

# Food waste and social innovation initiatives in the era of recession: the case study of Greece

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# Presentation structure

- **Scale of the problem**
- **Causes of food waste generation**
- **Food waste & Social innovation in Greece**
- **Conclusions**





Since significant resources are required for food production, manufacturing, transportation, storage, retailing and preparation, **food waste** is a waste of valuable resources with obvious **economic, social and environmental implications**.

Moreover, food waste brings up **a moral issue**: reduction of the amount of food wasted may play an important role in combating global hunger.





# GDP of Greece - 2004-2013



SOURCE: [WWW.TRADINGECONOMICS.COM](http://WWW.TRADINGECONOMICS.COM) | THE WORLD BANK GROUP



About 1/3 ( $\approx 1.3$  billion tonnes per year) of the food for human consumption is wasted globally (FAO)

In Europe about **90 million tonnes** of food waste are generated annually  
(agricultural food waste + fish discards are excluded)



Source: Love food Hate waste









## Causes of food waste – Consumers

The main reasons are:

- Lack of shopping planning
  - Shopping list
  - Cupboards checking
- Lack of meal planning
- Lack of awareness
- Misunderstanding of date labels
  - Best before
  - Use by





## The WASP Tool project (LIFE 10 ENV/GR/622) WASP stands for **W**aste **P**revention

“Development and  
Demonstration of a Waste  
Prevention Support Tool for  
Local Authorities”

