



# FUSIONS

## Feasibility Study

Cr-EAT-ive Schools

22/04/2015

Reducing food waste through social innovation

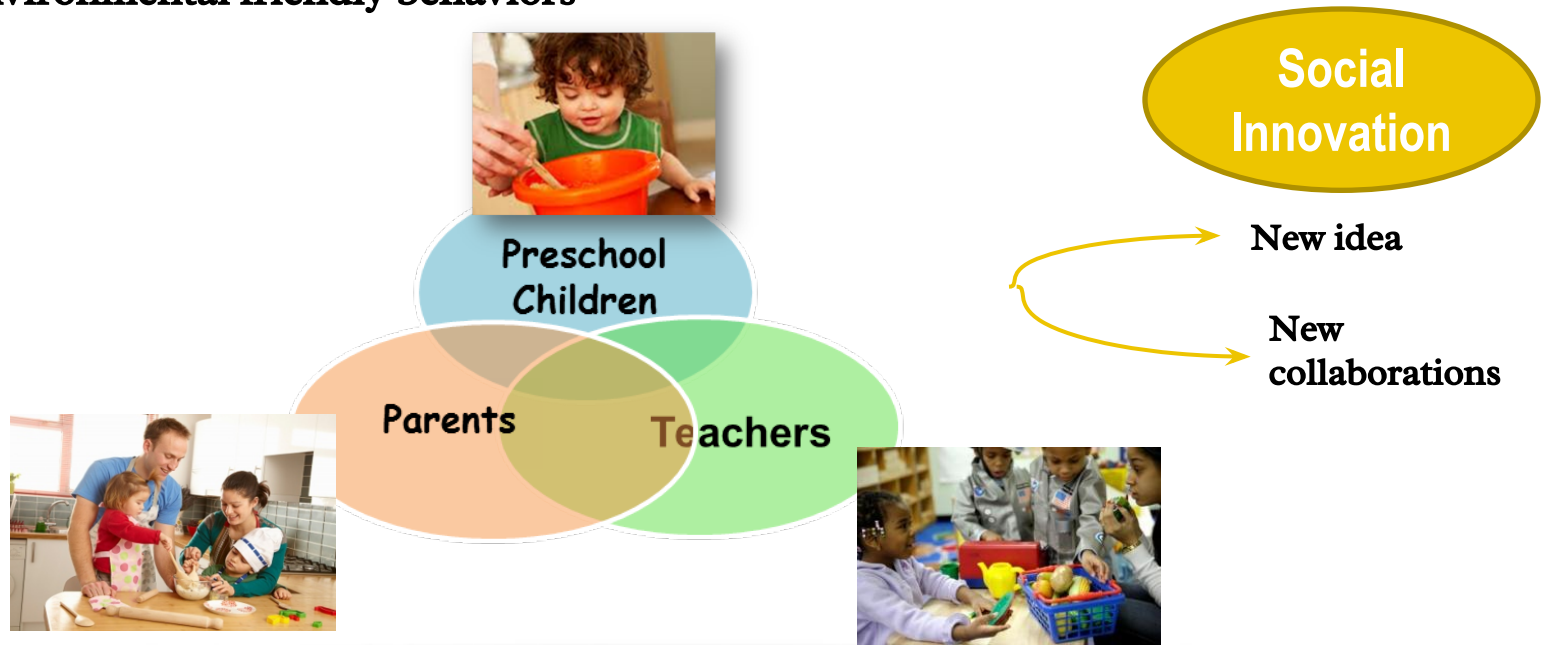


# Initial Idea-Facts

...households with children tend to waste more food than families with no children  
(source WRAP)

...Eating behaviors, often practiced throughout life, are developed in early life

