emma Haske

Anthropologist and Development Sociologist
FOSTER Food System Project | VU

Feeding Cities 2024

Seeds of Change: Transforming Food Systems

July 11 2024 | 9:30 – 13:30 CET



#FeedingCities2024

 Hungry for Exchange interactive session

Waste-Less Cities: Smart Solutions for Urban Food Sustainability



Emira Brkić Karninčić
Sustainable urban development
researcher in Rijeka, Croatia

A green signpost with a white rectangular sign that reads 'Rijeka' in bold green letters. The signpost is set against a background of a stylized cityscape with blue and white buildings, green hills, and a winding road. In the foreground, there are small figures of people and a red tractor.

Rijeka

Rijeka's ways of dealing with food waste!

***Food Waste Analyzer and the
Sustainable Cookbook.***

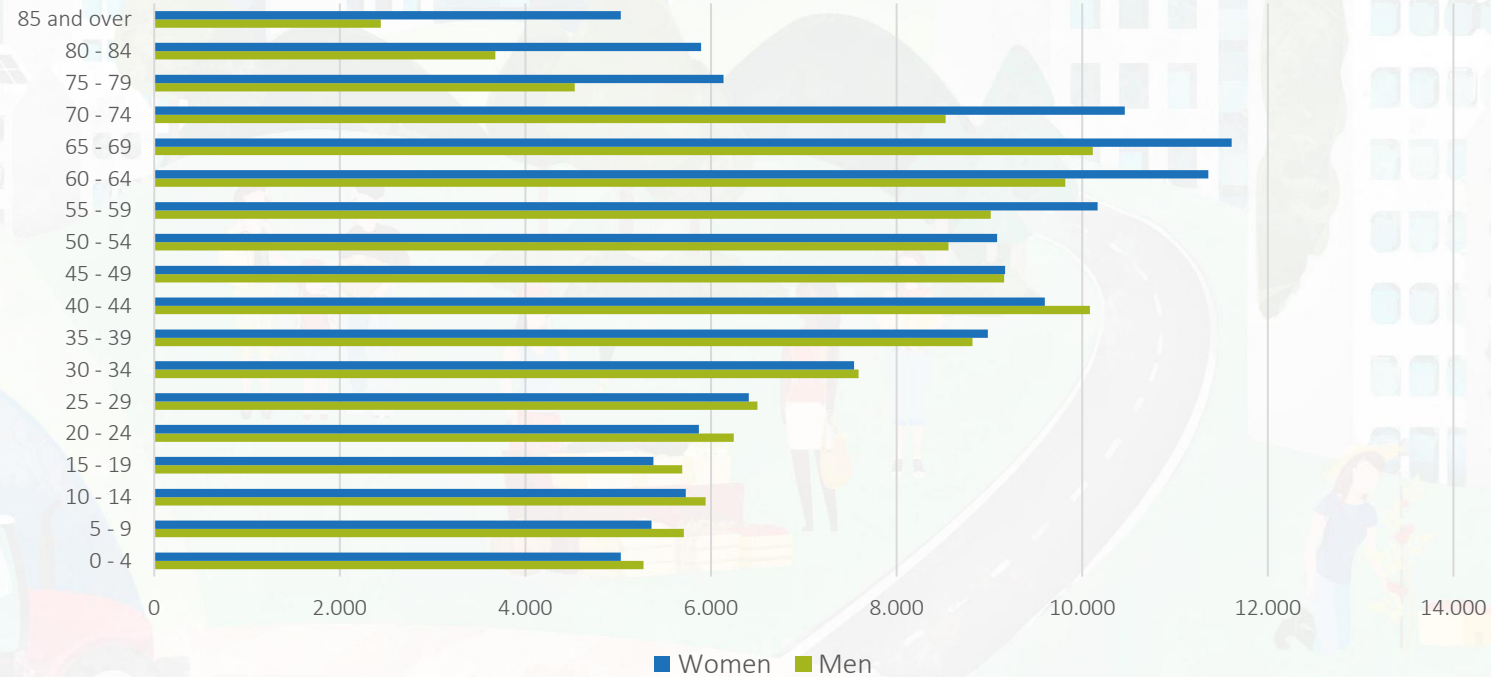
Emira Brkić Karninčić



The City of Rijeka

According to the 2021. census Rijeka as an administrative area has **107.964** residents. This number of residents is living in **63.333** housing units.

Residents of Rijeka - sex and age data 2021.



Food Waste Challenges in Rijeka

! People's habits !

- Food waste management is **not a priority on a national level** amidst the economic crisis – latest research from 2021.
- Waste separation (households) is **not mandatory!**
- Why should I?

! Paying a fixed price no matter the amount of waste produced !

Food Waste Challenges in Rijeka

- January 2024 - the City of Rijeka introduced a **personalized waste collection system**, which is being implemented progressively across local communities.
- Waste control, prevention of unauthorized use of containers, expected increase of the quantity and quality of separately collected recyclable fractions.
- Users will be provided with **designated waste containers** (family houses and multi-residential buildings).
- Start from the city's outskirts and gradually move towards the center, ensuring the new waste collection system aligns with the new disposal methods introduced in the surrounding areas.

! Paying a price depending on the amount of waste produced !

