Circular Economy Implementation in Greece.

Waste Prevention Actions for the WEEE and Food Waste Priority Streams: the LIFE REWEEE and LIFE IP CEI Greece Projects

Prof. Katia Lasaridi
53.6 Mt of e-waste was generated worldwide in 2019, which translates to 21% up in just 5 years.

Global e-waste will reach 74 Mt by 2030, which translates to almost a doubling of e-waste tonnage in just a decade and a half.

931 Mt of food waste was generated in 2019, which suggests that 17% of total global food production is wasted. Food waste appears more than twice the previous estimate, and wasted food accounts for 8-10% of global GHGs.

With 7 years left to reach the SDG 12.3 target of halving food waste by 2030 and reducing food losses by at least 25%, the pace of actions must increase. This makes e-waste the world’s fastest-growing waste stream.

People affected by hunger rose to 828 million in 2021, which translates to 21% up in just 5 years.

Food waste appears more than twice the previous estimate, which suggests that 17% of total global food production is wasted. Food waste accounts for 8-10% of global GHGs.

With 7 years left to reach the SDG 12.3 target of halving food waste by 2030 and reducing food losses by at least 25%, the pace of actions must increase. This makes e-waste the world’s fastest-growing waste stream.

Source: UN Global E-waste Monitor 2020
Project Title
“Development and Demonstration of Waste Electrical & Electronic Equipment (WEEE) Prevention and Reuse Paradigms”

Implementation Duration
January 2016 – August 2020

Project Objective
WEEE reduction and reuse strategy implementation

Total Budget
€2,161,405
EC contribution 60%
LIFE+ Environment

Action Areas
➢ Greece
➢ Belgium

Website: www.reweee.gr
Facebook: reweeeGR
Twitter: @LReweee
Platform Re(W)eee: www.reweee.hua.gr/el

Coordinator Beneficiary
Co-Beneficiaries

appliances recycling s.a.

ε.ο.αv. Ecological Recycling Society
GREEN FUND
HAROKOPIO UNIVERSITY
### Activities

<table>
<thead>
<tr>
<th>Promotion of WEEE Prevention Culture in GR</th>
<th>Preparing for re-use activities</th>
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</thead>
<tbody>
<tr>
<td>• Development of donation/exchange platform (<a href="http://www.rewhee.hua.gr/en">www.rewhee.hua.gr/en</a>)</td>
<td>• Standards development for infrastructures &amp; preparing for re-use activities</td>
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<tr>
<td>• Promotion of repair culture: Quick guide for repair (<a href="http://www.rewhee.gr">www.rewhee.gr</a>)</td>
<td>• Infrastructures for sorting &amp; preparing for re-use activities</td>
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<td>• Implementation of Repair Café events (7 Cafés)</td>
<td>• Events for promotion of preparing for re-use initiatives</td>
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- Development and pilot operation of 2 Sorting Centers of WEEE in Attica and Central Macedonia for the first time in GR

- Promotion of WEEE Prevention Culture in GR Activities
# Sorting Centers Operational Plan

<table>
<thead>
<tr>
<th>Activities</th>
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<tbody>
<tr>
<td><strong>Sorting:</strong></td>
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<tr>
<td>• WEEE Handling – Loading / Unloading</td>
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<tr>
<td>• Load inspection</td>
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<td>• Categorization in the WEEE categories</td>
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<tr>
<td>• Weighting</td>
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<tr>
<td><strong>Preparing for re-use:</strong></td>
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<tr>
<td>• Sorting of WEEE driven for treatment or preparing for re-use activities – visual inspection</td>
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<tr>
<td>• Initial Inspection</td>
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<tr>
<td>• Functional tests</td>
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<tr>
<td>• Data erasing</td>
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<tr>
<td>• Software removal / installation</td>
</tr>
<tr>
<td>• Repair</td>
</tr>
<tr>
<td>• Repeat tests</td>
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<tr>
<td>• Cleaning</td>
</tr>
<tr>
<td><strong>Put on the market / donation:</strong></td>
</tr>
<tr>
<td>• Packaging</td>
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<td>• Product guarantee</td>
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</tbody>
</table>
## Sorting Centers Data Analysis (Feb 2019 – Aug 2021)