The project is co-funded  
by the European Union LIFE+  
programme





Project location:  
Greece & Cyprus

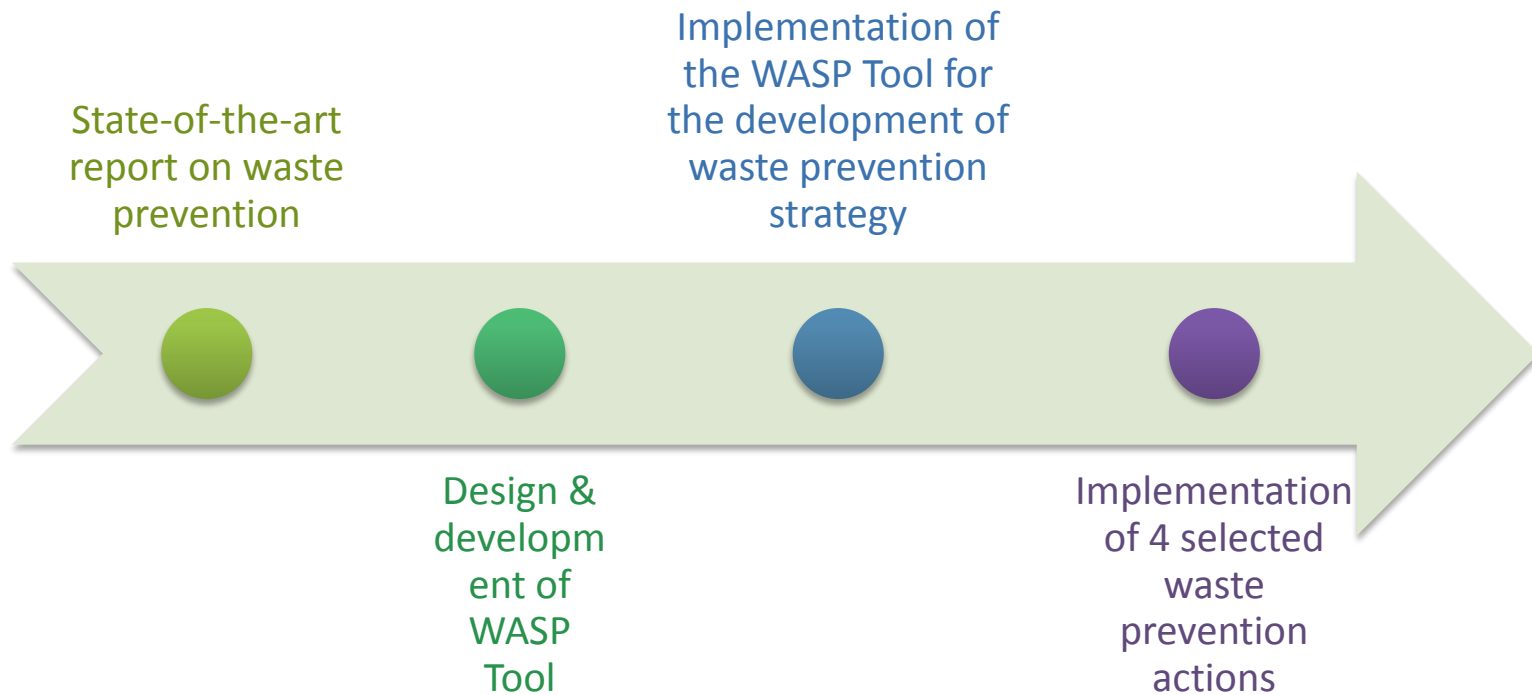
Duration:  
01/10/2011 –  
30/09/2014



Project partners:



# Main actions



Development of the waste prevention network, Communication & dissemination, monitoring & evaluation



The knowledge base incorporated in WASP Tool stores data concerning the environmental impact of the following categories of waste prevention actions:



## #1. Home composting

## #2. Act against food waste generation

## #3. Promoting reusable bags

## #4.

- [Municipality of Chania, GR] “Exchange Library” kiosks
- [Municipality of Heraklio. GR] Collection kiosks for unwanted clothes and shoes
- [Municipality of Paralimni, CY] Promoting reusable water bottles (reduction of plastic bottle waste)



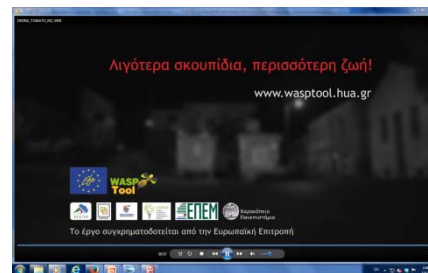


# FOOD WASTE PREVENTION (WASP TOOL PROJECT)

## WASP TOOL PILOT ACTIONS



- Dissemination campaigns (GR & CY)
- “Green cuisine” event in Cyprus
- Research on food waste generation in Greece and Cyprus
- Leaflets on food waste prevention (En & Gr)
- Press releases & articles
- Video for food waste prevention
- Recipe book (cooking with leftovers)
- Open days – Campaigns of information and dissemination – Workshops on date labels, savvy storage, cooking methods
- Demonstration at schools – cooking with leftovers



«Ανάπτυξη και Επιδείξη ενός Εργαλείου Υποστήριξης της Πρόληψης Αποβλήτων για την Τοπική Αυτοδιοίκηση»





## The study within the WASP Tool project

- To account for the attitudes & behaviours of households in Greece towards food waste generation and prevention
- To quantify food waste generated in Greek households

Structured questionnaire  
15-day diaries

- To identify the attitudes of the respondents regarding food waste and food waste reduction.
- To identify certain consumer behaviour practices that can contribute to the reduction of food that is thrown away
- To explore the effect that the sociodemographic variables have on the attitudes and the behaviour of the households on the generation as well as the prevention of food waste





- “Tool”: a structured questionnaire and a food waste diary
- Study area: the greater Athens area, Chania and Heraklio (Spring 2012 - Autumn & Winter 2013)
- Information gathered: type & frequency of behaviours and habits that result in wasted food, reasons for those habits and information about interrelated conditions (level of employment, age of household members) and behaviour (buying, cooking and diet habits).





