

## **2nd International Conference on Sustainable Solid Waste Management**

### **Greek Waste Prevention Programme: A Challenge on the Way to Zero Waste Economy**

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ENVIROPLAN S.A.  
Consultants & Engineers

# Contents of Presentation

- 1. Brief Description of the Project*
- 2. Subject of the Project*
- 3. Current Waste Prevention Actions in Greece*
- 4. Justification for selected priorities and targets*
- 5. Waste Prevention Measures*
- 6. Proposed Measures*
- 7. Proposed Actions*
- 8. Conclusions*

# Brief Description of the Project

- **Project Title:**  
National Strategic Waste Prevention Programme
- **Contracting Authority:**  
Ministry of Environment, Energy and Climate Change  
(YPEKA)  
SOP Environment and Sustainable Development (EPPERAA)
- **Contractor / Consultant:**  
ENVIROPLAN S.A. Consultants & Engineers
- **Date of Contract:** 28/05/2013

# Subject of the Project

## Project Phases of National Waste Prevention Programme



# Current Waste Prevention Actions in Greece (1)

- **Actions Financed via Environmental EU programmes (e.g. LIFE):**
  - Development and Demonstration of a Waste Prevention Tool for Local Authorities – WASP Tool (LIFE10 ENV\_GR\_000622)
  - Development of Pay As You Throw Systems in Hellas, Estonia and Cyprus” Project (LIFE 07/ENV/GR/000271 HEC-PAYT),
- **Actions for Waste Prevention and Sustainable Consumption implemented by Private Enterprises:**
  - Packaging Waste Prevention – Coca-Cola HBC
  - Environmental Sustainability Actions of Carrefour - Marinopoulos Group – Greece
  - Environmental Sustainability Actions of OTE - COSMOTE
  - Environmental Sustainability Actions of Titan Cement Company
  - RECYCOM - Clothing and Footwear Recycle
- **Actions of NGO’s, corporations and voluntary organizations**
  - Non Expired Medicine Collection
  - Collection and Distribution of food excess for charitable purposes
- **Exchange of goods and reuse**
  - Internet Platforms for exchanging goods
- **Green Public Procurement**
  - Established but not active yet
- **Voluntary Agreements**
- **Ecolabeling**

# Current Waste Prevention Actions in Greece (2)

- The majority of preventive actions focus on reducing MSW generation, i.e.:
  - paper
  - packaging
  - biowaste
- Other actions are related to:
  - Construction and Demolition Waste (C & D)
  - Bulky waste (i.e. furniture)
  - Waste Electrical and Electronic Equipment (WEEE)
  - and Hazardous like medicine
- Some recorded actions are for industrial waste from Cement Industries and food and beverage industry.

