## BIOBOX - THE MACHINES FOR WASTE DISPOSAL AND RECYCLING IN MEXICO

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In Mexico City is successfully developed the <u>BioBox social</u> <u>responsability project</u> to facilitate and promote recycling through a smart urban machine capable of identifying and recycling particular materials such as aluminum and PET.

BioBox works like a soft drink machine, but vice versa, rewarding who discharges waste with Payback points to be used for

discounts in stores, transports, cultural initiatives and other services.

In other countries of the world already exist machines that return the cost of packaging. The inventor of BioBox, Carlos Eduardo Bustamante, adapted the idea for Mexico with the purpose of strengthening recycling initiatives in the country, rewarding the ecological actions of the users.

In 2014 he launched the new recycling business and with an interdisciplinary team he began to work on the design of the whole process: devise the necessary software and hardware, obtain the permits, install the recycling machines, put them to operation, collect the objects to be recycled and take them to the processing plants to obtain new products. The company created a first prototype of the machine and through a long process of experimentation in 2017 managed to produce and patented an efficient model.

The Biobox machine works in two ways, compacting or crushing aluminum and PET containers, with a capacity of about 1000 pressed and 3500 crushed containers. The machine is connected online in internet and when it is almost full sends a message to the company to recollect waste in time so that the users can use a no-stop service.

The machine can identify if the packaging is aluminum or PET and depending on the material makes the appropriate recycling process, by weighting the package and separate it. The company ensures that the material reaches a recycling site in particular selling the aluminum to distributors where it is reused to make solar heaters or taking the PET to a polyester yarn plant to make blankets and clothes.

The BioBox machines, which can collect up to 1500 containers daily, currently collect around 500 and 800 containers.



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The machine, which interacts with the user through a touch screen, assign points to an electronic PayBack wallet. It is possible to gain 1 point for each single PET or aluminum bottle recycled through the machine. Points can be used to obtain discounts in shops, on means of transports, for cultural activities, or in other premises with which the company has an agreement.

The main purpose of the company that has designed the project and the BioBox machine is to give a contribution in creating sustainable recycling solutions to solve the problem of the huge amount of wastes produced by the modern society. To ensure this approach, the company involves the population, offering users an easy access tool that rewards their ecological actions, the local governments that provide the necessary support and spaces on the public highway, and other companies in the country, establishing operative alliances that allow to extend the impact of the project.

Currently, 60 BioBox machines are operating in Mexico City and the company estimates that 300 units will be installed in public streets, in commercial malls or sport centres. The company is also working with different partners to disseminate the use of BioBox in more Mexican cities and in other interested Latin American countries.

## To know more

**BioBox website** 

**BioBox press review** 

**BioBox in Facebook** 

Payback BioBox

Article in Mypress.mx

Article in Mexico.com

Article in tecreview.tec.mx

Video in Youtube

Article in cityexpress.com

Plastic pollution in CDMX

