



# The Warsaw Food Lab

Innovations design to reduce food waste



# Overview of #foodwaste prevention and reduction activities in Warsaw

# Overview of food waste prevention and reduction activities

- General educational campaign „I Think ~ I Don't Waste”

myślę~  
nie  
marnuję

Sprawdź, jak nie marnować:

Jedzenia



Ubrań



Rzeczy i  
sprzętów



Opakowań



Roślin 



Wody 



# Overview of food waste prevention and reduction activities

- Project "Schools don't waste"



- 2nd edition ended in June 2024 : 57 primary schools, 1400 sixth and seventh graders working with nutrition coaches to reduce food waste
- Nearly all participating schools implemented food waste reduction measures, ranging from simple changes to more advanced strategies
- On average, food waste was reduced by about 22%, with some schools achieving reductions as high as 47%

# Overview of food waste prevention and reduction activities

- Project on city market places



- Food surpluses given to charity organizations in 2019 (pilot): over 330 kg ; in 2021: over 2750 kg ; in 2022 and 2023 : 30 tons each year
- Educational activities targeting the sellers – management of food storage and presentation, cooking classes.
- Minimizing the use of plastic bags and encouraging the use of reusable bags and pouches with the distribution of 40 000 of them in Spring 2024



# Overview of food waste prevention and reduction activities

- Foodsharing spaces (jadłodzielnie)

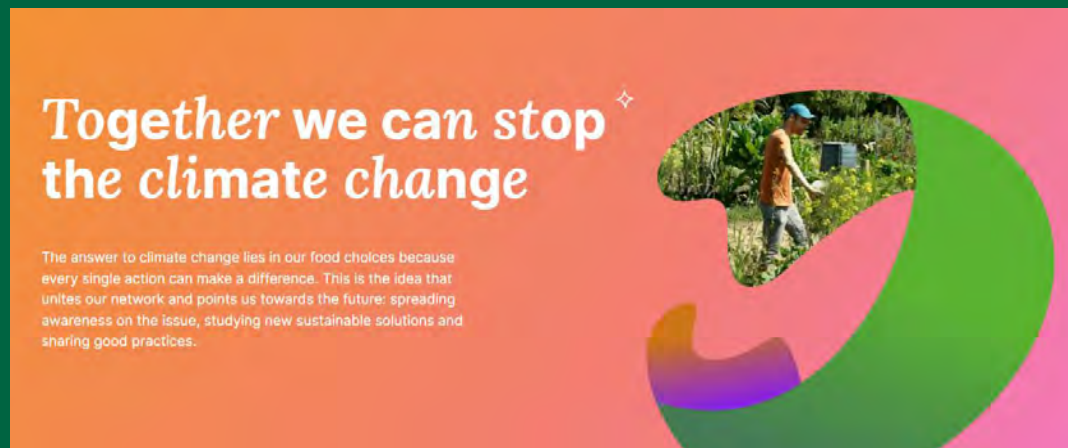


- All residents can leave or take surplus food, preventing waste and supporting community access
- 49 locations in Warsaw
- Through the "I Think ~ I Don't Waste" campaign and the participatory budget, residents are encouraged to use and establish more Jadłodzielnie