The idea behind the FOOD WASTE ANALYZER APP?



- 1) It can change the **culture** of planning, consuming, and disposing of food.
- 2) Also, users form a more thoughtful attitude towards purchases and spending.
- 3) Users begin to think about the problem of food waste and their **responsibility** to society. And by **sharing their experience** with friends and on social networks, they can provoke changes.
- 4) Some apps allow users to share food with their neighbors or donate it to those in need, building social contacts.

Food Waste Analyzer App

Main app function – to enable users to monitor their food management – **entering quantities** after purchase and **entering expended quantities** after consumption or throwing away.

App goals

- Relevant data
- Raising awareness
- Better control
- Education

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	44	16.07.2023	4	Pregled	Kupovina

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<input type="checkbox"/>	<div></div>	Voće: Banane (KG)	1.00

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How it works

- Input
- **option of users own input of other foods
- **After use** – food spent - **Output**
- They provide % of how much was actually used
- App calculates the %
- **Online Pantry**
- **User** has access to their data and a graphic view of how much was thrown away
- **Admin** – has access to cumulative data of all users

User activity

Food Waste Analyzer

Pregled utrošenih namirnica

	ID	Korisnik	Datum	Namirnica		Opis
				Ostalo		
	158	Mia B (miespish@gmail.com)	21.05.2024	4	Pregled	6
	161	Emira (emir.veneta.brikic.kamenc@gmail.com)	13.02.2024	3	Pregled	2
	167	Mia B (miespish@gmail.com)	09.02.2024	3	Pregled	5
	169	David Benković (david.benkovic2@gmail.com)	20.01.2024	7	Pregled	Ružak + solna rošeta
	165	Mia B (miespish@gmail.com)	19.01.2024	2	Pregled	4
	166	David Benković (david.benkovic2@gmail.com)	05.01.2024	4	Pregled	Kasni ružak
	164	Mia B (miespish@gmail.com)	29.12.2023	2	Pregled	3
	163	Mia B (miespish@gmail.com)	01.12.2023	3	Pregled	2
	162	Mia B (miespish@gmail.com)	21.11.2023	4	Pregled	1
	141	Vesna Antkowić (j...	20.09.2023	3	Pregled	za gost 3

Output example

Namirnica	Količina	Kol. (ost)	Iscorišćeno (%)
Masnoće: Uje od suncokreta (L)	0.20	0.00	100.00
Voće: Banane (KG)	0.60	0.70	80.00
Voće: Jabuke (KG)	0.40	0.60	100.00
Svežulj: Hrana: Piletići (KG)	0.50	0.50	75.00

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Release 1.0 Built with ♥ using Oracle APEX

The App

Food Waste Analyzer

nenad.antolovic@smart-ri.hr

Naslovna

Ulaz

Pregled

Izlaz

Analiza

Postavke

Administracija

Pregled dobavljenih namirnica

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<div><div></div><div></div><div></div></div>	101	Nenad Antolović (nenad.antolovic@smart-ri.hr)	19.09.2023	4	Pregled	drugi dan
<div><div></div><div></div><div></div></div>	81	Nenad Antolović (nenad.antolovic@smart-ri.hr)	12.09.2023	4	Pregled	Za graf

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Nova namirnica

The App

Food Waste Analyzer

nenad.antolovic@smart-ri.hr

Naslovna

Ulaz

Izlaz

Pregled

Analiza

Postavke

Administracija

Pregled utrošenih namirnica

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	Id	Korisnik	Datum	Namirnice	-	Opis
	141	Nenad Antolović (nenad.antolovic@smart-ri.hr)	20.09.2023	3	Pregled	za graf 3
	121	Nenad Antolović (nenad.antolovic@smart-ri.hr)	19.09.2023	3	Pregled	za graf 2
	101	Nenad Antolović (nenad.antolovic@smart-ri.hr)	12.09.2023	4	Pregled	Za graf

1 - 3

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Q	Search: All Text Columns	Go	Actions	Edit	Save	Add Row	Reset
<input type="checkbox"/>		Namirnica	Količina	Kol. (ost)	Iskorišteno (%)		
<input checked="" type="checkbox"/>		Umaci i začini: Umaci na bazi rajčice (KG)	0.40	0.00	95.00		
<input type="checkbox"/>		Voće: Mandarine (KG)	1.00	1.00	100.00		
<input type="checkbox"/>		Mlijeko i mliječni proizvodi: Kefir (L)	0.20	0.30	70.00		