# Current Waste Prevention Actions in Greece (3)

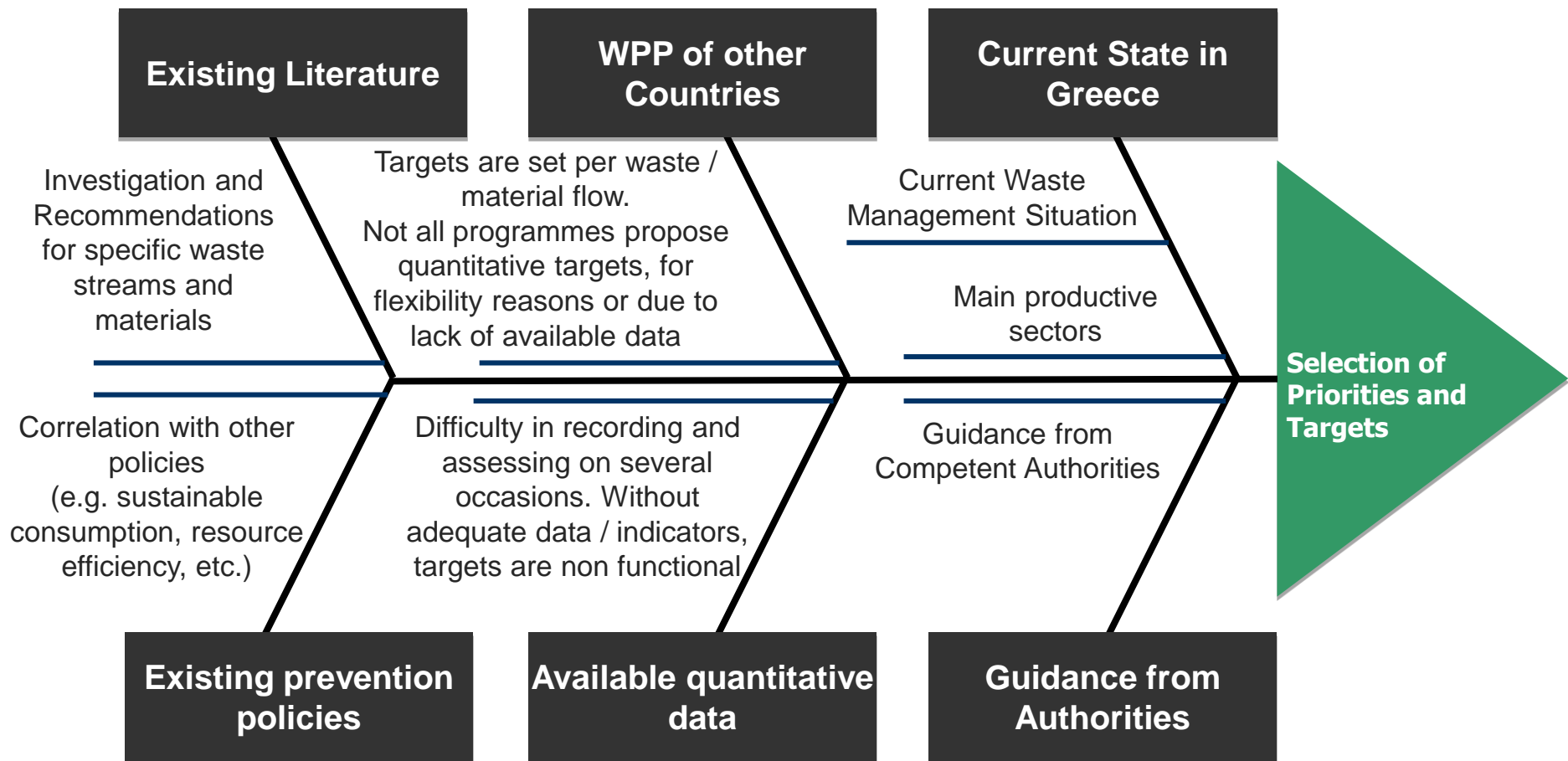
- Most of the actions focus on:
  - Households
  - Commercial activities, e.g. Restaurants and retail trade
  - Tourism
  - Industry (mainly bottling and cement)
  - Public sector
  - Construction activities

# Current Waste Prevention Actions in Greece (4)

- Most of the actions have been recently launched and have limited local application
- They do not consist part of any ongoing policy
- Often there are no recorded results of these actions
- Many of them were quiet popular to the public interest, while others are not particularly successful
- Some can be characterized as innovative while others are related to donations and charities
- The most widely applied actions could be considered those related to Public Awareness



# Justification for selected priorities and targets (1)



# Justification for selected priorities and targets (2)

- Currently, several WPP of other EU Countries are already in compliance with the provisions of the WFD and are published, e.g.:
  - Austria
  - Belgium (Brussels)
  - England (2013)
  - Finland
  - Germany(2013)
  - Ireland
  - Luxembourg
  - Poland
  - Portugal
  - Scotland (Zero Waste Plan) (2013)
  - Wales (2013)

# Justification for selected priorities and targets (3)

## Quantitative and qualitative targets per waste category

Waste Streams	Austria	Belgium - Brussels	Finland	Luxembourg	Poland	Portugal	Germany	Sweden	Wales	England
Food Waste / Organics										
C & D Waste										
Hazardous										
Household / MSW										
Paper										
Packaging										
WEEE/Batteries										
Industrial										
Bulky										
Other									 	