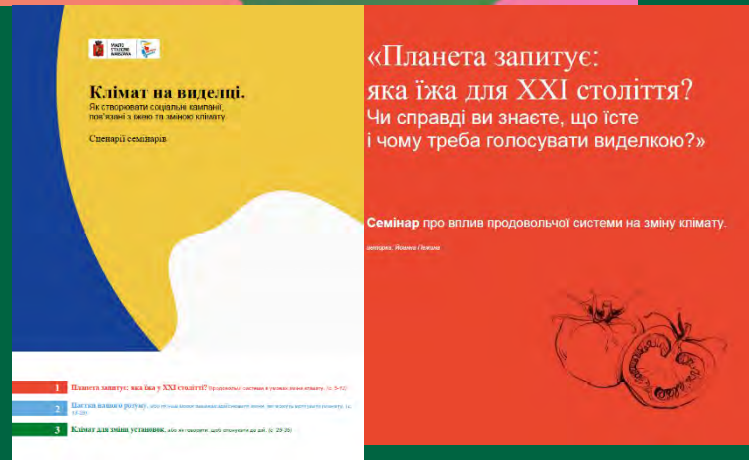


# Overview of food waste prevention and reduction activities

- The Food Wave project

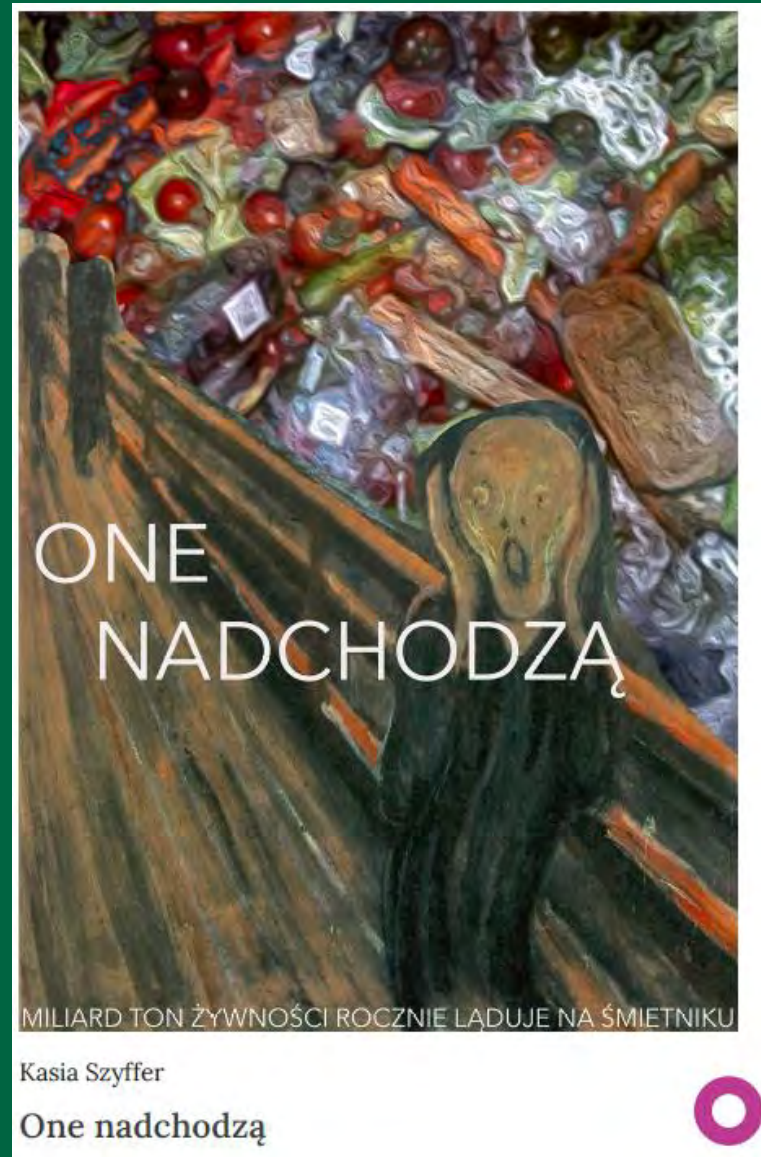


- Educational and activation campaign on the **food-climate nexus** (materials in PL and UKR)
- **Food waste** as one of the food system aspect impacting climate change (GHG emissions)
- Art and photography contest / design and planting of school gardens / integration activities for the Polish and Ukrainian youth



# Overview of food waste prevention and reduction activities

„They are coming”







# The Warsaw Food Lab

# Milan Urban Food Policy Pact

## EUROCITIES Working Group Food



### City of Warsaw

- MUFPP signatory city since 2015
  - Vice Chair of the WG Food since 2019
  - Knowledge sharing hub
  - Lobbying activities
  - Networking and EU programmes calls
- 
- Food-related EU project in Warsaw:

FOOD WAVE

FOOD TRAILS



## Milan Urban Food Policy Pact

More than 50% of the world's population currently lives in urban areas, a proportion that is projected to increase to almost 70% by 2050.

# FOOD TRAILS

Horizon 2020

Cities as agents of food system transformation

19 partners:

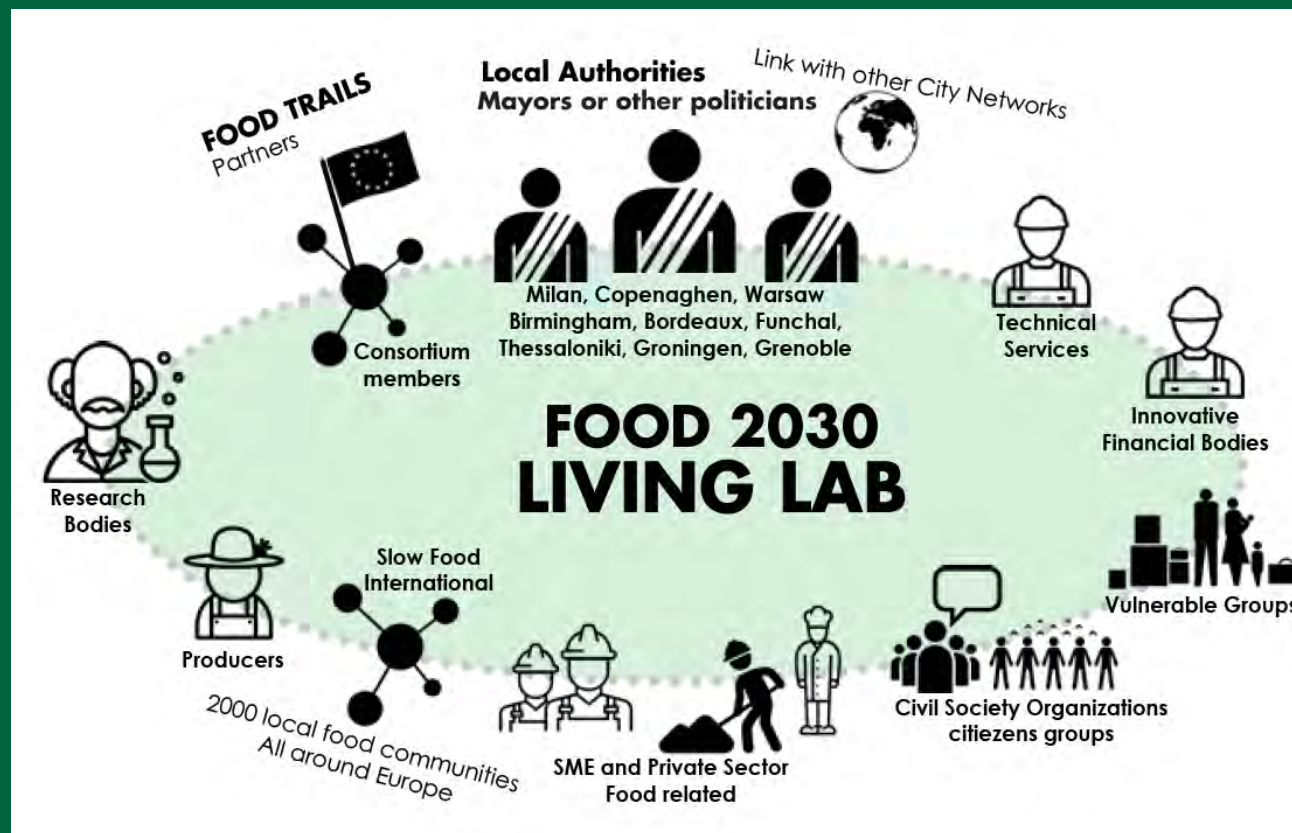
11 cities, 3 organizations, 5 academic institutions