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The App

Food Waste Analyzer

nenad.antolovic@smart-ri.hr

Naslovna

Ulaz

Izlaz

Analiza

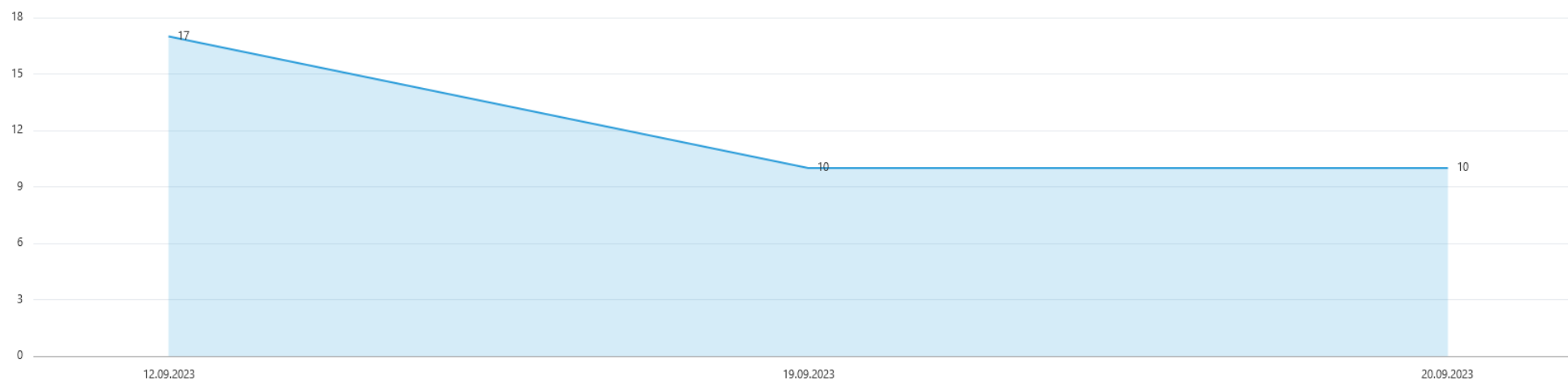
Praćenje otpada hrane (%)

Postavke

Administracija

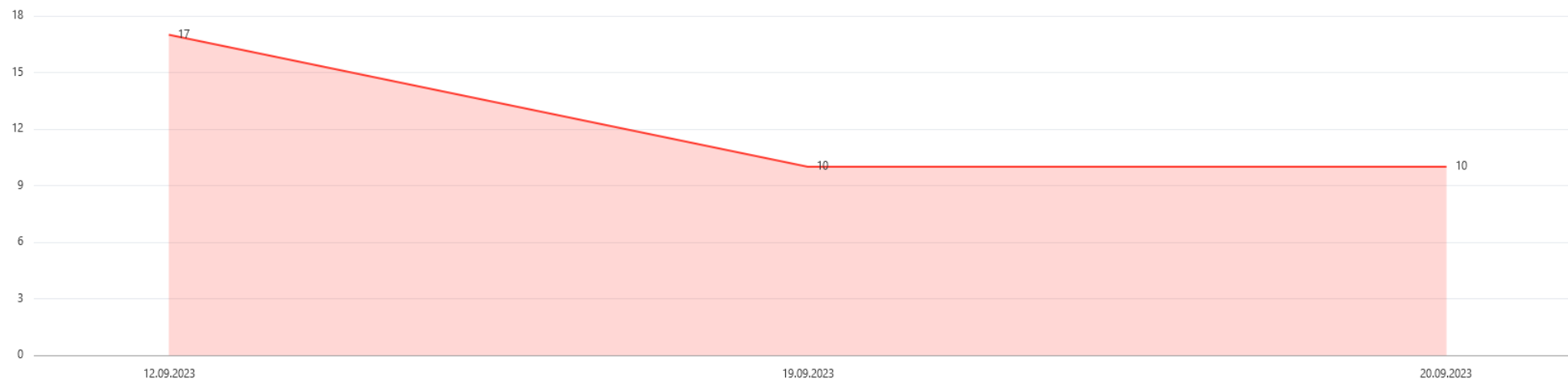
Praćenje otpada hrane (%)

Praćenje otpada hrane (%)



The App

Praćenje otpada hrane - sveukupno (%)



General issues/Challenges

- Data and Inputs: Balancing Necessity and Usability
- User Autonomy: Preprogrammed Features and Customization
- Versatility: Usable for Both Households and the Hospitality Sector
- Added Value for Users: Beyond Data Collection
- € VS. Kg's

Future development ideas/prospects

Expiry date entries -
predictions/prompts
to users.

Barcode Scanner -
information about the
product's

Gamification - reward
methods

Bonus programme - offer
worthwhile bonuses for
some actions,

Recipe ideas
depending on what is
in users app pantry

!Platform and business model.....

The Cookbook?

- 24 recipes
- Tips
- Food preservation and storing
- Potatoes, tomatoes, garlic, cucumbers, and onions should never be refrigerated but kept at room temperature
- Ethylene promotes the ripening of food and can lead to spoilage. Foods that produce ethylene during ripening include **bananas, avocados, tomatoes, melons, peaches, pears, and green onions**

Thank you!

Suzana Belošević – suzana.belosevic@rijeka.hr

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Emira Brkić Karninčić- emira.brkic.karnincic@smart-ri.hr

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Feeding Cities 2024

Seeds of Change: Transforming Food Systems

July 11 2024 | 9:30 – 13:30 CET



#FeedingCities2024

 Hungry for Exchange interactive session

Waste-Less Cities: Smart Solutions for Urban Food Sustainability



Giorgos Keranis

Action Research

Practitioner for sustainable food
systems for Athens, Greece

A stylized illustration of a city skyline with various buildings, some with solar panels. In the foreground, there are green rolling hills with trees. A family of three (a woman, a child, and a man) is walking on a path. A red tractor is visible at the bottom left. A large green sign with a white border and the word "Athens" in green script is positioned in the bottom right corner.