Qualitative Target



Quantitative Target

# Justification for selected priorities and targets (4)

- Non-quantified targets have been selected:
  - Ambitious targets are set in certain WPP with extensive experience in the prevention, e.g. Belgium.
  - Recently published WPP from countries with significant experience in waste prevention has not set specific quantified targets. Typical example is the WPP of Germany, pursuant to which the non adoption of quantitative targets provides great flexibility in the choice of waste prevention measures
- Preventing waste in sectors/ waste producers identified in the investigation of the current situation, i.e. tourism, industry, commerce, households, will be promoted by proposing appropriate measures / actions, rather than establishing specific targets per waste producer.

# Justification for selected priorities and targets (5)

- **No targets are set for agricultural waste:**
  - The only European country that so far has included agricultural waste in WPP [Ireland- Smarter (Resource efficient) farming] is not related to waste prevention measures, but mostly to procedures to minimize / processing waste through composting / anaerobic digestion and recycling of waste bulk packaging.
- **No targets are set for industrial waste:**
  - The trends of industrial production can be affected by various factors, such as economic conditions and increase of imports.
  - The lack of recording (partially or in total) in specific waste flows leads to use of estimates to determine the waste quantity.
  - Improper provision of data from companies that are obliged to submit annual waste report leads to erroneous results.

# Justification for selected priorities and targets (6)

- **No targets are set for C & D waste:**

- C & D waste generation is directly related to the economic conditions and economic growth.
- No detailed data are available for the total C & D waste generation, just estimations.
- The effect of various waste prevention measures in this sector is characterized by uncertainty and is difficult to be quantified.
- Because C & D waste (i.e. demolition waste) is derived from infrastructure built several years ago, generated C & D waste as waste prevention indicator has reduced relevance to waste prevention actions.
- The promotion of sustainable building as a waste prevention measure can not be connected to monitoring indicators.

# Justification for selected priorities and targets (7)

- **No targets are set for hazardous waste:**
  - The generated quantities are small at country level.
  - Regarding Small Quantities of Hazardous Substances in Municipal Waste, and in general, it is indicated to succeed better separation from the main stream of MSW, which subsequently will lead to an increase in the recorded amounts, which were not previously identified. Thus, it is difficult to achieve quantitative target for reduction of hazardous waste.

# Justification for selected priorities and targets (8)

- Municipal Solid Waste are not priority area, as a whole, but only the following waste streams:
  - Food Waste
  - Paper
  - Packaging Material / Waste
  - Large numbers of existing waste prevention measures in Greece and abroad mainly focus on these materials.
  - The selected waste streams consist of a significant percentage in the composition of MSW.
  - According to the literature, these priority streams have high potential for waste minimisation after the implementation of appropriate waste prevention measures.



# Justification for selected priorities and targets (9)

## Proposed priority areas / targets

### **Food Waste: Promoting food waste reduction**

Mainly in households, but can be extended to foodservice, retail, food industry, health units, hotels and schools.

### **Paper: Promoting reduction in paper consumption**

Mainly in households, schools, businesses, public services and tourist facilities

### **Packaging Material / Waste: Promoting packaging waste reduction**

Mainly in households, schools, businesses and tourist facilities

### **WEEE: Promoting Reuse of EEE**

Mainly in households, but can be extended to schools and public services.

