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# **LIFE-IP CYzero WASTE: Intelligent monitoring and efficient waste reduction in Cyprus Island**

## **LIFE20 IPE/CY/000011**

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# STATE OF PLAY OF MUNICIPAL SOLID WASTE

## Recycling waste

- CY 2020 municipal waste recycling rate was 16.8%
- EU 2025 target >55%, 2030 target >60% and 2035 target >65%

## Packaging waste

- CY 2020 packaging waste recycling was 66.8%
- EU 2025 target >65% and 2030 target >70%

## WEEE

- CY 2020 capacity of WEEE was 300.000tn
- EU target on separate collection >65% of electrical and electronic equipment sold or >85% of WEEE generated

## Waste to landfill

- CY 2020 municipal waste landfilling rate was 67% (364.140tn)
- EU 2035 target <10%

# NATIONAL WASTE MANAGEMENT PLAN 2022-2028

To achieve the EU targets, through the implementation of the NWMP 2022-2028 the following national targets for the separate collection of biowaste and recyclable waste and landfilling should be achieved, based on projected quantities municipal waste:

| CY TARGETS up to 2025 and 2030         |   |
|--|---|
| Separate collection of biowaste        | 155,000tn up to 2025 & 160,000tn up to 2030 |
| Separate collection of recycling waste | 200,000tn up to 2025 & 240,000tn up to 2030 |
| Landfill of residues waste             | 100,000tn up to 2025 & 90,000tn up to 2030  |

# AMENDMENT OF THE WASTE LAWS

- Significant changes have been introduced through the amendment of the Waste Laws and full competence has been given to local authorities for the management of municipal waste.
- In July 2022, Regulations were passed setting out the precise obligations of local authorities for the management of municipal waste. Specifically, local authorities must:
  - ✓ By 31.12.2023 prepare local waste management plans and waste prevention programmes
  - ✓ By 30.6.2024 establish separate collection systems for municipal waste, including for the separate collection of organic waste, recyclables, textiles and bulky waste
  - ✓ By 30.6.2024 establish pay-as-you-throw schemes, as a financial incentive for separate collection.
- The introduction of a landfill tax is currently assessed as part of study carried out by the Ministry of Finance to be introduced by 2025.

# CHALLENGES & RECOMMENDATIONS [1]

- Heavy reliance on landfilling
  - > Use **economic measures** to reduce landfilling and incineration (i.e. landfill tax)
  - > Process of implementing **waste reforms** that will result in a more circular approach and in an increased re-use and recycling rates in years leading to 2025 and beyond.
- Data quality issues, related to the generation of packaging waste
  - > Improve **data management system** to present coherent and verifiable data sets, especially for packaging waste.

# CHALLENGES & RECOMMENDATIONS [2]

- Insufficient infrastructure and systems for the separate collection and treatment of bio-waste
  - > Focus on expanding effective capacity for the **separate collection** of waste at municipal level.
  - > Encourage households to **sort waste streams** by providing measures for re-use and recycling such as pay-as-you-throw and deposit-return schemes.
  - > Introduce **treatment of biowaste**, support home and communal composting, enable its use as a fertilizer and soil improver, and establish national quality standards for compost/digestate from bio-waste.
  - > Further develop **waste treatment infrastructure** that improves prevention, re-use, recycling targets through the use of EU funds.
  - > Promote **awareness-raising activities** to enhance citizen's participation in waste management.



# LIFE IP CYzero WASTE PROJECT AT A GLANCE

- The project runs **8 years** from 01/10/2021 until 30/09/2029
- Budget **€14.785.848** (EU co-funding 60%)
- **Complementary Funding** of €66mil. from Structural Funds 2021-2027 & Recovery and Resilience Fund 2021-2026.
- **Partners:**
  - ✓ Coordinating Beneficiary: Department of Environment (DoE)
  - ✓ Associated Beneficiaries: National Technical University of Athens (NTUA), Agricultural Research Institute, Cyprus Chamber of Commerce and Industry, 10 Municipalities, 5 Development Agencies
- **Actions:**
  - ✓ 3 Preparatory Actions
  - ✓ 10 Concrete Actions
  - ✓ 4 Monitoring Actions of project's impact
  - ✓ 3 Communication & Dissemination Actions
  - ✓ 2 Project Management and monitoring actions of project progress