Athens

City of Athens Goal



Dealing with food waste

In need of a food culture paradigm change



Athens – Population

Population

±650.000 residents
7 mil tourist overnight / year
+20.000 per day
+ working commuters
+ visitors from Attiki

± 900.000 / day



Challenges in food waste management

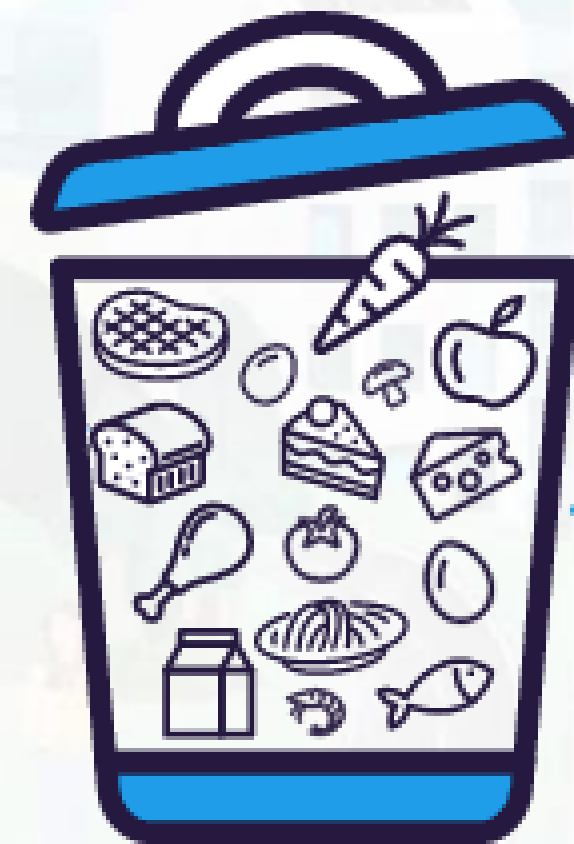
1. Food surplus management
2. Food going to waste

Athens food waste per resident = 193 kg / year
(including food consumed by tourists, working commuters, daily visitors)

Food waste per person in household = 87 – 90 kg per year (household research results)

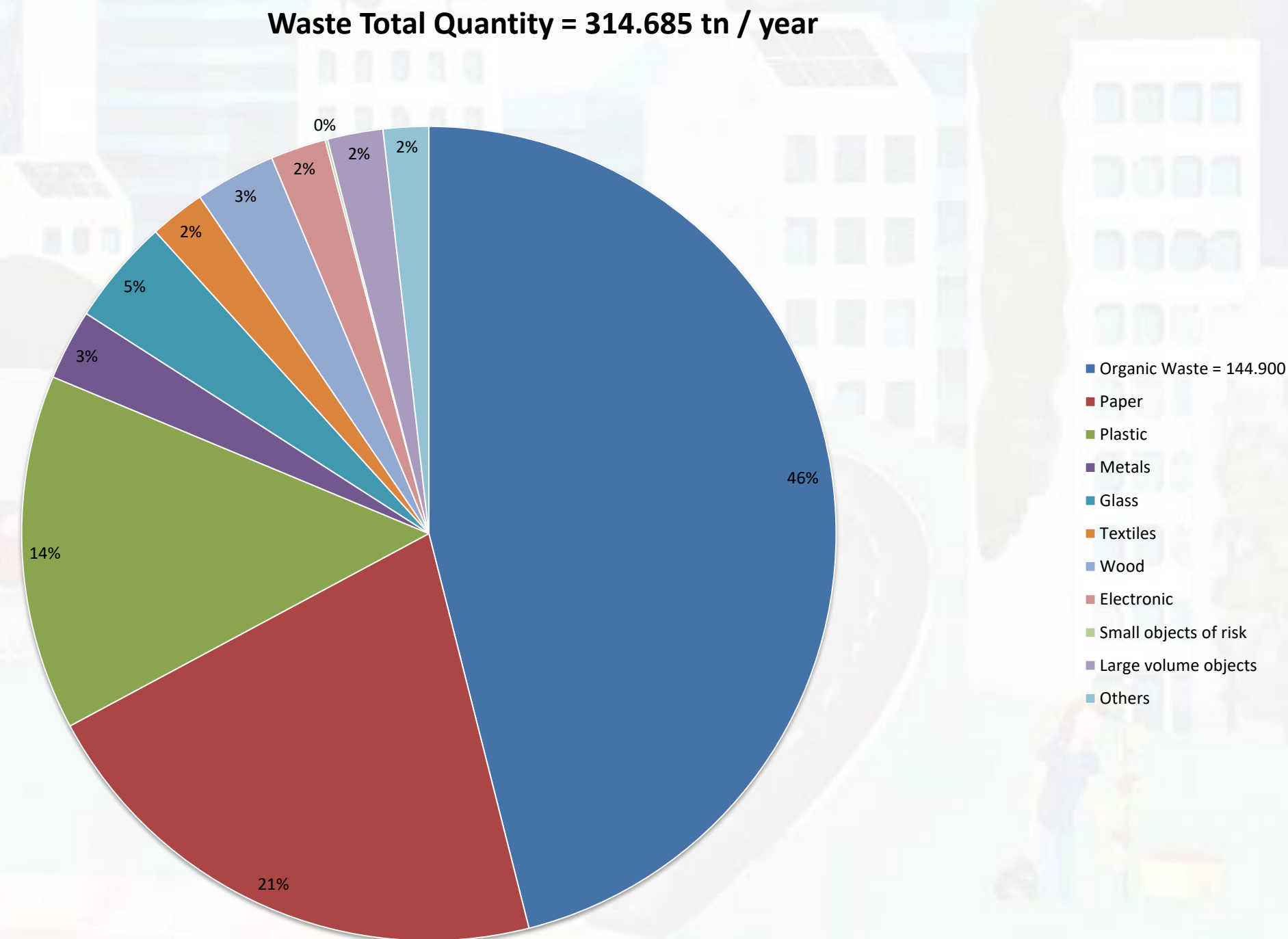
Estimate: 40% of food waste can be saved.