7,7 mln citizens



● Funchal

# FOOD TRAILS Living Labs



11 CITIES – 11 LIVING LABS

LINKING FOOD SYSTEM ACTORS  
TO STRENGTHEN THEIR CAPACITY  
TO CO-DESIGN AND CO-DELIVER  
INNOVATIVE SOLUTIONS

# The Warsaw Food Lab (WFL)



Innovations for the Warsaw  
food system





Warsaw



# An original method



Human-centered design



Systemic thinking



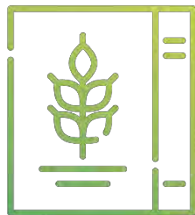
Mechanism of change

# WFL method

An optimal method for the co-creation of innovative public interventions



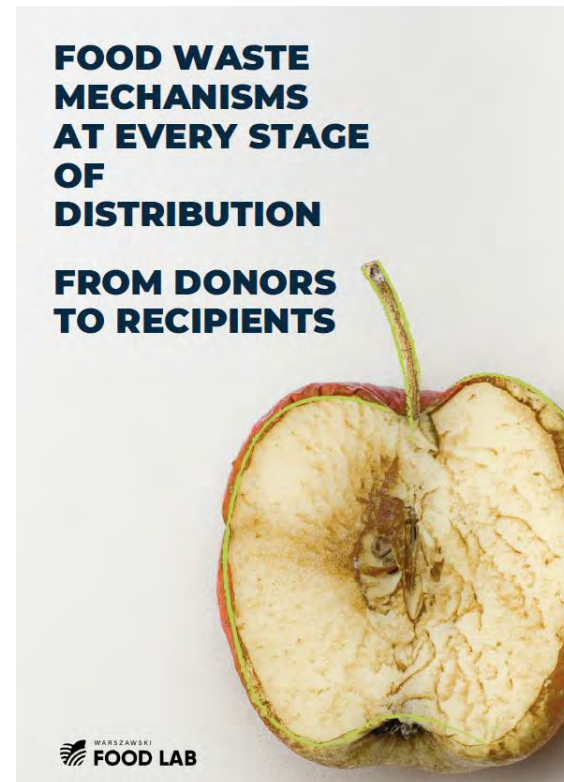
Multidisciplinary team



Evidence- based approach



Behavioral insights



## OPTIMISATION OF FOOD DISTRIBUTION

IN THE CONTEXT  
OF THE REFUGEE CRISIS  
IN WARSAW



# The REACT method

1. Reframing the issue	2. Exploring the situation	3. Analyzing the problem	4. Creating solutions	5. Testing solutions
<p>What actors directly and substantially contribute to problem? What misbehaviors are crucial to focus on?</p>	<p>What do we need to know about our target group behaviors?</p>	<p>Hypothesizing about Obstruction Problems</p> <p>What are the factors obstructing specific positive behavior?</p>	<p>Hypothesizing about Intervention Type</p> <p>What intervention will enable expected positive behavior?</p>	<p>Do the solutions impact the beneficiaries' behaviour? What positive behaviour do we expect from our target group?</p>
<p><i>Desk research &amp; beneficiaries selection</i></p>	<p><i>Empirical field research</i> Qualitative and quantitative</p>	<p><i>Living Lab Workshops</i></p>	<p><i>Living Lab Workshops</i></p>	<p><i>Prototypes testing</i></p>