**“Compare the current amount of uneaten food that is thrown away to the respective amount 12 months ago”**

- Decreased a lot: 45.3%
- Decreased a little: 20.9%
- Remained the same: 32.6%





**“Which was the driving force behind the actions described in the previous question?”**

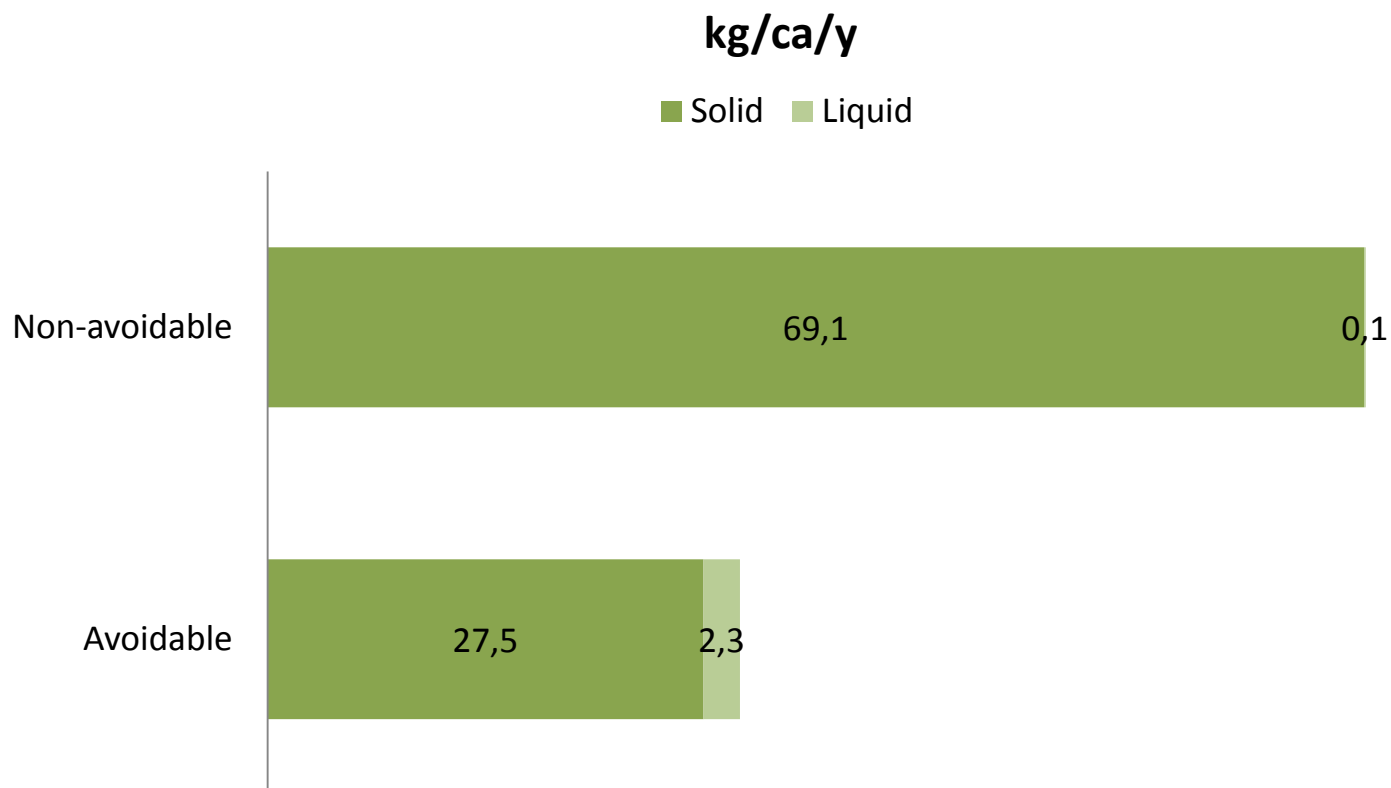
Financial recession ( >60%)

Change in the consumer patterns

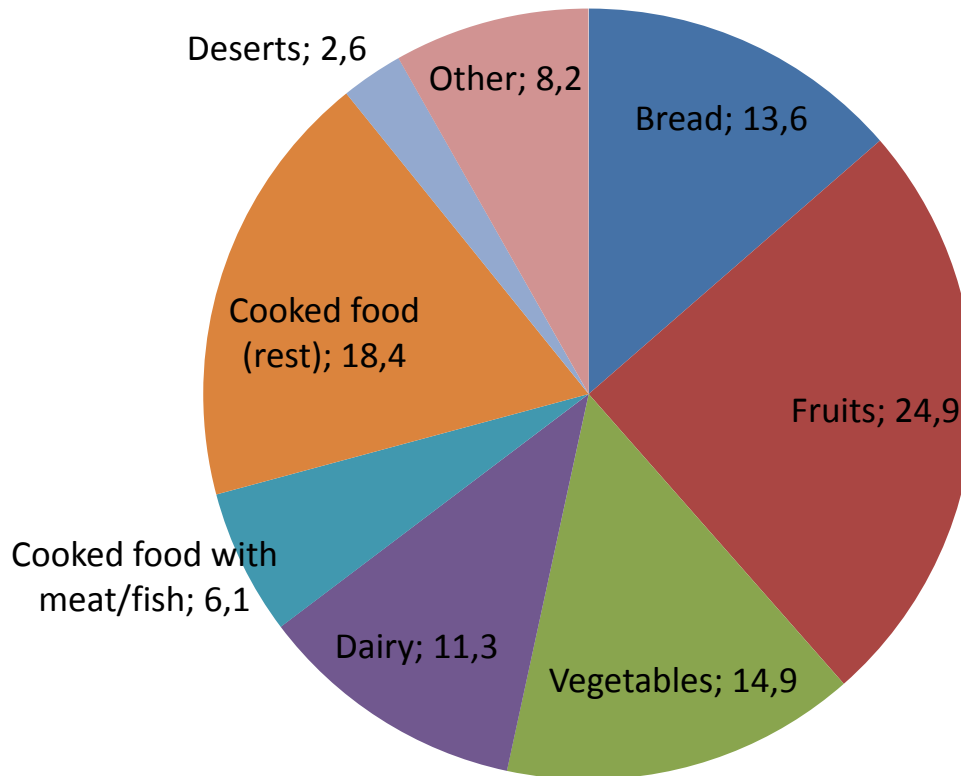
Change towards a more environmentally friendly lifestyle