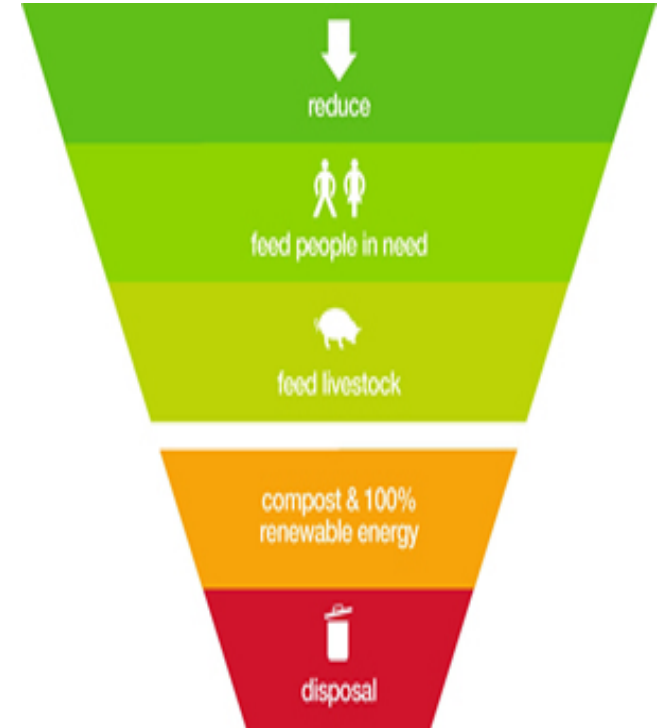
...teachers in collaboration with parents have key role in establishing eating and environmental friendly behaviors



# Objectives



- Raise awareness on food waste
- Enable behavior change towards food waste reduction
  - Kindergarten children and educators
  - Parents
  - Kindergarten canteen cooks



- Reduce food waste in
  - Households with pre-school children (aged 3-5 years old)



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# Cr-EAT-ive Schools Proposal

**4** Local Authorities

**4** Municipal, 2 Private Kindergartens

**480** Children, 480 Families

**7** Kindergarten Heads

**25** Preschool Teachers

**30** Parents Participate in the pilot actions

**Duration: 04/2014-10/2015**

**Budget: 42.075 €**



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# Cr-EAT-ive School Methodology

The methodology.....*consultation with Kindergarten Heads of the proposed project*

*planning*



**1<sup>st</sup>** STEP

1. Identify the most compatible way to integrate the “food waste reduction” theme to the curriculum and the educational procedure
2. Planning the projects actions (seminars, workshops) simultaneously with kindergarten's planned events to ensure the maximum participation of the parents.

*A review on the existing educational material has been preceded*



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# Cr-EAT-ive School Methodology

The methodology .....*Development of a Pedagogical Guide to teachers and training of Preschool Teachers*

Cr-EAT-ive Schools

Πρόληψη και μείωση των αποβλήτων τροφίμων





Παιδαγωγικός οδηγός για παιδιά προσχολικής ηλικίας

**Pedagogical Guide to teachers**

## Contents

- 1.Objectives
- 2.Project Description
- 3.All about food waste
- 4.Methodology
- 5.12 proposed actions/games with instructions
- 6.Methodological approach of Innovative board game



**Innovative game-Board game**

**2<sup>nd</sup> STEP**

## Seminar to Kindergarten Heads and preschool Teachers



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# Cr-EAT-ive School Methodology

The methodology .....*production of educational material*

ANATOLIKI



## Matching game



## Progressive game



## Funny fruits and vegetables.



Innovative game-Board game

3<sup>rd</sup> STEP

50 Guides  
50 Board Games  
500 Matching Games  
500 Progressive games  
500 Funny Fruit Game



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# Cr-EAT-ive School Methodology

The methodology .....*implementation in class*

1<sup>st</sup> Result came up...

***Children started pressuring their parents not to throw away food!!***



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# Cr-EAT-ive School Methodology

The methodology.....*selection of pilot parents\_completion of 1<sup>st</sup> Food Waste Diary*



Welcoming to parents

Presentation of Cr-EAT-ive  
Schools to parents

Selection of pilot parents

**4<sup>th</sup>** STEP

1. Selection of Pilot Parents
2. Distribution of FWD

*30 Pilot Parents in total*



Food Waste Diary



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# Cr-EAT-ive School Methodology

The methodology.....*seminars to parents*



## Presentation of the Guidelines at home



Οδηγός Μείωσης των Αποβλήτων Τροφίμων στο σπίτι



ΑΝΑΔΙΚΗ

ΔΕΚΕΜΒΡΙΟΣ 2014

**Guidelines for home**

## 5<sup>th</sup> STEP

- The Seminars to all parents implemented simultaneously with a kindergarten event in order to ensure maximum participation of parents- in some cases leftover recipes prepared and served by the children to their parents
- The Guidelines contains simple advices on how to reduce food waste at:
  - Shopping and purchasing
  - Storage
  - Fridge
  - Super market

And also leftover recipes, explanations on expiration dates and information about composting



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# Cr-EAT-ive School Methodology