**Geographical and Administrative Implementation:** National, particularly in major urban areas.

**Short term / Long term :** Short-term, within a time horizon of 6 years from the entry into force of the WPP

# Waste Prevention Measures

## Annex IV of WFD 2008/98/EC

### Measures that can affect the framework conditions related to waste generation

### Measures that can affect the design and production and distribution phase

### Measures that can affect the consumption and use phase

1. Planning measures, or other economic instruments promoting the efficient use of resources
2. Promotion of research and development into the area of achieving cleaner and less wasteful products and technologies - dissemination and use of the results
3. Development of effective and meaningful indicators of the environmental pressures associated with the waste generation
4. Promotion of eco-design
5. Provision of information on waste prevention techniques to facilitate the implementation of BATs
6. Training of competent authorities as regards the insertion of waste prevention requirements in permits under 96/61/EC
7. Inclusion of measures at installations not falling under 96/61/EC
8. Awareness campaigns or the provision of financial, decision making or other support to businesses.
9. Voluntary agreements with consumers, producers, businesses, industries
10. Promotion of environmental management systems
11. Economic instruments (e.g. Incentives, obligatory payment)
12. Awareness campaigns and information provision for public or consumers
13. Promotion of creditable eco-labels
14. Agreements with industry, e.g. product panels in the framework of Integrated Product Policies
15. Integration of environmental and waste prevention criteria into calls for tenders and contract
16. promotion of the reuse and/or repair

# Proposed Measures (1)

## ● Proposed General Measures

- Development of Waste Prevention Programmes by Local Authorities
- Development of Sectoral Prevention Programmes (e.g. Utilities Organisations and Public Service, tourist facilities, etc.)
- Promotion of Uniform Waste Prevention Implementation at Installations not falling under Directive 2010/75/EU
- Promotion of Environmental Management Systems in Organisations from Public and Private Sectors
- Recording of Prevention Actions

# Proposed Measures (2)

## ● Priority Area: Food Waste

- ✓ Development, continuation and completion of current projects on public awareness
- ✓ Promotion of waste prevention during purchasing of products and public awareness campaigns
- ✓ Promotion and implementation of waste prevention measures in schools, universities, etc.
- ✓ Promotion of agreements between industry and commerce
- ✓ Promotion of donations of surplus foods

## ● Priority Area: Paper

- ✓ Development, continuation and completion of current projects on public awareness
- ✓ Promotion of waste prevention during purchasing of products and public awareness campaigns
- ✓ Promotion and implementation of waste prevention measures in schools, universities, etc.
- ✓ Further promotion of eco-label "EU-Ecolabel"
- ✓ Promotion of reuse
- ✓ Online transactions of public and private sector

# Proposed Measures (3)

## ● Priority Area: Packaging and Packaging Waste

- ✓ Promotion of environmental research/new technologies/access to environmental information regarding waste prevention
- ✓ Diffusion of information on eco-design and prevention of waste resources. Further improvement of products and provide initiatives for eco-design in procurement.
- ✓ Development, continuation and completion of current projects on public awareness
- ✓ Promotion of voluntary agreements on waste prevention
- ✓ Economic instruments for prevention of single-use plastic bags
- ✓ Promotion of waste prevention during purchasing of products and public awareness campaigns
- ✓ Promotion of agreements between industry and commerce
- ✓ Promotion of integration of environmental and waste prevention criteria into tenders.
- ✓ Promotion of reuse

# Proposed Measures (4)

- Priority Area: Waste Electrical Electronical Equipment (WEEE)
- ✓ Promotion of integration of environmental and waste prevention criteria into tenders
- ✓ Promotion of reuse and / or repair
- ✓ Promotion of repair centres

# Proposed Measures (5)

## ● No Priority Area: Municipal Waste

- ✓ Provision of information to enterprises by public bodies on waste prevention
- ✓ Development, continuation and completion of current projects on public awareness
- ✓ Promotion of voluntary agreements on waste prevention
- ✓ Introduction of "Pay-as-you-throw" systems
- ✓ Promotion of waste prevention during purchasing of products and public awareness campaigns
- ✓ Promotion and implementation of waste prevention measures in schools, universities, etc.
- ✓ Further promotion of eco-label "EU-Ecolabel"
- ✓ Promotion of agreements between industry and commerce
- ✓ Promotion of integration of environmental and waste prevention criteria into tenders
- ✓ Promotion of reuse and / or repair
- ✓ Promotion of repair centres

# Proposed Measures (6)

## ● No Priority Area: Industrial Waste

- ✓ Provision of information to enterprises by public bodies about the potential waste prevention
- ✓ Training of competent authorities in order to take into consideration waste prevention in permits
- ✓ Industrial Symbiosis