# LIFE IP PROJECT OBJECTIVES

Development of **waste pilot actions** in local authorities to promote the practical implementation of waste prioritisation:

- Separate sorting at the source of biowaste, recyclable materials & hazardous household waste
- Preparation for repair and reuse
- Collection of marine litter and discarded fishing equipment, including fishing boat mooring lines

Implementation of specific **waste management actions** that will support and strengthen the implementation of waste prioritization and separate collection of waste streams, to ensure the diversion of waste from landfills.

**Raising of awareness** among stakeholders and the general public about the concept of circular economy and its connection to the waste sector.

Development of **secondary material standards** to implement the circular economy.

Mobilisation of additional financial resources to support the **effective implementation** of the National Waste Management Plan 2022-2028 and the Waste revention Programme Plan 2022-2028.

Strengthening of the use of **financial instruments** to support the circular economy.

Implementation of actions to **prevent food & agricultural waste** generation.

Introduction of institutional changes to create of a **Waste Management Coordinating Body**.

**Dissemination of project results** and support for their implementation and reproduction in other areas of the island.



# LIFE IP PREPARATORY ACTIONS

- A1. Assessment of the current situation, update studies at national level, mapping of stakeholders
- A2. Preparatory technical and economic studies for demonstration projects.
- A3. Study for the establishment of the Coordinating Body between the Central and Local Government.

## LIFE IP CONCRETE ACTIONS

- C1. Biowaste source separation and management schemes by installing of home and decentralised units in mountainous and remote areas in Cyprus.
- C2. Installation and operation of 50 Green Kiosks for dry recyclables in mountainous and remote areas
- C3. Implementation of Household Hazardous Waste (HHW) collection and management either by towed mobile units that will tour different areas, or by HHW management centers.
- C4. Foodwaste and agrowaste prevention actions on creating an effective system to monitor and prevent food waste generation along the entire food supply chain from production to consumption
- C5. Construction and operation of 2 reuse and repair centres and second-hand store network.
- C6. Monitoring and optimising of the “Pay As You Throw” Scheme
- C7. Marine debris collection and management system
- C8. Application of economic instruments
- C9. Capacity building activities
- C10. Establishment of the Waste Management Coordinating Body

# LIFE IP MONITORING ACTIONS

D1. Key Performance indicators.

D2. Monitoring of Circular Economy Indicators at national scale and for key economic sectors and value chains.

D3. Monitoring the project environmental impact.

D4. Monitoring the project socio-economic impact.

# LIFE IP COMMUNICATION ACTIONS

E1. Public awareness, involvement and dissemination.

E2. EU-level and international dissemination and networking.

E3. Project replication and transfer strategy and implementation .

# LIFE IP PROJECT MANAGEMENT ACTIONS

F1. Overall project management, monitoring and reporting to the EC.

F2. Complementary Funding Monitoring and Mobilisation.