The methodology.....*completion of the pilot*

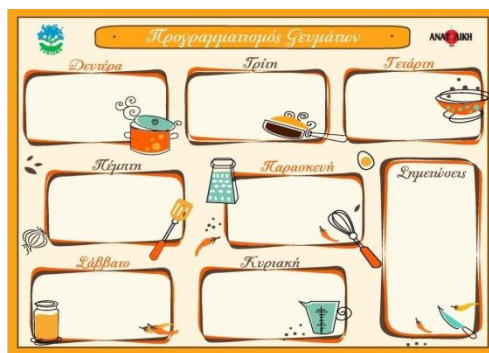
## *action*

- Completion of the 2<sup>nd</sup> FWD (20% less parents filled in the Diaries)
- Distribution of pilot action material to parents
- Interview with all pilot parents (Questionnaire\_WRAP) in order to identify **Behavioral Change**

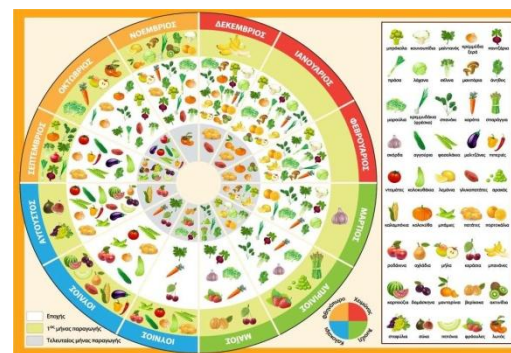
**6<sup>th</sup>** STEP



**Shopping  
list\_magnet**



**Meal Planner\_magnet**



**Cycle of fresh fruits**



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# Cr-EAT-ive School Methodology

The methodology.....*final event*

## 7<sup>th</sup> STEP



More than **1.000 parents** and their children participated in workshops "**Take the food in your hands**", organized by kindergartens and included activities and crafts with main ingredients fruits and vegetables not consumed because of their "ugly" appearance or because they were in surplus and legumes and nuts that had passed their expiry date.

A **famous chef** in collaboration with children and their parents offered a special fruitsalad.

The Central Market of Thessaloniki supplied the event with over **100kg fresh vegetables and fruits**, that otherwise would been wasted, either because they were in surplus, or due to "ugly" appearance such as crooked carrots, ugly tomatoes and eggplant with "character".



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# Cr-EAT-ive School Methodology

The methodology.....**Training seminars to kindergarten canteens**

*On the way....*

**8<sup>th</sup>** STEP



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# Cr-EAT-ive School Methodology

## The methodology.....Evaluation



### Fact Sheet: Cr-EAT-ive School Results

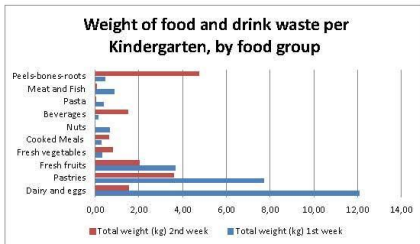
Kindergarten: **Mpillios Stegi, Kalamaria Municipality**  
 Kindergarten Heads: 2  
 Children: 100  
 Families: 100  
 Canteen cooks: 2  
 Pilot families: 7

#### Key message

- Food Waste Reduction: 43,78 %
- Family Budget Reduction: 56,21%
- Reduction between 1<sup>st</sup> and 2<sup>nd</sup> week (2<sup>nd</sup> week, parents were informed about the guidelines)

The average weight of food and drink waste per family, per year is **181,8 kg** and cost **681,19 €** before their information of food waste reduction guidelines at home and after their information **102,2 kg** and costs **298,29 €**.

The following diagram shows a clear reduction of food and drink waste in all food groups, besides the unavoidable food (peels, bones, roots).



### Fact Sheet 1<sup>st</sup>

### Kindergarten

### Food Waste Diary Questionnaires

primary  
evaluation

9<sup>th</sup> STEP

#### Key message

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- average weight of food and drink waste per family, per year is **181,8 kg**
- average cost per family, per year **681,19 €**

Very organized effort, the two stages of provision of information gave enough time to reflect on possible ways to reduce food waste. At the same time the duration of the pilot wasn't long enough so as to lose interest on the topic.