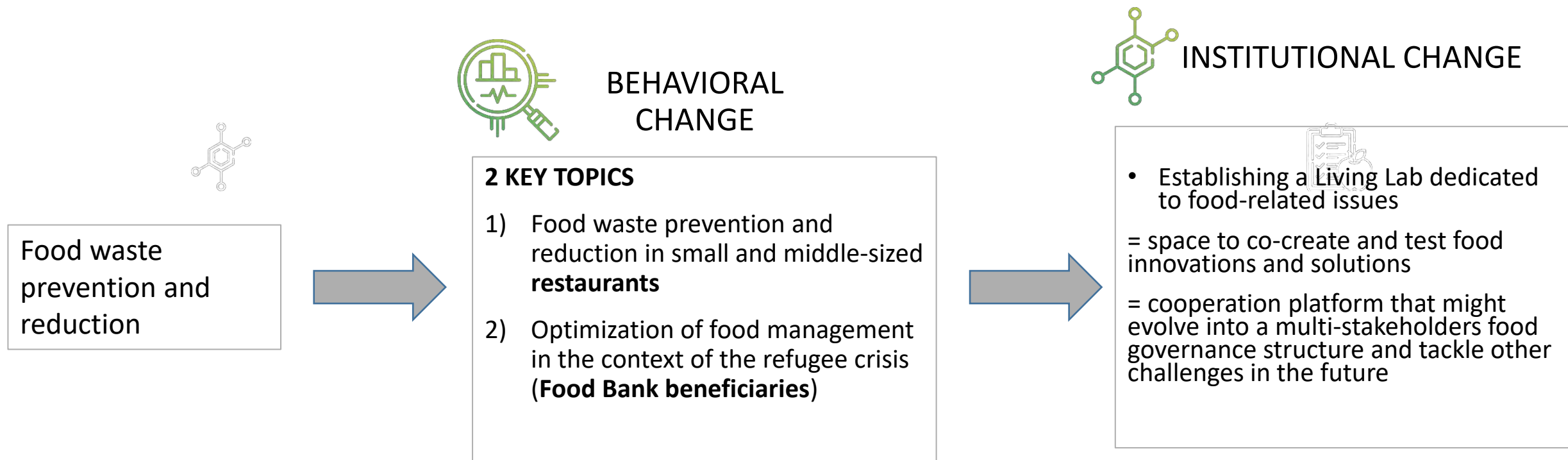
# Selection of the topic and target groups (1. step)

## Desk Research

06161209011804_krakow_mapa_large-1024x578.jpg	Food_Waste_in_the_UK.png	
Ariel Modrzyk - praca dr.pdf	foods-08-00481-v2-1.pdf	
Badanie na studentach z Olsztyna.pdf	Great taste_Zero Waste_EIT FOOD_Restaurant of the Future_11.JPG	
Badanie na studentach z Poznania.pdf	Groningen GG LL October 2021 presentation.pdf	
Badanie z profilami konsumentów - Niemcy, Holandia i Skandynawia.pdf	Inspiration.docx	
consumer-understanding.pdf	Key notes from the Zero Waste-Great taste online event.docx	
Dane i działania Urzędu i MPO_Food waste.docx	Linki do stron i instytucji - food waste.docx	
DEFINIOWANIE STRAT I MARNOTRAWSTWA ŻYWOŚCI.pdf	Managing-the-risk-.pdf	
Diagnoza systemu żywnościowego Warszawy.pdf	MARNOTRAWSTWO ŻYWOŚCI – PROBLEM POMIARU IDOSTĘPNOŚCI DANYCH.pdf	
DSZ_marnotrawstwo.docx	Marnotrawstwo żywności w Polsce.pdf	Przewodnik-do-Raportu_FPZ_-Nie-marnuj-jedzenia-2018.pdf
Eurocities draft statement_food system transformation_for ExCom.pdf	Metody pomiaru marnotrawstwa żywności.pdf	Raport_NieMarnujJedzenia_2020.pdf
Food Trails – 2021 autumn activities.pdf	MIBE_T20_z1_03-2.pdf	Raport- poradnik dla przedsiębiorców.pdf
Food_Lab Opis problemu.xlsx	NIK-P-21-085-marnowanie-zywnosci.pdf	STRATEGIA_PROM_v_2.0_20.07.2021.pdf
Food_that_doesnt_cost_the_earth_Full_guide-1.pdf	Pandemia_Badania_McCormick_FPZ_2020.pdf	sustainability-12-00304-v2-1.pdf
		uwagi_do_ustawy.pdf
		Wplyw_marnowania_zywnosci_na_zmiane_klimatu.pdf
		Zgubione-kalorie--Jak-skutecznie-walczyz-z-marnotrawieniem-zywnosci.pdf
		Ziemianie_Reguluja_2020-1.pdf



# Selection of the topic and target groups (1. step)





# Key topic #1

# Small restaurants

# Exploring the situation (2. step)

## Empirical Field Research

### 3 steps:

- A) **Interviews** with experts on food waste and from the HoReCa sector
- B) **Double interviews** of restaurants owner and Staff
- C) **Co-creation workshop** with restaurants managers and owners



