The Regional Integrated Waste Management System of Western Macedonia

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DIADYMA SA was founded in 1998, with the participation of 61 "Capodistrian" Municipalities & Communities - being one of the largest inter-municipal partnerships at country level.

Shareholders (today after the new “Kallikratis” administrative structure): The 12 Municipalities of the Region of Western Macedonia - Aminteo, Voio, Grevena, Deskati, Eordea, Kastoria, Kozani, Nestorio, Orestida, Prespa, Serbia-Velvento & Florina

The main objective of the Company since its establishment was the design, implementation and operation of the Integrated Waste Management Plan in Western Macedonia Region, through the application of sustainable management methods, in order to achieve the objectives of the National and European legislation on waste management, with the lowest cost to the citizen.
The IWMS has been in operation since July 2005 and consists of:

- The Integrated Waste Management Central Facilities (IWMCF) where the Municipal Solid Waste is processed and finally disposed of.
- The 10 Local Waste Management Units, where the mixed waste, recyclable materials, bulky, electrical and electronic waste, green and other separately collected waste streams are initially registered and transferred and then through LWMU are transhipped and transported to the IWMCF.
1st Phase: Ensure Landfill and restoration of Dumpsites XAΔA (2003-2007)

- Construction of 9 LWMU, 1 Regional Sanitary landfill (A & B Cells), Supplies of mobile equipment for waste transfer and land filling (Cohesion Fund, 13 million €)
- 207 Uncontrolled dumpsites were restored (38 with funding of 6 million € from Operational program ‘Environment and sustainable development” (EPPERAA), 169 with funding of 3 million € from program THISEAS “Development Program for Local Government )

2nd Phase: Development of Recycling with Collection at Source programs & Exploitation of waste with the MBT plant (2009-2015)

- Development of Collection at Source programmes with the use of four different bins (each for different recyclable material) (ESPA 4 million €, Hellenic recovery recycling corporation 1,5 million €)
- Construction of C’ cell of sanitary landfill and Supplementary mobile equipment (ESPA 10 million €)
- Signing of Contract for the construction of MBT plant - through PPP project Total Investment 48 million €)
3rd Phase: Prevention and Reuse (2016-2020)

- **Green Points Network for reuse and exploitation**
  - a) Urban type “Green Points” in specific settlements (<3,000 inhabitants)
  - β) Collection of items for reuse in Materials Reuse Centers (logistics centers)
  - γ) Networking of facilities – Online access for citizens (e-platforms)

- **Expansion of existing networks of Collection At Source of recyclable materials**

- **Development of Collection At Source networks for biowaste**

- **Information and public awareness raising actions on waste prevention**
Local Waste Management Unit (LWMU)

- Transshipment of mixed waste
- Management of Recyclable materials
- Area for reuse centers
Integrated Waste Management Central Facilities

- A' and B' cells for sanitary landfill
- 3rd Cell of sanitary landfill
- Maintenance center for equipment
- Regional Recycling Center
- Bulky waste management unit
- Weighing building
- Administrative building
- Entrance
Integrated Waste Management Central Facilities

MBT plant - Sanitary landfill

- Administrative building
- Weighing building
- Compost storage
- Refinery Unit
- Compost unit
- Wastewater Treatment Unit
- Reception unit
- Sanitary landfill
- Maintenance building
- Mechanical Sorting Unit
- Preprocessing
- Apothkeuse Anakuklwsimwn
- Orimansi Kompoi
DIADYMA SA And European Projects (1)

Finished:

Development of Innovative Actions in Waste Management
Knowledge Clusters of Western Macedonia - Information Society Program

Recycling and Material Recovery: Regional Environmental Management Capacity and Infrastructure
INTERREG IIIA Greece – FYROM

LESS WASTE - Joint Waste Prevention Plans and Promotion of Recycling
INTERREG CBC Programme “Greece – Albania”

WASTE-C-CONTROL - Waste Management Options for Greenhouse Gases Emissions Control
LIFE+ Programme 2007-2013
**Under implementation:**

**LIFE M3P:** “Material Match Making-Industrial Symbiosis”  
LIFE Programme 2014-2020

**LESS-WASTE-II:** “Development of an Action Plan for the Management of Bio-wastes at the Cross-Border Region Greece-FYROM”  
Interreg IPA Cross-border Cooperation Programme "Greece - The former Yugoslav Republic of Macedonia 2014-2020"

**SYMBIOSIS:** “SYMBIOTIC NETWORKS OF BIO-WASTE SUSTAINABLE MANAGEMENT”  
Interreg IPA Cross-border Cooperation Programme "Greece - The former Yugoslav Republic of Macedonia 2014-2020"
WASTE RREACT: Integrated waste management facilities for boosting recycling and composting in 7 Regions through cross-border activities
Interreg IPA Cross-border Cooperation Programme “Greece - Albania 2014-2020”

GREENPOINT-MOB: Development of a mobile Green Point at the cross-border region and promotion of prevention and recycling
Interreg IPA Cross-border Cooperation Programme "Greece - The former Yugoslav Republic of Macedonia 2014-2020"

LESS-WASTE-II: Promotion of waste prevention and recycling at the cross-border area
Interreg IPA Cross-border Cooperation Programme "Greece - The former Yugoslav Republic of Macedonia 2014-2020"
Circular Economy: Project LIFE M3P (1)

Material Match Making Platform for promoting the use of industrial waste in local networks

The project aims to develop local networks to improve the treatment of industrial waste, to promote its use in other local businesses and to reduce the need for processing, storage and transport.

A "smart" electronic business platform will be created to match different materials, waste and by-products to promote industrial co-operation and the circular economy.
Another objective of the project is to demonstrate the utility (value and added value) of such a digital electronic platform at European level for the recording, use and exploitation of industrial waste produced in a local area.

Such exploitation can improve the overall efficiency of industrial processes through increased waste use in the area itself and less reliance on waste disposal.
Sectors in the local area

Italy/ Lombardy
- Textiles and clothing
- Plastic
- Wood

Spain/ Asturias
- Construction

Belgium/ Flanders
- Several sectors

Greece/Western Macedonia
- Fur
- Wood
Information and awareness raising actions on prevention issues

• Continuation of information actions in schools in Western Macedonia

• Over the past 2.5 years, 12,000 Kindergarten, Primary, Secondary and High School students have been actively involved.

• Organization of conferences and informative events

• Exploitation of the MBT plant's multi-purpose room for student education
What we achieved

- Closure and restoration of 207 uncontrolled dumpsites and application of land filling in 2005

- Implementation of programs for collection at source for 4 streams of recyclable packaging materials (paper, plastic, metals and glass) from 2009

- Recycling of around 18,000 tones / year of packaging materials, ie 80% of the target, of which 30% are sorted by source

- Processing the biodegradable fraction of waste to > 80% from 2017
Thank you for your attention!