Life Cycle Assessment

Helping you save money and the environment

5 Litre Bio-bin® and 30 Litre Bio-bin® – non-sharps medical waste containers

Independent Assessment Undertaken
by Blue Marble, February 2024

What are Bio-bins®?

Bio-bins are an environmentally friendly way to dispose of your clinical and medical waste. The non-sharp waste containers are crafted from 96% paper, with the sole goal of creating greener and more eco-friendly medical and lab facilities. They are designed to arrive flat-packed to save space in your stores and they weigh just grams, reducing the cost of your waste disposal bill.

Each bin has been developed with a Bio-matt™ in the base of the bin which has been specifically designed to soak up any excess liquid form the waste, whilst the waterproof coating prevents any leakage.

What is Life Cycle Assessment and how is it used?

A Life Cycle Assessment (LCA) provides a unique approach to managing and relating the environmental impacts of a product to its supply chain and life cycle from cradle to grave. It requires a thorough investigation of processes across a product's life cycle, including the disposal of the bin (in this case this is assumed to be incineration). At each stage of the product's life, resource consumption results in environmental impacts, as shown in Figure 1.

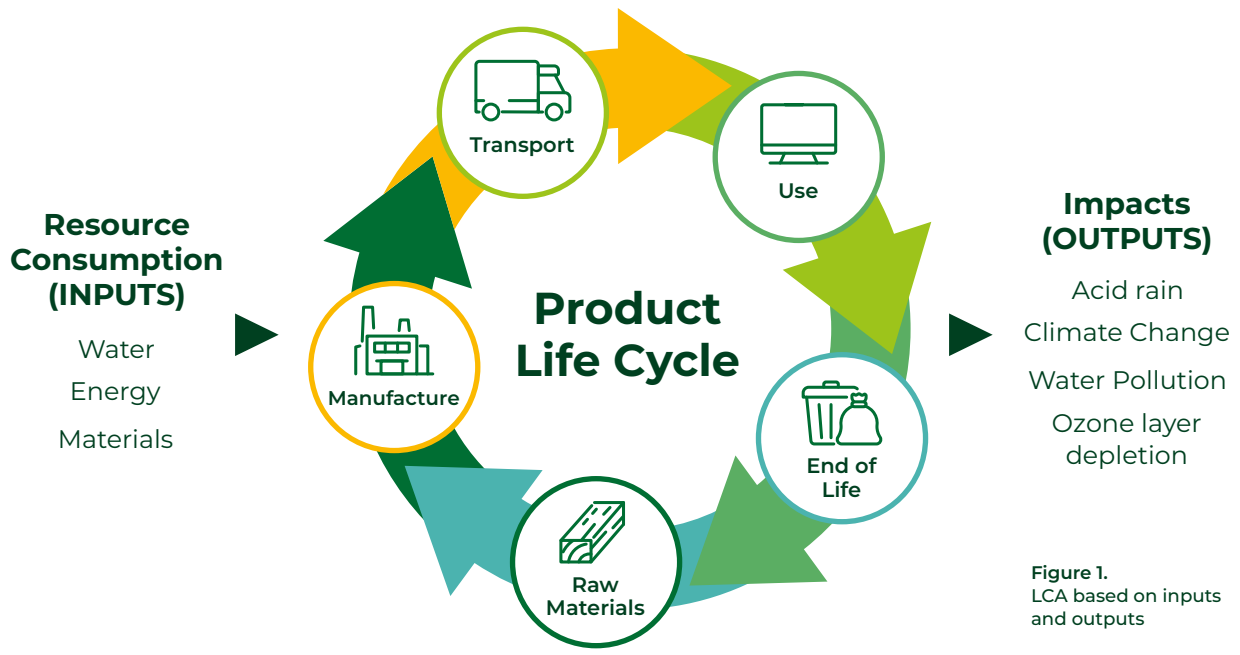
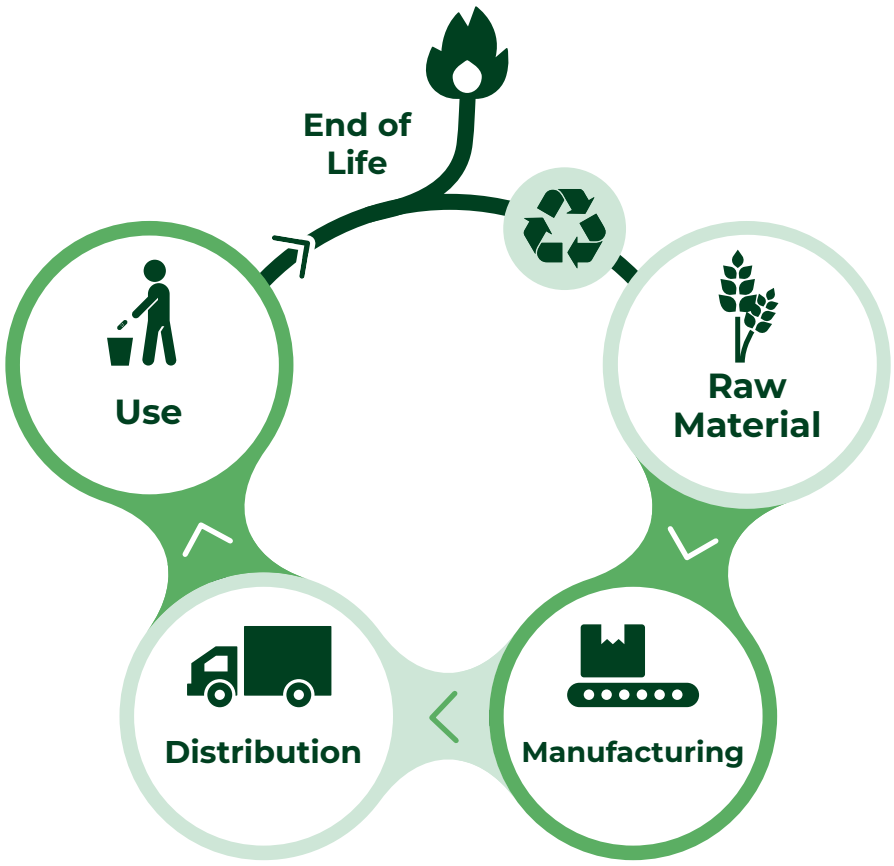