Desk research



Wywiady eksperckie



Diady



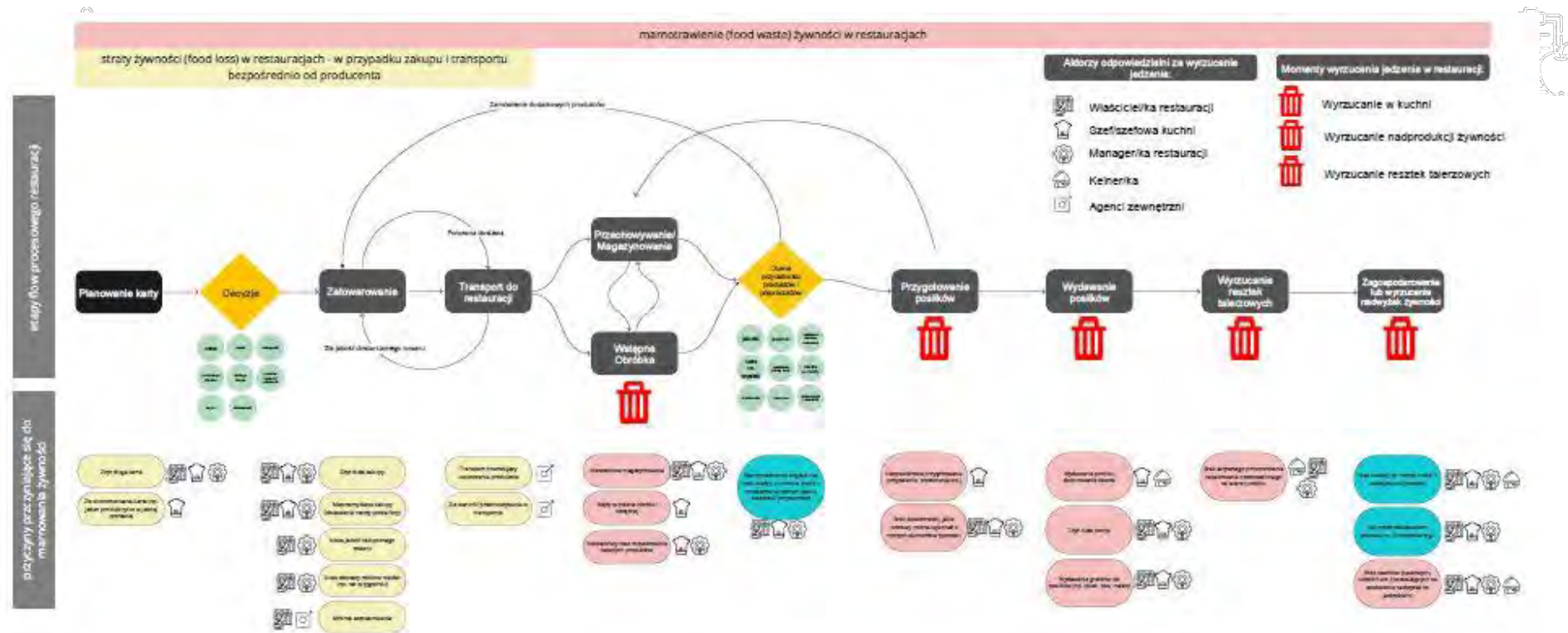
Warsztat ko-kreacyjny



# Exploring the situation (2. step)

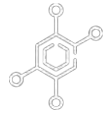
## Empirical Field Research

### Mapping the food journey



# Exploring the situation (2. step)

Empirical Field Research



## Report + Legal Framework Analysis



MIASTO  
STOŁĘCZNE  
WARSZAWA



Uniwersytet  
SWPS

2nd September 2022

## Food waste in small restaurants in Warsaw. Research report.





# Analyzing the problem (3. step)

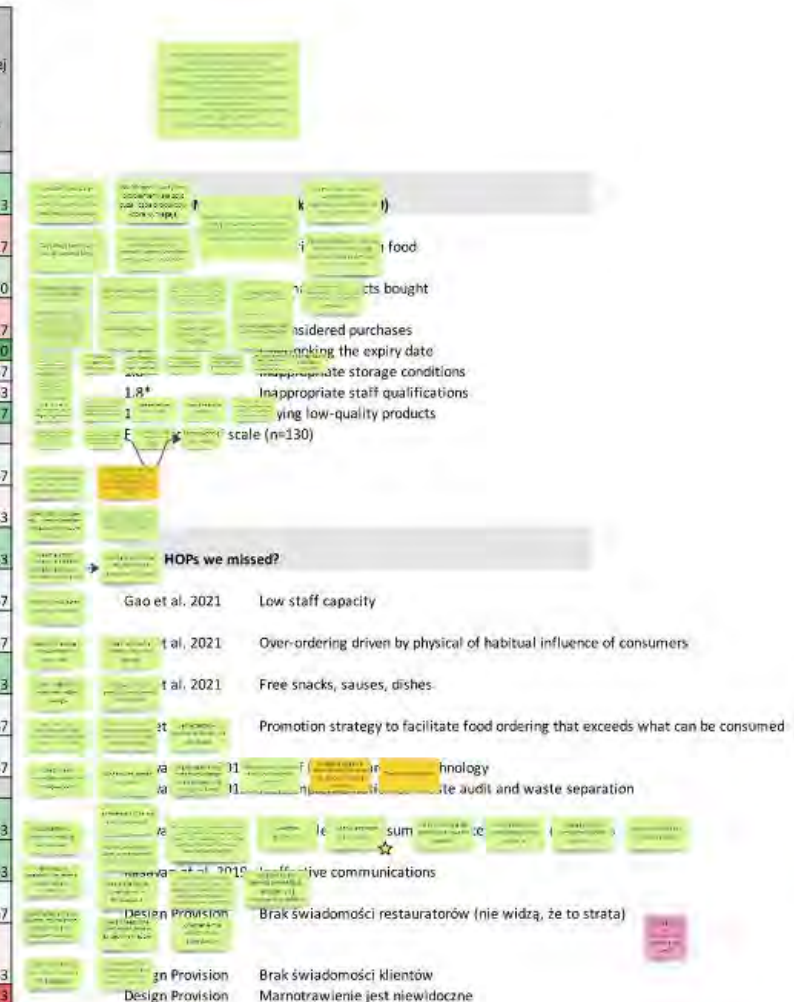
## Additional surveys



# Analyzing the problem (3. step)

## Selection of 2 problems

Sytuacje decyzyjne (Action situations)	Agent Typ deficytu (Potencjał, Motywacje, Sposobność)	#	Nasze mini-makiety z restauracjami Dla Q1 n=6 Dla Q2 n=5	Q1: Co najbardziej wpływa na marnowanie? 1=niski wpływ 2=średni 3=wys. wpływ	Q2: Co najłatwiej usprawnić? 1=proste 2=umiarkowane 3=trudne
		<b>A</b>	<b>Planowanie karty i zatowarowanie</b>		
1 A.II: Planowanie menu	RESTAURACJA - Potencjał (wiedza/umiejętności)	A.1	Zbyt długa karta	1,86	1,33
2 A.II: Planowanie menu	RESTAURACJA - Potencjał (wiedza/umiejętności)	A.2	Że skonstruowana karta (np. 1produkt tylko w 1potrawie)	2,14	2,17
3 A.III: Zamawianie produktów	RESTAURACJA - Potencjał (wiedza/umiejętności)	A.3	Nieprzemysłane zakupy (dodawanie spoza listy)	2,00	1,50
4 A.I. Szacowanie popytu	RESTAURACJA - Potencjał (wiedza/umiejętności)	A.4	Brak wiedzy o prognozy sprzedaży (kupujemy na zapas)	2,00	2,17
5 A.III: Zamawianie produktów	RESTAURACJA - Otoczenie	A.5	Niska jakość zakupionych towarów	1,14	1,00
6 A.IV: Odbiór towaru	RESTAURACJA - Otoczenie	A.6	Duże dostawy robione rzadko (raz w tygodniu)	2,14	1,67
7 A.III: Zamawianie produktów	???	A.7	Minimum zatowarowania	2,00	1,83
8 A.IV: Odbiór towaru	RESTAURACJA - Otoczenie	A.8	Towar uszkadza się podczas transportu	2,00	1,17