Source: www.foodsavingallianvegreece.gr Food Waste Policy Brief, WWF, 2023



35,6 κιλά σε λαχανικά
24,8 κιλά σε φρούτα
22 κιλά σε αρτοσκευάσματα
20 κιλά σε γαλακτοκομικά
12,4 κιλά σε ζυμαρικά και ρύζι
10,8 κιλά σε πατάτες
10,4 κιλά σε κρέας και ψάρι
4,4 κιλά σε αβγά

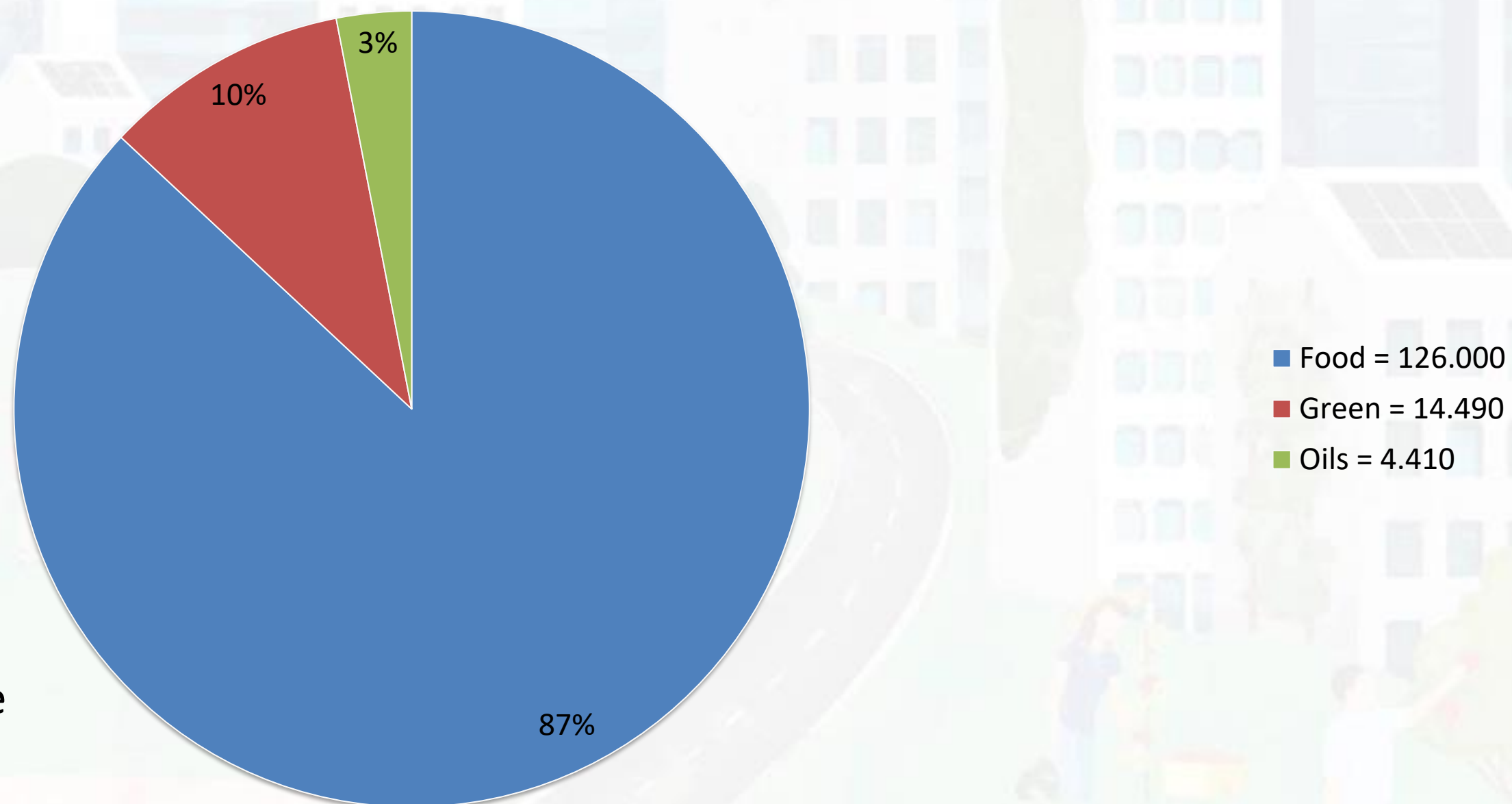
Food Waste data



Source: City of Athens, Directorate of Cleaning and Recycling, Waste Management Local Action Plan, 2021, p.p.59-60