# Unavoidable vs avoidable food waste in Greek households

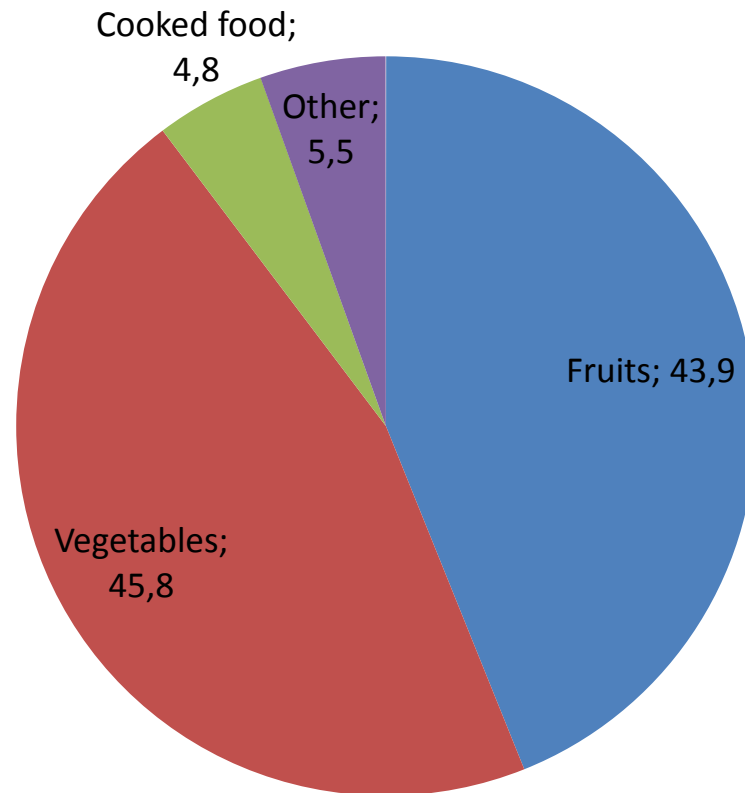


# Composition of avoidable food waste in Greek households (%)





# Composition of unavoidable food waste in Greek households

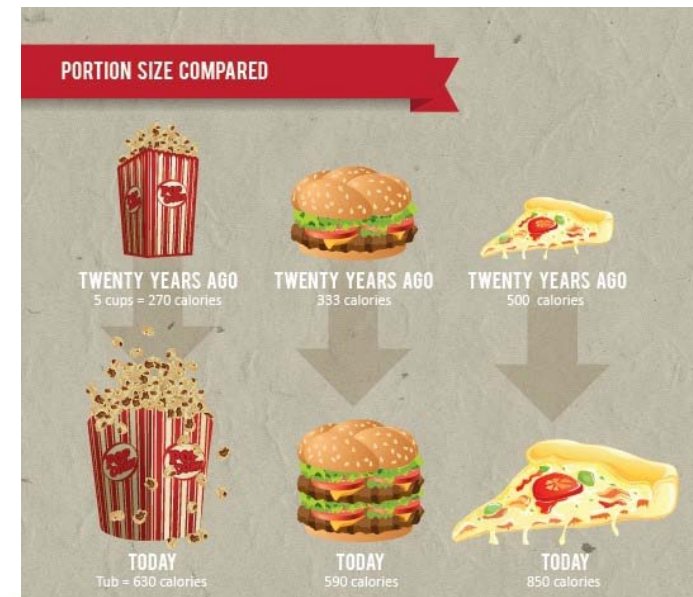




### The main reasons are:

- Storage conditions (protection/packaging, fridge temperature, freezing, location)
- Large portions (pre-packed food, takeaway, traditional serving)
- Discarding of left-overs
- Discount offers