# LIFE IP PILOT ACTIONS

## WASTE STREAMS

BIOWASTE

RECYCLABLE WASTE

WASTE STREAMS

HAZARDOUS HOUSEHOLD WASTE

MARINE WASTE & DISCARDED FISHING EQUIPMENT

FOOD WASTE & AGRICULTURAL WASTE

Municipalities

Communities

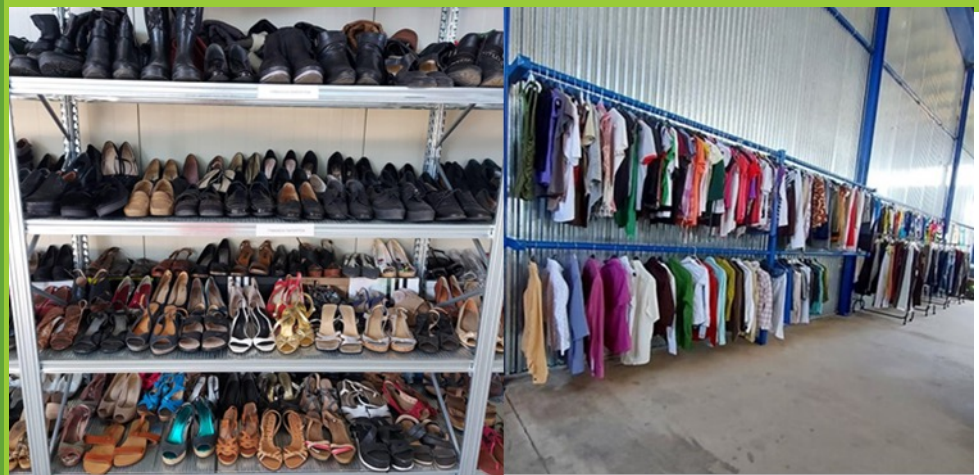
Fishing shelters

PILOT AREAS



## 2 reuse and repair centres in Nicosia and Limassol and second-hand store network

- The **aim of the centres** is to collect, sort, repair and reuse various waste materials such as electrical appliances, furniture, clothes, books, toys and other household items.
- The collected items will be able to be purchased from **second-hand shops in urban areas**, thus creating a network between the Centers and the cities.
- According to the NWMP 2022-2028 today there are only **small-scale product repair and reuse initiatives** in Cyprus targeting specific waste streams such as textiles, furniture and Waste Electrical and Electronic Equipment (WEEE). Other reuse initiatives exist, such as beverage / soft drink refilling systems and wooden pallet repair, but there is no systematic monitoring and promotion of reuse activities.
- The **23 Green Points** in Cyprus are also considered to have the potential to be partially used as pre-sorting and preparation sites for reuse.





# Home and Community Compost Units

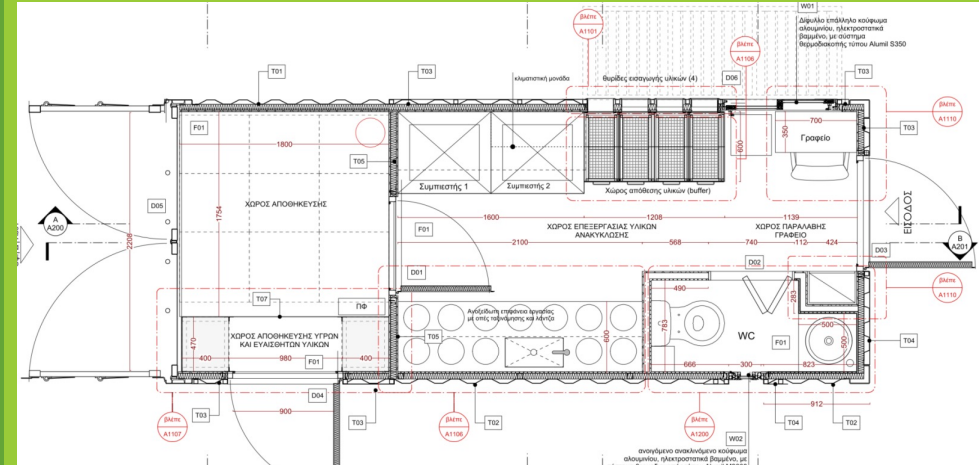


- Establish separate collection systems for organic waste by:
  - ✓ Installment of 6 community compost units in mountainous areas and all over Cyprus
  - ✓ Installment of home compost units in mountainous areas
  - ✓ Utilization of the existing infrastructure of 2 MBTs in Larnaca and Limassol and/or creation of an additional infrastructure for the treatment of organic waste
- Develop technical specifications and tender documents
- Site visits to 63 plots all over Cyprus



# 50 GREEN KIOSKS FOR DRY RECYCLABLES

- Establishment of a separate collection systems for dry recyclables and support the PAYT scheme
- Placement of Green Kiosks in central locations in mountainous and remote areas not served by collective systems.
- Under development of technical specifications and tender documents.
- Under assessment of more than 50 plots all over Cyprus.
- Signed Agreement between local authorities and the Department of Environment.





