

# **Circular Economy (CE) Eco Parks: An integrated approach**

G. Iliopoulos<sup>1</sup>, A. Bourka<sup>1</sup>, D. Bourkas<sup>1</sup>, N. Chalkias, O. Bourka<sup>1</sup>

<sup>1</sup>EPTA Environmental Consultants Engineers, Athens, Greece

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Presenting author email: [giliopoulos@epta.gr](mailto:giliopoulos@epta.gr)

## **Introduction**

Circular Economy is a key policy within EU due to its significance in the environmental protection in parallel with economic development.

All the main aspects of the Circular economy are strongly connected with economic activities such as repair and reuse centers, sorting and final recycling facilities, new production plants with raw material from recyclables, energy production units from waste, etc.

The sitting and economic viability issues for the abovementioned economic activities are of great importance in order to tackle new investments needed in order to close the loop inside EU.

At the same time social impacts of the new activities have to be taken into account in order to enhance the environmental protection and attract citizens interest and raise their awareness.

An answer to the abovementioned critical issues on realizing new investments in economic activities related to Circular Economy and Society, is the integrated approach of a Circular Economy ( CE) Eco Park .

## **Basic elements of a CE Eco Park**

Typically such kind of Parks are

- 1) multi-theme Parks with industrial, services, social, environmental, educational uses
- 2) open space areas for the citizens with green and leisure activities
- 3) having innovation activities in order to promote the circular economy new applications
- 4) capital and laborintensive investments in order to include state of the art technologies and skilled personnel

Due to the abovementioned elements , designing a CE Eco Park , needs at early stages a Master Plan and a prefeasibility study to be undertaken and agreed with the local authorities and the a specific roadmap with the relevant stakeholders ( Ministries, Private Sector Stakeholders, International and National Financial Institutions) in order to mature and operate in a 5-10 yrs period.

## **Economic Activities relate to resource efficiency**

The core activities of a CE are the following related to resource efficiency and have to be included in such kind of Parks :

- Green Point – Reuse, Repair and Recycle at Source Center
- Material Recovery Facilities – Mechanical treatment Plant , Composting Plant , SRF/RDF plant
- Energy Recovery Facilities – Thermal Treatment Plant , Anaerobic Digestion Plant

In order to close the loop inside the Park if it is economic viable , there are some final recycling activities that could be included:

- New Paper, Plastic production ready for the market, from recycled raw material
- New compost production ready for the market , from biowaste selected at source raw material

## **Other Activities complementary to the main economic activities of a CE Eco Park**

The activities that are complementary to the main economic activities of a CE Eco Park are the following

- Warehousing of materials-Logistic Center
- Innovation and Research Center
- Energy Saving and Production installation for CO2 footprint minimization
- Green Areas for leisure, sports and environmental awareness activities