		<b>B</b>	<b>Przechowywanie i przygotowanie posiłków</b>		
9 B.I. Przechowywanie produktów	RESTAURACJA - Potencjał RESTAURACJA - Sposobność	B.1	Niewłaściwe magazynowanie	2,14	1,67
10 B.I. Przechowywanie produktów	RESTAURACJA - Potencjał (wiedza/umiejętności)	B.2	Brak dokładnej wiedzy, jaki towar jest w magazynie	2,00	1,83
11 B.II. Obróbka wstępna	RESTAURACJA - Potencjał (wiedza/umiejętności)	A.3	Błędy w trakcie obróbki wstępnej	1,71	1,33
12 B.III. Przygotowanie potraw	RESTAURACJA - Potencjał (wiedza/umiejętności)	B.4	Brak wiedzy, co można zrobić z produktów w różnym stanie przydatności	1,57	1,67
13 B.III. Przygotowanie potraw	RESTAURACJA - Potencjał (wiedza/umiejętności)	B.5	Nieprawidłowe przygotowanie (przypalenie, przesolenie)	2,00	1,67
14 B.III. Przygotowanie potraw	RESTAURACJA - Potencjał (wiedza/umiejętności)	B.6	Brak świadomości, jakie potrawy można wykonać z różnych elementów żywności	1,57	1,33
15 C.I. Serwowanie	KLIENT - Motywacje (nawyki i emocje)	B.7	Dekorowanie posiłków	1,71	1,67
16 C.I. Serwowanie	KLIENT - Motywacje (nawyki i emocje)	B.8	Duże porcje	1,86	1,67
		<b>C</b>	<b>Wydawanie posiłków i zagospodarowanie resztek</b>		
17 C.II. Konsumpcja	???	C.1	Brak aktywnego proponowania zapakowania pozostawionego na talerzu posiłku	1,86	1,33
18 C.III. Sprzątanie i zagosp. resztek	RESTAURACJA - Potencjał (wiedza/umiejętności)	C.2	Brak wiedzy, pomysłów i kontaktów komu oddać żywność, która nie została i nie zostanie wykorzystana w lokalu	1,57	1,33
19 C.III. Sprzątanie i zagosp. resztek	RESTAURACJA - Potencjał (ludzie) i Sposobność (czas)	C.3	Brak zasobów (czasowych, ludzkich) pozwalających na zawiezienia nadwyżek do jadłodzielni	1,29	1,67
20 C.III. Sprzątanie i zagosp. resztek	RESTAURACJA - Motywacje RESTAURACJA - Sposobność (niesprzyjające otoczenie)	C.4	Obawa, że oddawanie niewykorzystanej żywności jest niezgodne z prawem	1,86	1,83
			MAX	3	3