Star Rating	Temperature	Storage Time	
		Frozen Food	Ice Cream
*	-6°C	1 week	1 day
**	-12°C	4 weeks	1 week
***	-18°C	3 months	1 month
****	-18°C	Will freeze a specified quantity of fresh food from +25°C to -18°C in 24hrs without affecting the frozen food already stored	



## Measures for food waste reduction



**Donations:** Retailers and food industries can donate food that otherwise would be discarded due to unprofitable prices, surpluses, and weakness to cover the marketable criteria.

**Development of synergies:** By establishing industrial symbioses and eco-industrial parks, one's firms waste can be served as resources to the others. One farm's food waste can be used as animal food.





## Measures for food waste reduction

**Updating the production chain:** By adopting more efficient energy & material technologies, the production chain gets improved and generates less food waste.

**Appropriate storage conditions:** Ensuring optimal storage conditions, the edible life of a product can be prolonged.



## Measures for food waste reduction



**Awareness campaigns:** The importance of food waste prevention must be spread to all. Consumers should be “trained” on smart shopping, using leftovers.

**Clarification of current food data labels:**  
Research on date labeling showed that 45-49% of consumers in UK misunderstand the meaning of the date labels “best before” and “use by”.





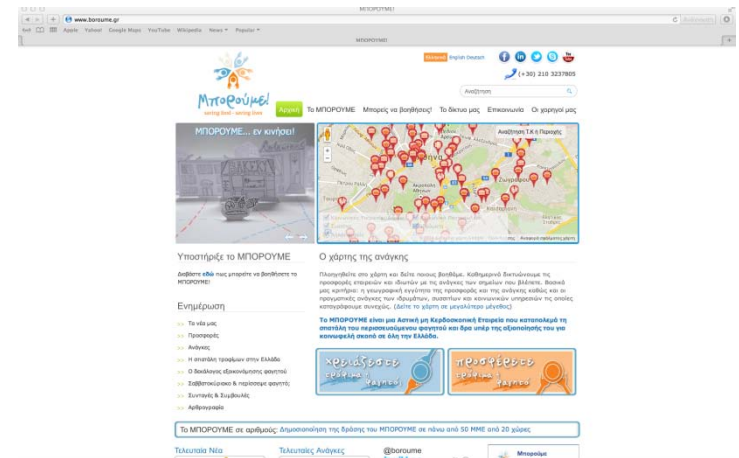
## Food Bank – Foundation for tackling hunger (1995)

- The Greek “Food Bank –Foundation for tackling hunger” was founded in 1995, as an initiative of G. Vassilopoulos.
- It is estimated that approximately 1,418 tonnes of food were donated through the Food Bank in 2012 alone to 32,610 citizens.
- 200 volunteers in 2012.



### Μπορούμε! (WE CAN!, 2012)

- A non-for-profit Organisation that reduce food waste by organising the distribution of surplus food for charity throughout Greece (virtual food bank)
- Since its launch, it offers on average more than 1.500 portions of food per day through its network.



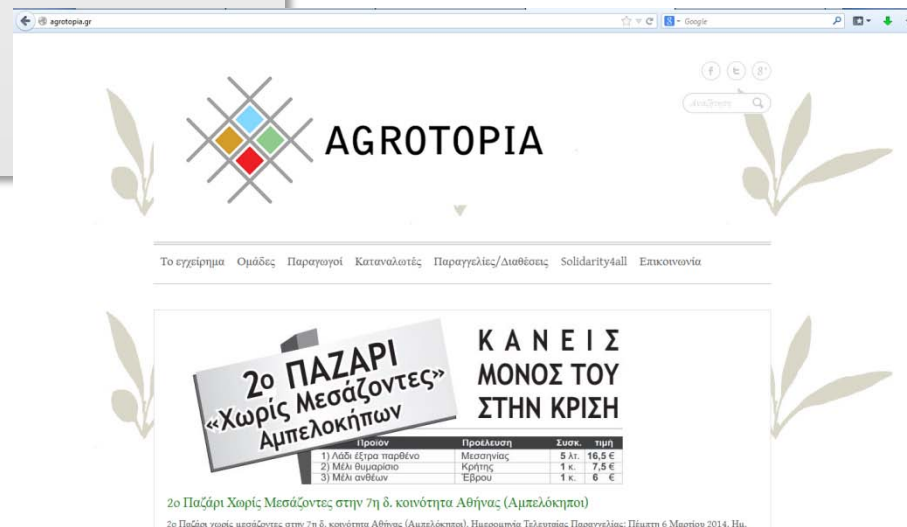
## Καλύτερη ζωή (Better Life, 2013)