Figure 1.
LCA based on inputs and outputs



The importance of a Cradle to Grave LCA

In the evaluation of a product's life cycle, it becomes crucial to account for every stage, commencing from the extraction of raw materials (cradle) to the culmination of its utility and disposal (grave). A meticulous examination of the entire life cycle allows LCA to capture the environmental consequences associated with each phase. A narrowed focus on a specific life cycle stage or overlooking certain phases might result in assessments that are incomplete or potentially misleading.

The adoption of a cradle-to-grave perspective by LCA ensures that the assessment comprehensively encompasses the overall environmental impacts throughout all life cycle stages.

Standards and Scope

Reference standard	ISO 14040/14044 , ISO 14067
Scope	Cradle-to-Gate plus End-of-Life (Benefits of Recovery Reported Separately)
Author	Blue Marble Environmental Partnerships Ltd.

Environmental Data Summary

5 Litre Bio-Bin®
0.109 kg

GWP[1] (kgCO2e)
0.18
Bio-bin®

30 Litre Bio-Bin®
0.854 kg

GWP[1] (kgCO2e)
1.22
Bio-bin®

[1] Global Warming Potential – based on IPCC methodology.
Unit of measurement is in kilograms of carbon dioxide equivalent.

Total KG Co_2 eq per like-for-like plastic alternative

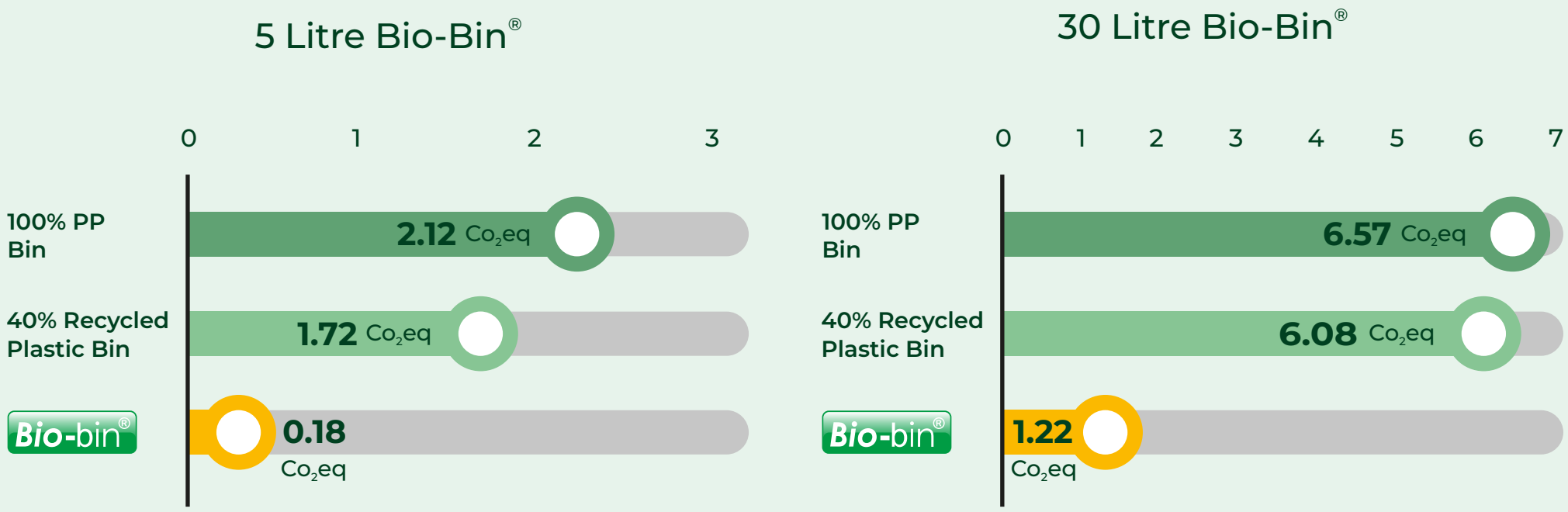


Figure 2.
Comparative data based upon existing dataset located here:
https://woodsafe.green/wp-content/uploads/2023/10/LCAWoodsafe_Full.pdf

If you would like to make a positive change in the way that your medical facility or lab disposes of waste and reduce your carbon footprint, request your free sample at www.bio-bin.co.uk

Let's lead the way towards a greener and more sustainable future for healthcare.

For more information or to see the full LCA, please contact **info@bio-bin.co.uk**

Up to
91%
Reduction in Carbon Footprint

Life Cycle Assessment of Econix Ltd

Bio-bin®

Trusted Data Blue Marble™