- The diary helped me to have a real picture of what I actually waste
- The pilot duration was not enough to change my behavior. Parents need to keep on working on this on their own which is a challenge
- The material given to me was very comprehensive and helpful and something I can hold on to and try to implement from now on
- The material really helped me, I wish it was given to more people to implement at home
- The material had some new advice on how to minimize waste that I wasn't aware of but I knew and implemented most things anyhow
- The guide was a useful summary of advice for all kinds of food. More people should

be given such guidance

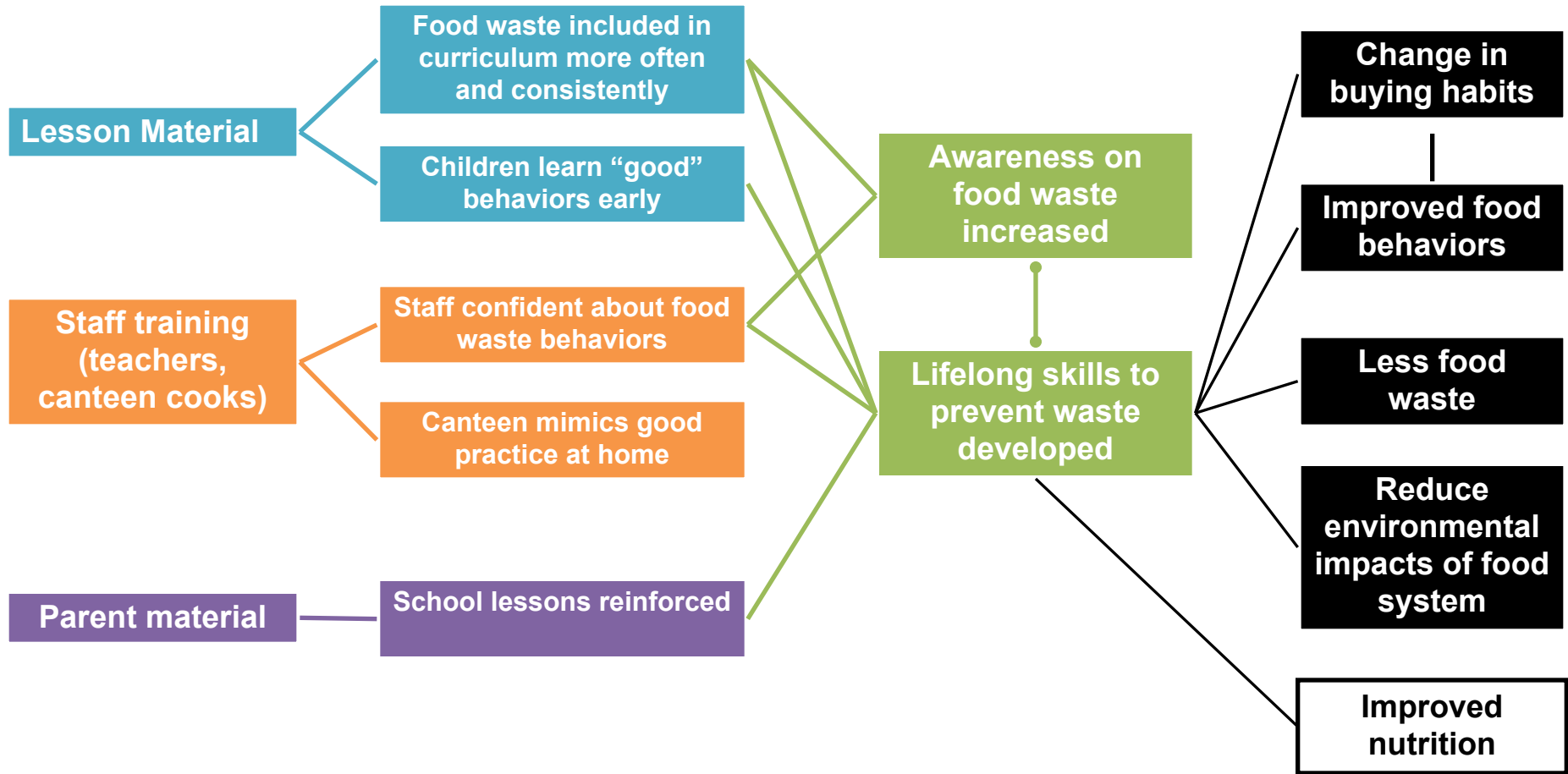


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# Concept Cr-EAT-ive Schools

## Benefits



# Lessons learned

- ✓ Children responded perfectly to the issue of food waste and they have start pressuring their parents to stop wasting food
- ✓ Good relationships formed with parents through the seminars
- ✓ Parents can support children at home and reinforce messages
- ✓ Kindergarten Heads can replicate the methodological procedure to other Kindergartens.
- ✓ Effective engagement of Kindergarten Heads
- ✓ Integration of the project to Kindergarten activities and timetable in order to create synergies and ensure the maximum participation
- ✓ Easy to use pilot action material



# Policy Measures

## **Policy measures that have helped the Creative project.**

- Overall education policy of municipality including topic of food waste prevention.
- Support of local municipality helped gain initial entrance (introduction) to kindergartens.
- Provision of location for the awareness event on 10<sup>th</sup> of May by the local municipality.