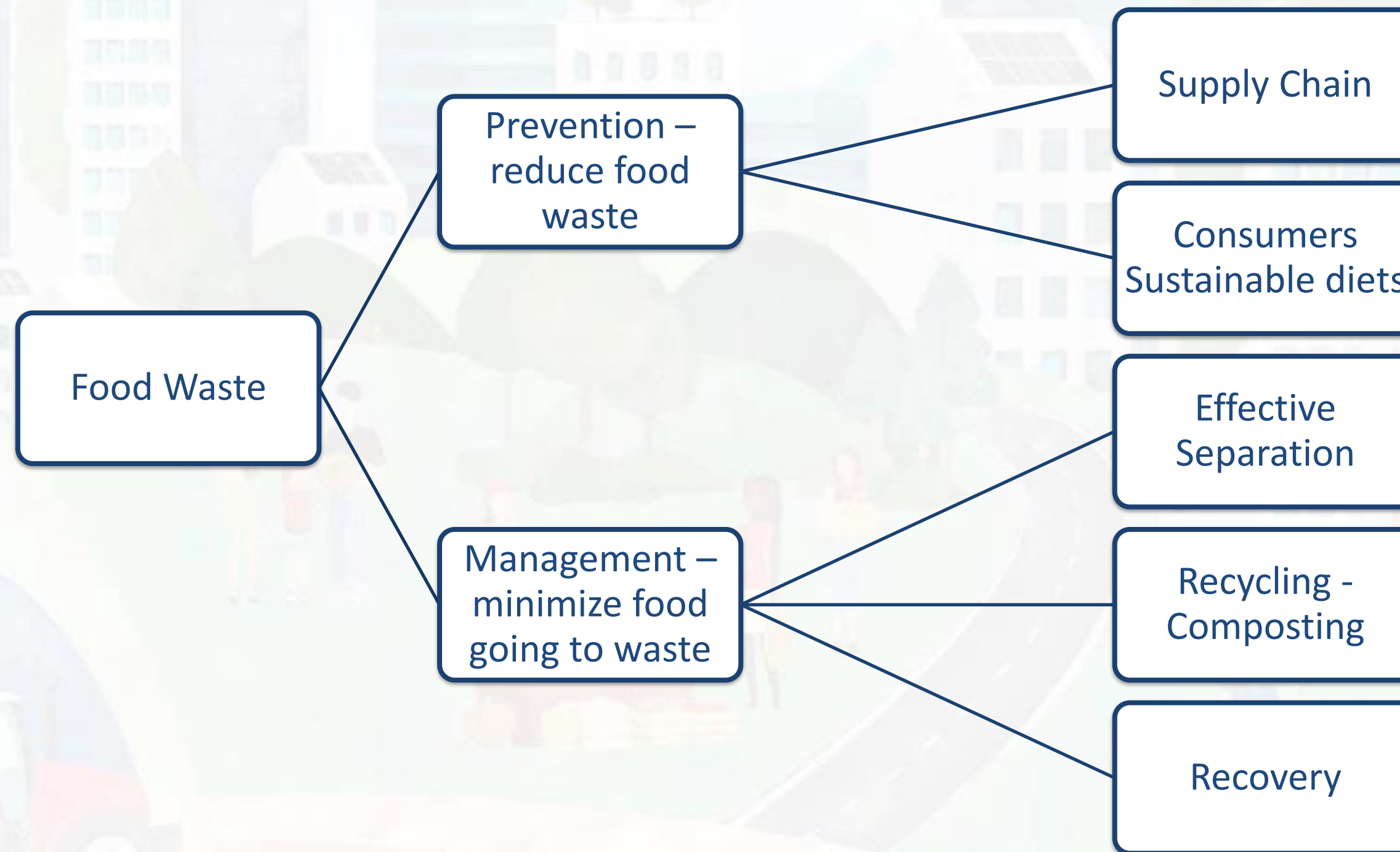
Food waste data

Organic Waste Categories, tn / year



Source: City of Athens, Directorate of Cleaning and Recycling, Waste Management Local Action Plan, 2021, p.p.59-60

City of Athens challenges and types of actions



Prevention - Redistribution of surplus

Athens Reception and Solidarity Center



Source: <https://kyada-athens.gr/ypostiriktes/>

Cooperation with food enterprises that contribute food surplus; e.g.

- Bread – at least 3 tons per month
- 10.000 lt of milk per year
- Cured meat
- Fresh vegetables and/or packed salads from open air markets - enterprises
- Cereals - at least 3 tons per year

Estimate – approximately 50 tons per year of food surplus saved

The contribution of CSOs – NGOs and corporate CSR is fundamental, and operates beyond the municipal structure.