## ● No Priority Area: Construction and Demolition Waste (C & D Waste)

- ✓ Promotion of environmental research/new technologies/access to environmental information regarding waste prevention
- ✓ Diffusion of information on eco-design and prevention of waste resources. Further improvement of products and provide initiatives for eco-design in procurement
- ✓ Provision of information to enterprises by public bodies on waste prevention
- ✓ Development, continuation and completion of current projects on public awareness
- ✓ Promotion of voluntary agreements on waste prevention
- ✓ Promotion and implementation of waste prevention measures in schools, universities, etc.
- ✓ Promotion of agreements between industry and commerce
- ✓ Promotion of reuse and / or repair



# Proposed Actions (1)

## ● Proposed Horizontal Actions

### Horizontal Communication and Publicity Actions

- ✓ Logo and Corporate Identity of the National WPP and / or the "Prevention"
- ✓ Website of the National WPP
- ✓ Press Office
- ✓ Polls and researches (carried out in 3 phases) at national level
- ✓ Awareness events, Education, Information (Conferences / Seminars / Participation in other events). The application is at central level in terms of coordination and at regional / local level in implementation
- ✓ Workshops
- ✓ Mass Media Involvement and Utilisation
- ✓ Publications & Productions: Informative & Promotional Material
- ✓ Establishing synergies with other actors
- ✓ Call Centre / Centre for Public Information

# Proposed Actions (2)

## ● Proposed Horizontal Actions

### Horizontal Promotional Actions

- ✓ Development of local Waste Prevention Plans (e.g. financial resources for local authorities in order to develop prevention programmes, Award and drafting of prevention plans in pilot municipalities)
- ✓ Development of sectoral prevention plans (for retail, catering, tourism, construction, food and beverage industry, public sector)
- ✓ Promotion of waste prevention implementation at installations not falling under Directive 2010/75/EU (e.g. Design of a central-umbrella waste prevention programme, initiating sub-programmes and working groups, internet platform)
- ✓ Promotion of environmental management systems in organisations of public and private sectors
- ✓ Detailed recording of waste prevention actions in appropriate database

### Horizontal Regulatory Framework Actions

- ✓ Amendments to legislation in relation to the standards of tourist accommodation facilities

# Proposed Actions (3)

## ● Proposed Actions: Priority Area - Food Waste

### Communication and Publicity Actions

- ✓ Creation and Operation of a Website specifically for the field of Food Waste
- ✓ Creation of accounts in social networks
- ✓ Publications and Productions – Informational and promotional material (e.g. Advertising – Radio/TV spots, Posters and banners)
- ✓ Communication actions targeted at Consumers (e.g. “Best Practice” Guides, Events / Meetings, Polls)
- ✓ Communication actions targeted at Businesses (e.g. “Best Practice” Guides)
- ✓ Communication actions targeted at Education (e.g. “Best Practice” Guides, Awareness, educational and training events)

### Promotional Actions

- ✓ Promotion of voluntary agreements (hospitality sector, food chain and the retail sector)
- ✓ Promoting food donations

# Proposed Actions (4)

## ● Proposed Actions: Priority Area - Paper

### Communication and Publicity Actions

- ✓ Create special section on the official website of the National WPP
- ✓ Press releases
- ✓ Enhancing EU-ecolabel communication
- ✓ Information and Awareness Events & Meetings
- ✓ Paper Waste Prevention Best Practice Guide for the Offices
- ✓ Further promotion of the paper waste prevention communication message to the public through public utility bills (electricity, water, etc.)