- The project "Management of hazardous waste from households" aims at the separate collection and diversion of hazardous waste from households to licensed hazardous waste management facilities for appropriate treatment.
- Indoor areas for the collection of hazardous household waste such as electrical and electronic appliances, batteries, paints, solvents, ink cartridges, paints, lamps, cleaning products, medicines.

## 4 mobile units on Hazardous Households Waste



WEBSITE: [www.epikindynaapovlita.com](http://www.epikindynaapovlita.com)

INSTAGRAM: [www.instagram.com/epikindynaapovlita.cy](https://www.instagram.com/epikindynaapovlita.cy)

FACEBOOK: [www.facebook.com/epikindina.apovlita](https://www.facebook.com/epikindina.apovlita)

YOUTUBE: [www.youtube.com/channel/UCva1ENzmVUvqml09fkYsdWQ](https://www.youtube.com/channel/UCva1ENzmVUvqml09fkYsdWQ)



# LIFE IP EXPECTED RESULTS

1. Operation of **50 green kiosks** in remote areas for the separate collection of recyclable materials.
2. Development and operation of **decentralised and household composting units** in remote, mountainous and semi-mountainous areas.
3. Development and operation of **2 reuse and repair centers** and organization of a network of second-hand stores.
4. Development and operation of **4 mobile units and 2 centers** for the collection and management of hazardous household waste.
5. Review and evaluation of the **“Pay As You Throw”** scheme.
6. **Data Recording and monitoring** the production of food waste and agricultural waste in Cyprus.
7. Development of an **electronic platform** to monitor and manage the prevention of food and agricultural waste production.
8. Development of a tool for **mapping & monitoring marine litter** and establishment of collection stations.
9. Development of **standards for determining secondary materials**.
10. Organisation of **information days and campaigns** for proper waste management based on the principles of the circular economy.
11. **Education** and organisation of targeted capacity building workshops for capacity building and skills development for waste management.
12. Creation of new **green jobs**.

## Structural Funds 2021-2027

€51.7 mil.

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Establishment of a system of sorting at source and separate collection of recyclable and organic waste and implementation of PAYT system with pre-paid bag – **€25 mil.**

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Waste Utilization Plan of sorting at source and separate collection of recyclable and organic waste - **€15 mil.**

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Solid municipal waste reduction program of beach hotel units and related waste production areas for the districts of Limassol and Pafos - **€8.8 mil. Equipment only**

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Implementation of sorting at source in Mountainous Cyprus - **€1.5 mil.**

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Integrated project management, information, communication and monitoring system - **€1.42 mil.**

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Study on the establishment of a Coordinating Body between Central and Local Government for Waste Management - **€60.000**

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# Recovery and Resilience Fund 2021-2026 - €14.3 mil.

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Supply, installation and maintenance of 50 community composters and construction of staging area & supply of 2,000 capacity household compost units 300L & 500L - **€7.0 mil.**

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Installation of 2 Reuse and Repair Centers in Nicosia and Limassol and stores selling reuse items - **€4.0 mil.**

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Supply, installation and maintenance of 50 Green Kiosks - **€3.3 mil.**

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Feasibility Study on the establishment of a Coordinating Body – No budget under RRF

# CHALLENGES on Circular Economy

- Timely implementation of the measures to **improve the infrastructure** for the separate collection and management of waste to ensure adequate capacity for the treatment of waste
- Timely and successful implementation of the **separate collection of municipal waste and the PAYT schemes** to ensure reuse/recycling and landfill targets are met
- Ensure the implementation of appropriate **standards for separate collection in municipalities** to ensure high capture rates of recyclable waste
- **Improve monitoring** and ensure consistent, reliable data to assess progress to targets and evaluate measures
- Introduction of the **landfill tax and other economic tools** to promote waste prevention and appropriate management in line with the hierarchy
- Develop and adopt measures to **increase the circular material use rate**, as recommended in the EIR Report



# Thank you Ευχαριστώ

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