Prevention - Promote sustainable diets

FUSILLI Collective Kitchen “Sustainable Diets” In cooperation with Municipal Clinics, Department of Preventive Medicine

An experiential tool for consumer action

Advance healthy nutrition using food that is

- ✓ Beneficial for the environment
- ✓ Nutritious
- ✓ Affordable and
- ✓ Produces the least possible food waste



Food waste - challenges

- MOST IMPORTANT – food is perceived as potential waste
- Waste separation is not mandatory
- Organic waste bins (brown bins) are not available in every neighborhood
- Users of organic waste bins > not available to all types of consumers
- Issues with the correct use of organic waste bins

Actions – expand the placement of brown bins

Department of Alternative Waste Management, Dir. Of Cleaning and Recycling

Introduce household and large brown bins into neighborhoods – Agios Andreas Ano Patissia – 02.2024



Actions – expand the placement of brown bins

Department of Alternative Waste Management, Dir. of Cleaning and Recycling

Expand brown bins into institutions and mass consumption spaces

- 55 hotels in 2023
- Most kindergartens and nurseries in cooperation with Municipal Kindergartens Organisation and FUSILLI



Actions – composting bins in schools

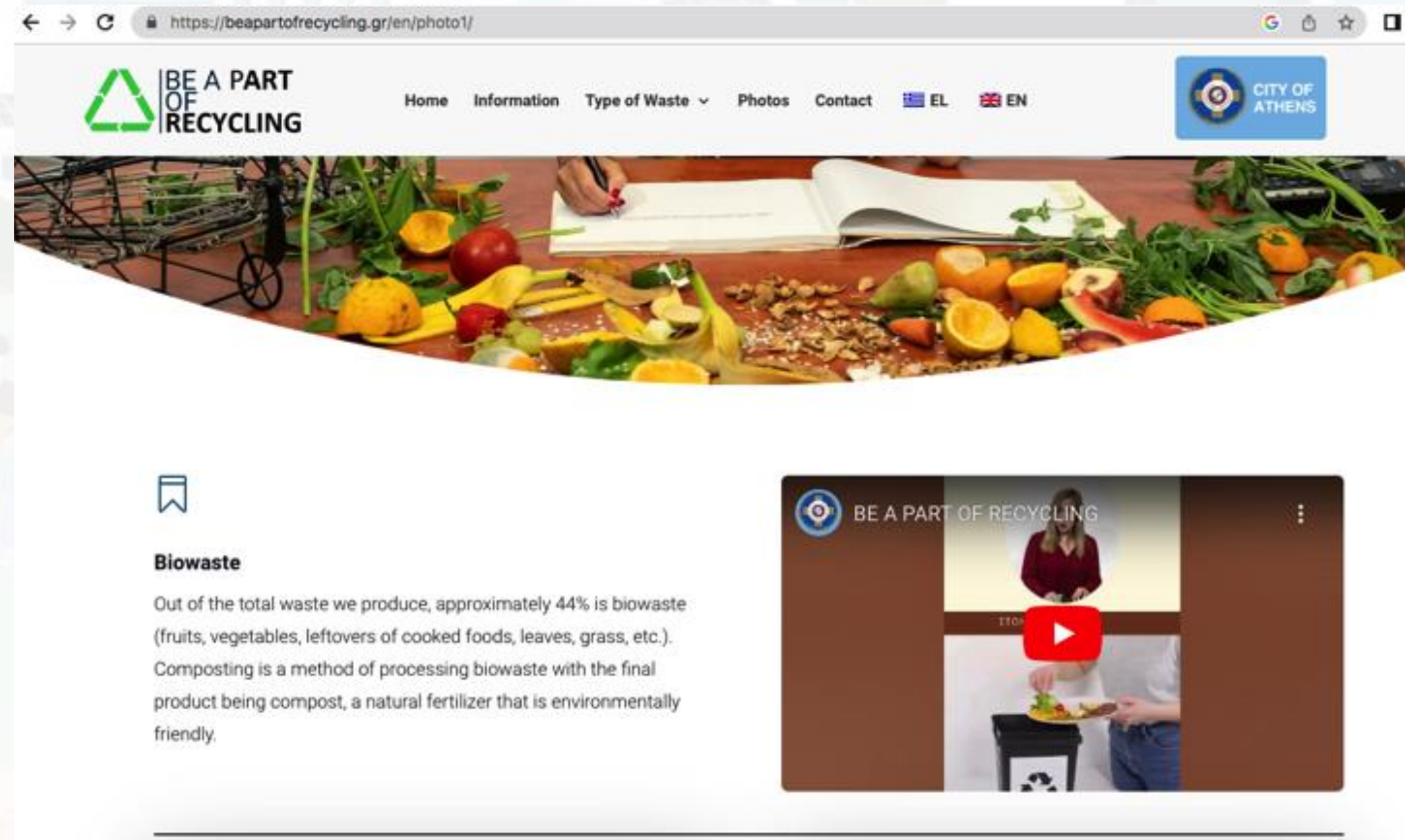


Actions – Website - Inform, raise awareness and educate

Department of Alternative Waste Management, Dir. of Cleaning and Recycling

- ✓ Section on food waste and cooking oils

<https://beapartofrecycling.gr/>



Actions – Inform, raise awareness and educate

Department of Alternative Waste Management, Dir. of Cleaning and Recycling



Information campaigns

- Open air markets
- Schools



Data - Composting

**Food Waste for Composting
Quantity - tons / year**



4% for composting
by 2023

Source: Dpt of Alternative
Waste Management,
Directorate of Cleaning
and Recycling, City Of
Athens

Challenges and closing questions

1. A culture of producing food waste
2. Disproportionate focus on food waste management rather food waste reduction
3. Potential for horizontal cooperation among municipal departments among municipal sectors
4. Correct and effective use of organic waste bins
5. Data availability

Good practices of integrated policy?