### Promotional Actions

- ✓ Promoting of reused books through coordination and promotion of events
- ✓ Promoting of reused books through reuse and repair centers
- ✓ Promoting electronic transactions, both in the public and in the private sector (e.g. workgroups of stakeholders / parties / firms, Support to the enterprises)

# Proposed Actions (5)

## ● Proposed Actions: Priority Area - Packaging Materials / Waste

### Communication and Publicity Actions

- ✓ Promotional Materials
- ✓ Best Practices Guide in Industry
- ✓ Press Releases
- ✓ Media relations
- ✓ Organization of Informational and educational events and workshops
- ✓ Awareness & Encouragement events for adopting of "Best Practices"
- ✓ Polls for recording change in consumer behavior on the use of plastic bags

### Promotional Actions

- ✓ Promoting environmental research / innovative technologies focusing on prevention (e.g. working groups for investigation of innovative technologies for food packaging)
- ✓ Dissemination of information on eco-design in product design
- ✓ Promotion of voluntary agreements for waste packaging prevention (hospitality and retail sector)
- ✓ Promoting reuse (reusable bags and packaging)

### Regulatory Framework Actions

- ✓ Economic instruments for reducing quantities of single use plastic bags
- ✓ Promote integration of waste prevention in Green Public Procurement

# Proposed Actions (6)

## ● Proposed Actions: Priority Area – WEEE or EEE

### Communication and Publicity Actions

- ✓ Dissemination of Information on Reuse and Repair Centers
- ✓ Organisation of Workshops for Potential Partners in Reuse and Repair Centres
- ✓ Harnessing the 'synergy' of MEECC with the General Secretariat for Consumer Affairs

### Promotional Actions

- ✓ Promoting the reuse of EEE in Municipalities through social structures and partnerships with NGOs
- ✓ Promoting the reuse of EEE in reuse and repair centers
- ✓ Create guides for the reuse and repair operations and adoption model for the reuse of EEE

### Regulatory Framework Actions

- ✓ Promote integration of waste prevention in GPP

# Proposed Actions (7)

## ● No Priority Area: Municipal Waste

### Communication and Publicity Actions

- ✓ Create dedicated section on the official website of the National Waste Prevention Plan
- ✓ Social Networks and prevention of MSW
- ✓ Promotion/communication of EU Ecolabel
- ✓ Dissemination of Information on Reuse and Repair Centers
- ✓ Media Relations

### Promotional Actions

- ✓ Promoting the reuse of clothing, furniture and other goods (toys, CDs, DVDs, bicycles, etc.) through reuse and repair centers
- ✓ Coordination via the municipalities of used products (Setting a department within the Municipalities for coordinating and implementing actions regarding reuse and communication with NGOs)

### Regulatory Framework Actions

- ✓ Investigation of possible implementation of “pay as you throw” system in Greece

# Proposed Actions (8)

## ● No Priority Area: C&D (Construction and demolition waste)

### Communication and Publicity Actions

- ✓ Informing the local community on C&D waste and provide guidance for the proper implementation of preventive measures through the distribution of leaflets
- ✓ Workshops/events for industries, businesses, and professionals associated with the generation of C&D waste
- ✓ Educational seminars for employees in businesses related to the production and management of C&D waste

### Promotional Actions

- ✓ Organisation of meetings and setting up of working groups (e.g. the construction industry, consultants and engineers, institutions)
- ✓ Setting a plan for sustainable construction and creation of website / platform
- ✓ Planning and funding pilot projects to develop innovative technologies
- ✓ Dissemination of information on eco-design (e.g. developing teaching materials and eco-design tools, database of building materials, eco-design guidelines)
- ✓ Promotion of voluntary agreements for waste prevention
- ✓ Promotion of integration of waste prevention in GPP (e.g. Coordination of working groups on the Action Plan for Green Public Procurement)
- ✓ Planning and funding of pilot programmes (creating a supply network of reused materials, certification of reused materials)