<table>
<thead>
<tr>
<th>Sorting Center</th>
<th>Period</th>
<th>Total input (Mixed WEEE to be sorted to categories as set by EU WEEE legislation) (kg)</th>
<th>QUANTITIES (kg)</th>
<th>PREPARING FOR REUSE ACTIVITIES</th>
<th>FURTHER INSPECTION</th>
<th>SALES/DONATION</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td>Initial Inspection</td>
<td></td>
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<td></td>
<td></td>
<td></td>
<td></td>
<td>Sorted categories (Categories of interest to be visually inspected) (kg)</td>
<td>Second phase of visual inspection (kg)</td>
<td></td>
</tr>
<tr>
<td>ΧΕΡΜΕΣ ΙΚΕ (Central Macedonia)</td>
<td>7/2019 - 8/2021</td>
<td>1,902,457</td>
<td>1,682,805</td>
<td>953,308</td>
<td>458,039</td>
<td>292,738</td>
</tr>
<tr>
<td>ECORESET (Attica)</td>
<td>2/2019 - 8/2021</td>
<td>10,239,903</td>
<td>5,276,919</td>
<td>2,135,963</td>
<td>16,481</td>
<td>2,119,482</td>
</tr>
<tr>
<td>TOTAL OVERALL</td>
<td></td>
<td>12,142,360</td>
<td>6,959,724</td>
<td>3,089,271</td>
<td>489,565</td>
<td>2,400,958</td>
</tr>
<tr>
<td></td>
<td>%</td>
<td></td>
<td>OF TOTAL INPUT</td>
<td>OF CATEGORIES OF INTEREST</td>
<td>OF 2nd PHASE/PASS</td>
<td>OF VISUAL INSPECTION /FAIL</td>
</tr>
<tr>
<td>OVERALL</td>
<td>57%</td>
<td></td>
<td>44%</td>
<td>15%</td>
<td>84%</td>
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circulargreece

no time to waste

02
**Aim:**

**Partners:** 20

**Duration:** 8 years (1 Nov 2019 – 31 Oct 2027)

**Actions:**
- **A.** Preparatory actions,
- **C.** Concrete implementation actions,
- **D.** Monitoring of the impact of the project actions,
- **E.** Public awareness and dissemination of results,
- **F.** Project Management and monitoring of project progress

**Budget:** €15.94MM (EU co-funding: 60%)

**WEBSITE**
www.circulargreece.gr

**SOCIAL MEDIA**
The Project Objectives

1. Operation of 3 Enhanced Green Centers (EGCs) (1 in the Municipality of Thessaloniki and 2 in the Municipality of Athens) to support Reuse activities, apart from the separate collection of waste.

2. Development and operation of five (5) integrated waste management systems implementing the waste hierarchy and the new legislative framework on waste based on the principles of circular economy (4 in insular areas: Municipalities of Tinos, Alonissos, Thira, Paros & Antiparos and 1 in a mountainous area: Municipality of Nafpaktia).

3. Development and operation of 2 integrated hazardous household waste collection and management systems (in the Municipality of Athens and in the Region of Western Macedonia).


5. Development of a baseline for registering and monitoring food waste generation.


11. Organization of thirteen (13) regional awareness-raising events (info days).
Food Waste Prevention Action Plan: (Sub-action A1.1i)
- Empowering individuals and businesses to become champions in reducing food waste
- Creative strategies and practical tips for preventing food waste at every stage of the supply chain

Waste Warriors: Improvement of the waste treatment knowledge base (Sub-action A1.1ii)
- Harnessing cutting-edge technologies to transform food waste into valuable resources
- Advancing our understanding of waste treatment methods for a greener future

Waste Watchers: Review of existing food waste prevention program (Sub-action A3.3)
- Identifying successful initiatives from around the world to inspire effective action
- Evaluating and adapting proven strategies to suit our unique local context

Numbers Matter: Baseline & annual assessment of food waste generation (Sub-action C4.1)
- Comprehensive analysis to understand the scale and impact of food waste
- Ongoing monitoring to track progress and drive continuous improvement

Food Saver Nexus: Development & Operation of a Food Waste Prevention Monitoring & Management Platform (Sub-action C4.2)
- A centralized platform to facilitate real-time tracking of food
- Efficient food donation hub facilitating communication and seamless food donation between potential donors and receivers

Waste-Free Warriors: Excess food & food waste prevention demonstration actions (Sub-action C4.3)
- Showcasing practical examples of preventing excess food and reducing waste

Food waste related actions

S Stronger Together: Development of local/regional alliances for agro-food waste management (Sub-action C5)
- Collaborating with key stakeholders to build a network of waste management partners
- Sharing resources, knowledge, and expertise to tackle food waste collectively

Knowledge Empowerment: Capacity building workshops (Sub-action C7.1)
- Empowering individuals and organizations with practical skills and knowledge
- Training sessions on waste reduction, resource optimization, and sustainable practices

Minds United: Development of a Stakeholder Food Waste Prevention Forum (Sub-action C7.2)
- A platform for exchanging ideas, discussing challenges, and identifying innovative solutions
- Fostering collaboration between government, businesses, NGOs, and communities

Learn from Anywhere: Distance Training for stakeholders (Sub-action C7.3)
- Engaging remote participants through virtual training and webinars
- Ensuring inclusivity and enabling knowledge-sharing regardless of location

Circular Economy Hub: Development of a web-based National Circular Economy Repository (Sub-action C7.4)
- A comprehensive online resource center for circular economy practices
- Promoting sustainable waste management, recycling, and upcycling initiatives
Thank you!

Prof. Katia Lasaridi
e: klasaridi@hua.gr