- An initiative of WWF Hellas, aiming at the rise of a better (environmentally friendly) day-life.
- The project will be evolved in four directions: 1.nutrition, 2.urban living, 3. consumption, 4. energy.



[www.agrotopia.gr](http://www.agrotopia.gr) (2014)

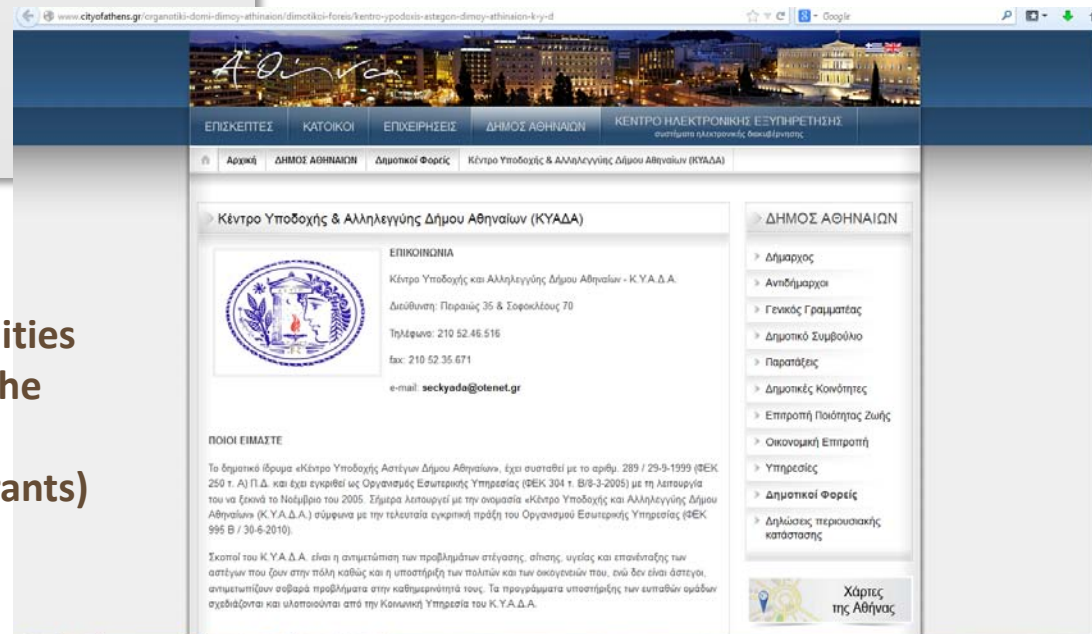
- A web-based platform, linking consumers and producers in order to organize fair trade food (without intermediaries). The platform is linked to “Without intermediaries” movements.



### Reception and Solidarity Center of the Municipality of Athens (1999)

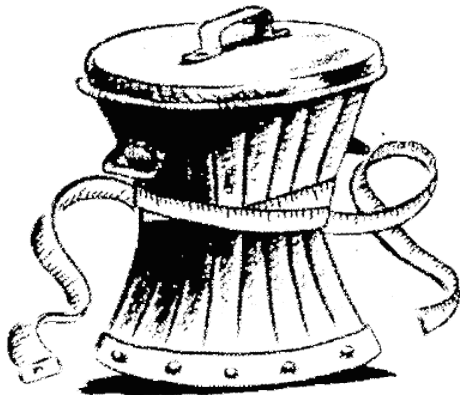
- Daily provision of 1,400 portions of food to homeless people.
- The center aims at addressing housing, feeding and health issues of homeless people. It also supports vulnerable groups of citizens and families.

**-Social super-markets, in various municipalities**  
**-Various volunteer grass-roots actions for the distribution of food that would have been wasted from small shops (bakeries, restaurants)**





# Thank you for your attention!



<http://wasptool.hua.gr>