# Proposed Actions (9)

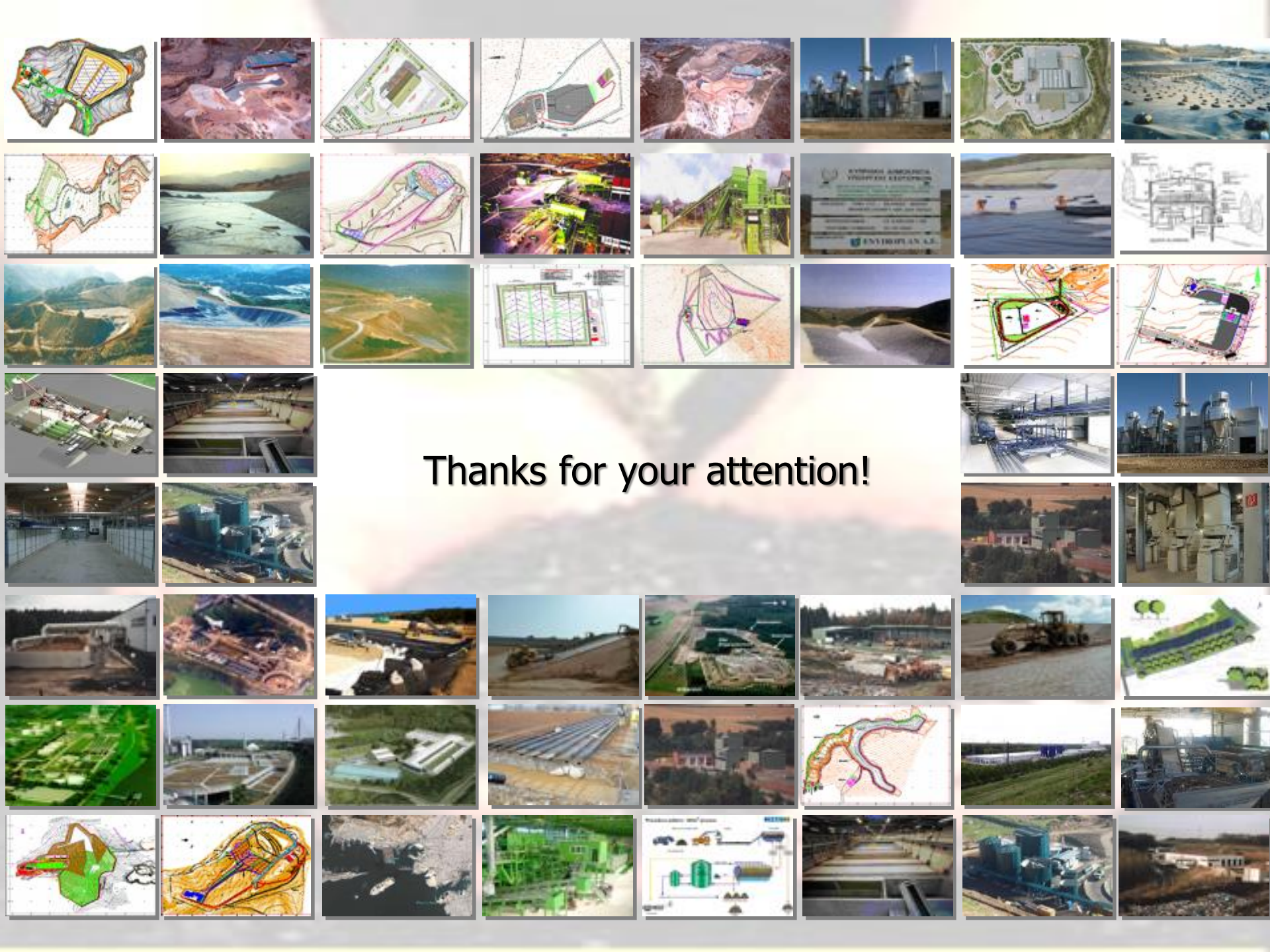
## ● No Priority Area: Industrial Waste

### Promotional Actions

- ✓ Promotion of industrial symbiosis
- ✓ Organisation of meetings with involved stakeholders and immediate setting up of working groups in order to identify opportunities to promote and finance industrial symbiosis in Greece
- ✓ Exploration of possibilities for coordination of synergies at national level (Setting of a National Program for Industrial Symbiosis or an Agency or other)

# Conclusions

- The Greek Waste Prevention Programme is:
  - ✓ A coherent tool for Integrated Waste Policy
  - ✓ A first step to organised and well structured Prevention Strategy at National level
  - ✓ A challenging opportunity to change the development model
  - ✓ An ambitious programme aiming gradually to zero waste society.



Thanks for your attention!