# Creating solutions(4. step)

Selection of the potential solutions

## A) Food storage

Potential solution: low tech, passive fridge

## B) Lack of knowledge of the legal context enabling the donation of food surpluses

**Series of workshops** with restaurateurs and experts to check the relevance of the hypotheses





# Creating solutions(4. step)

## Selected problem

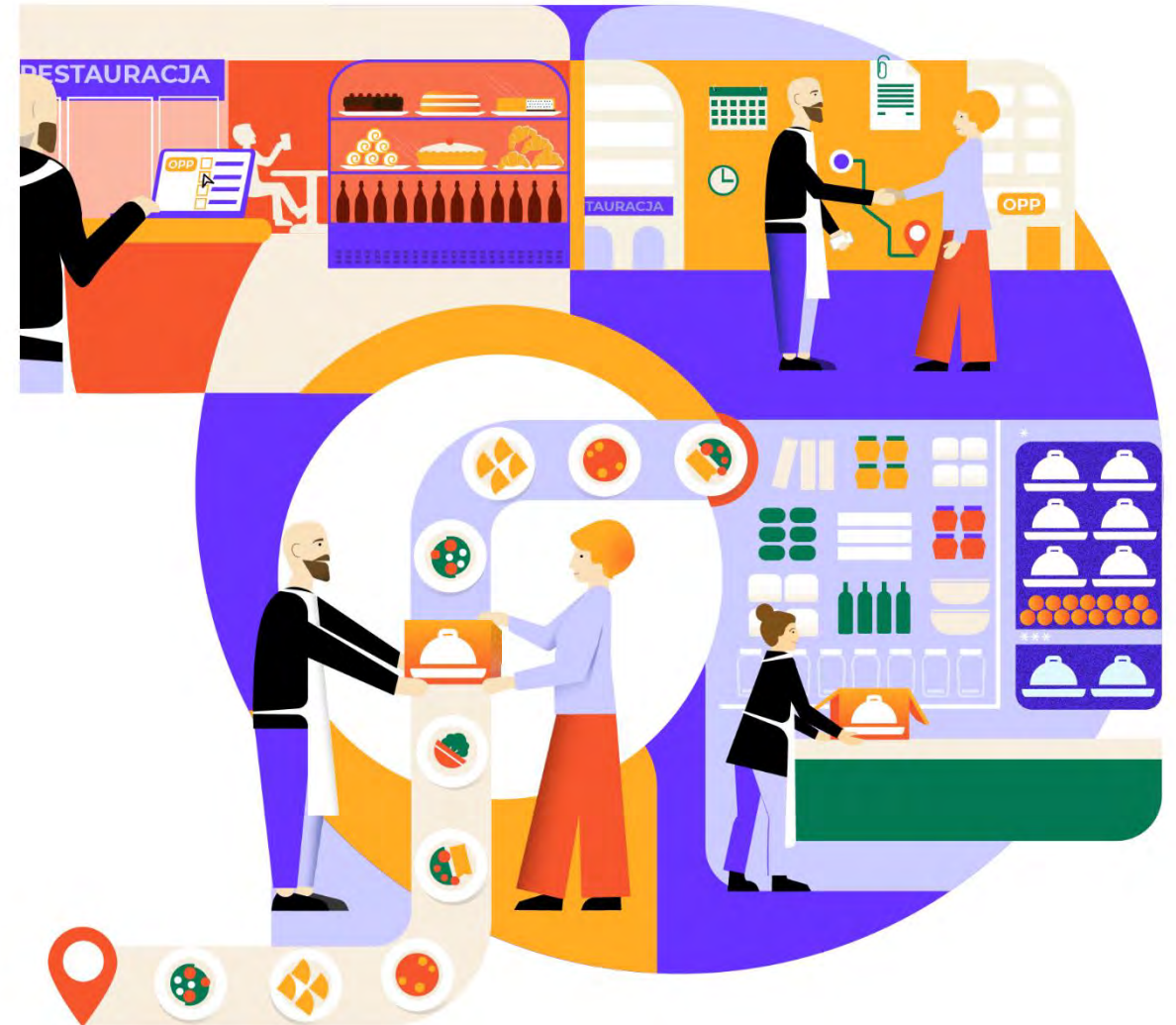
### PROBLEM:

Existing regulations for food distribution are unclear and fragmented -> fear of legal repercussions among restaurant owners

### SOLUTION:

**Two-fold intervention** that targets the knowledge gaps and misperceptions about food donation regulations:

- 1) comprehensive and user-friendly knowledge compendium
- 2) interactive infographic as a visual aid/campaign



# Creating solutions(4. step)

Campaign NO WASTE. FOOD CO-OP




- Knowledge Compendium
- Campaign to connect restaurant owners and NGOs
- Support by the business sector: Glovo and Makro

nowaste.waw.pl



# Testing solutions (5. step)

Campaign NO WASTE. FOOD CO-OP

- Warsaw Food Lab social media: Instagram, Facebook, Linked In
- Website 
- Posters & stickers
- Knowledge compedium



Projekt:  W ramach projektu działa:  Finansowanie:  Partnerzy:  

Dowiedz się więcej o akcji!  
Zeskanuj kod QR  
lub wejdź na:  
[nowaste.waw.pl](http://nowaste.waw.pl)



# Parallel initiative

Series of roundtables with retailers, food lawyers and the food bank

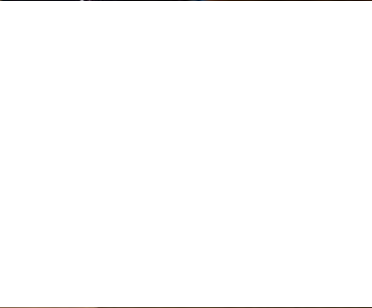
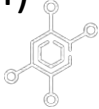
Discussions on the different perspectives and needs of the stakeholders



# Parallel initiative

Series of roundtables with retailers

Roundtable #2  
(March 2024)





**Thank you  
for your attention**

City of Warsaw

Natalia Boitot

+48 22 443 32 11 [nboitot@um.warszawa.pl](mailto:nboitot@um.warszawa.pl)





# **Key topic #2**

## **Beneficiary organizations of the Food Bank**



# Reframing the issue (1. step)

Context of 2022

## War outbreak in Ukraine

- ⇒ Observing the situation and involvement into initiatives providing food for people fleeing the war
- ⇒ Modification of one of the key topics in the Warsaw Food Lab



# Exploring the issue (2. step)

Empirical field research (A)