Thank you!

**Giorgos Keranis – FUSILLI Project @ DAEM Athens,
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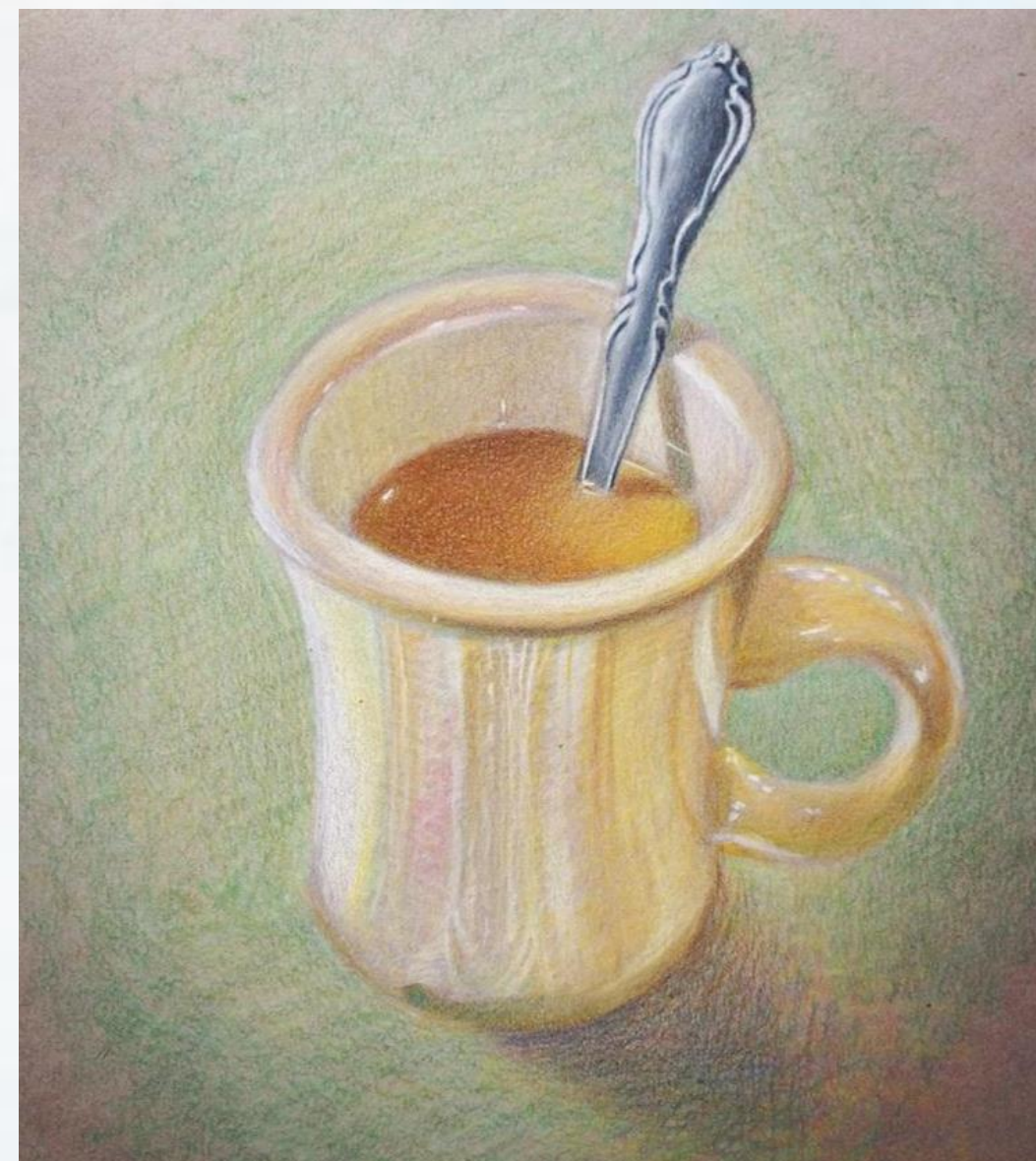


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**1 meditative minute:
*eye-openers + questions
on Jamboard***





March 30
2023

June 8
2023

November 8
2023

April 11
2024

Summer
2024

Fall
2024

Hungry for
exchange #1

Hungry for
exchange #2

Hungry for
exchange #3

Hungry for
exchange #4

Hungry for
exchange #5

Hungry for
exchange #6

Part of: Feeding Cities

A transdisciplinary
conference on sustainable
urban food systems

Save the date!

FUSILLI Final Conference

Transforming the Urban Food System

**Tuesday, 19th November -
Wednesday, 20th November**

Nilüfer, Turkey



Hopefully until next time!

Thanks to:

Oleksandra Deineko

Paola Baravelle

Corine Questiaux

Interested to present during one of the next webinars?

Would you like to connect to the speakers?

Would you like to stay up to date with future events?

Send us an email: j.luger@vu.nl

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