## **Additional policy measures that would be useful for the project.**

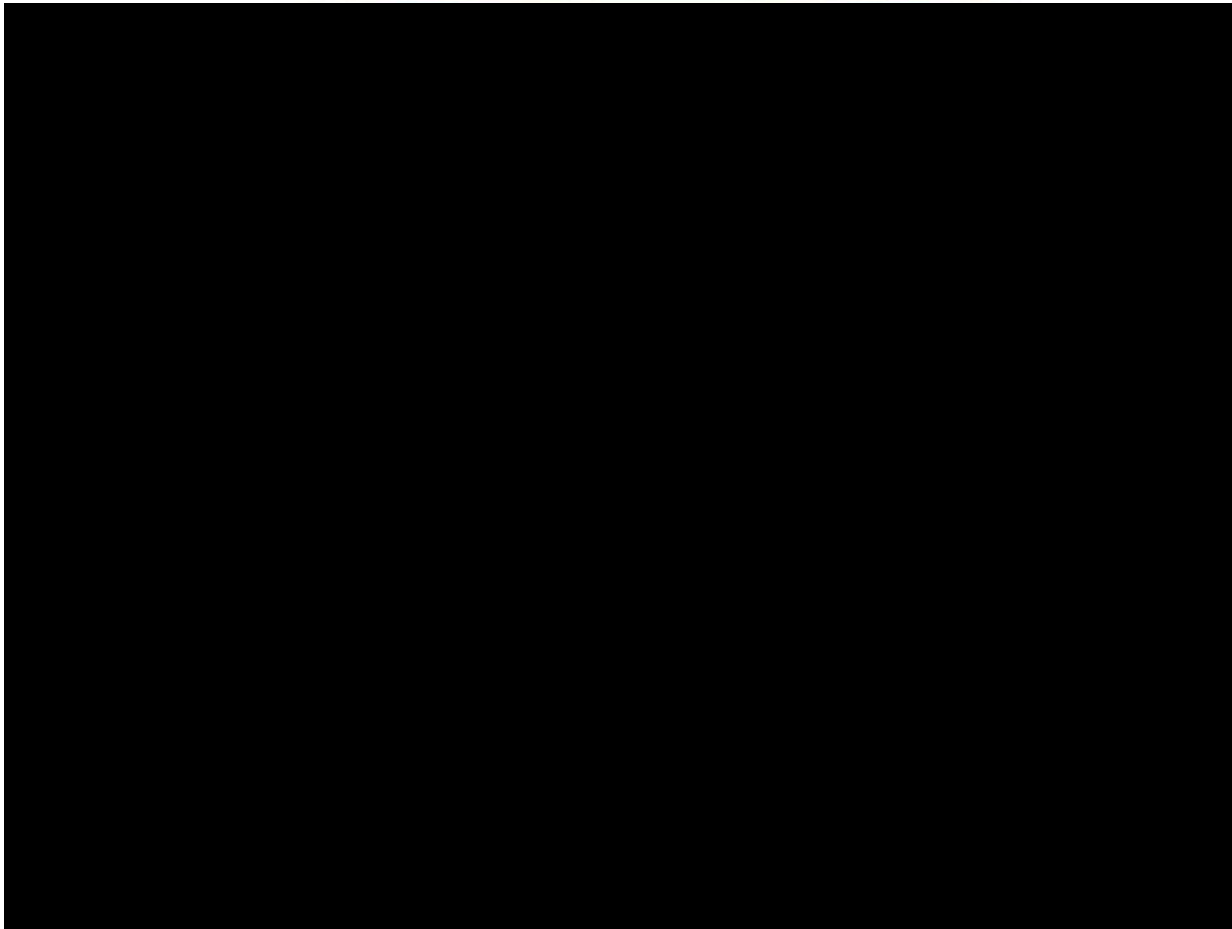
- Funding by local municipality of printing costs of awareness materials.
- Support by local municipality in replication of the project by encouraging other kindergartens to be engaged.
- Potential for local municipality to include the topic in curriculum for kindergartens
- Potential for Ministry of Education to include the topic in curriculum for primary schools
- Support from Ministry of Education to gain introduction to primary schools.



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# Thank you!



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