Interviews with representatives of **10 initiatives** involved in providing food to the refugees from Ukraine from March until July 2022

=> UNIQUE RESEARCH OF THIS KIND IN EUROPE



## Exploring the issue (2. step)

Empirical field research (A)



# OPTIMISATION OF FOOD DISTRIBUTION

IN THE CONTEXT  
OF THE REFUGEE CRISIS  
IN WARSAW

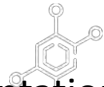
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# Reframing the issue (1. step)

Change of key topic



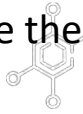
- Acceptation of the modifications by the FOOD TRAILS project leader
- The refugee crisis unveiled an already **pre existing** issue in the area of **food aid** distribution
- Close cooperation with the Warsaw Food Bank



# Exploring the issue (2. step)

Empirical field research (B)

- **Workshops with the Warsaw Food Bank** to define the research scope



**Banki Żywności**



## REPORT

- ❖ In-depth analysis of the food distribution and processing schemes
- ❖ Analysis of situations where food waste occurs
- ❖ Ranking of the drivers influencing food waste
- ❖ Behaviours and motivations of the main stakeholders



Warsaw

# FOOD WASTE MECHANISMS AT EVERY STAGE OF DISTRIBUTION

## FROM DONORS TO RECIPIENTS



WARSZAWSKI  
**FOOD LAB**



# Analyzing the issue (3. step)

## Selection of the problem

- **Workshops with the Warsaw Food Bank and researchers**



# Creating solutions (4. step)

## Selection of the problem

- **Workshops with the Warsaw Food Bank and experts in various food-related areas**





# Creating solutions (4. step)

## Selection of the problem

### PROBLEM

Under-utilization of donated food, particularly bread, fruits, and vegetables, by recipient organizations of the Warsaw Food Bank.

2 barriers: storage space & high turnover of staff and a lack of know-how among volunteers

### SOLUTION

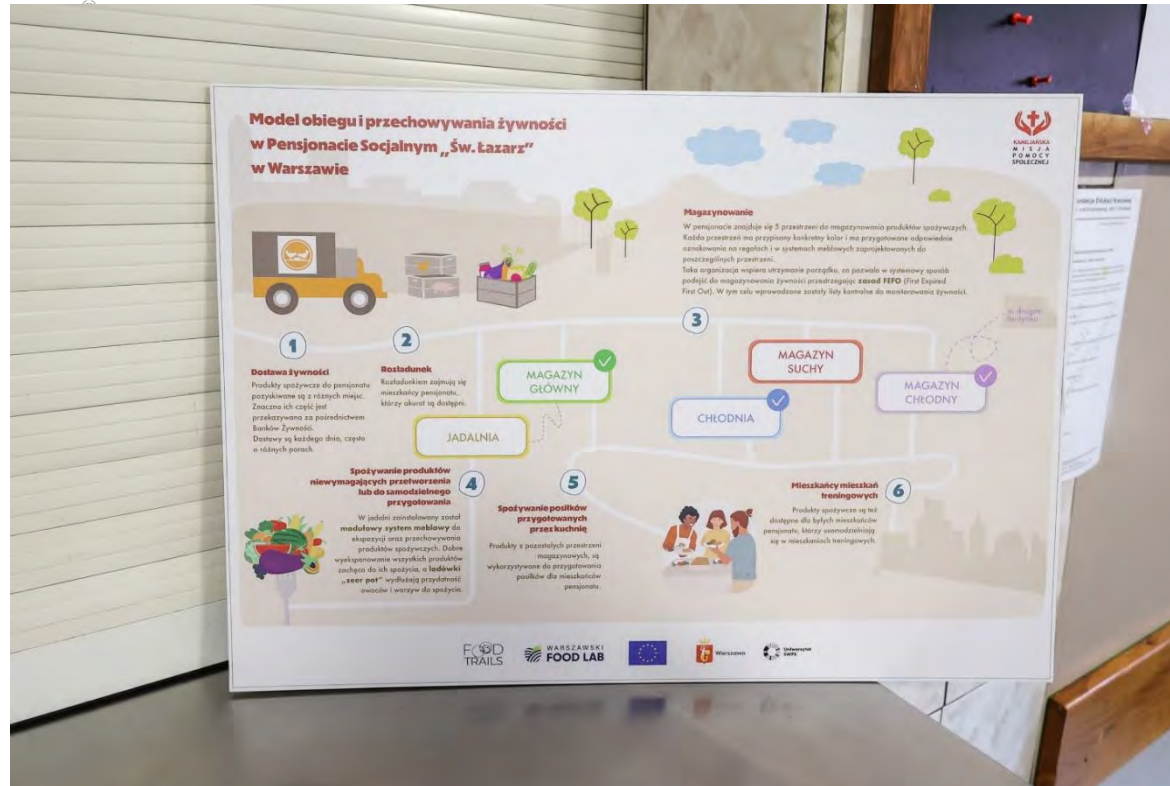
#### Two-fold intervention :

- 1) equip these organizations with efficient tools and practical knowledge: smart, low-energy **storage system** & clear set of instructions
- 2) **nudge** them towards better use of donated food -> establish new, efficient routines



# Testing solutions (5. step)

Implementation of the pilot







**Thank you  
for your attention**

City of Warsaw

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+48 22 443 32 11 [nboitot@um.warszawa.pl](mailto:nboitot@um.warszawa.pl)