

# Beneficial Models

Recycling has become more than a business philosophy. It is a necessary way of life for companies and individuals that wish to improve their life. The benefits of recycling are more far-reaching than ever before, and for example, the companies are learning that the more environmentally friendly they can be, the better it is for the business overall. Along with that, the people started to think about their future and the future of their kids. The problem awareness is here already, so to boost their actions many governments decided to go one step further and offer benefit models. Read more about these models below.

## Deposit-refund system

A **deposit-refund** system on plastic bottles has proven to work. Deposit-refunds are used for beverage containers, lead-acid batteries, motor oil, tires, various hazardous materials, electronics, and so on. Besides, researchers have shown that the approach can be used to address many other environmental problems beyond waste disposal – by imposing an upfront fee on consumption and subsidizing ‘green’ inputs and mitigation activities, a deposit-refund may be able to efficiently control pollution in much the same way as a Pigouvian tax.

## Pigouvian tax

A **Pigouvian tax** (also spelled **Pigouvian tax**) is a tax on any market activity that generates negative externalities (costs not included in the market price). Often-cited examples of such externalities are environmental pollution and increased public healthcare costs associated with tobacco and sugary drink consumption.

Theoretical models have shown that alternative waste disposal policies such as virgin material taxes, advance disposal fee, recycled content standards, and recycling subsidies are inferior to a deposit-refund.

And in theoretical models that consider joint environmental problems and product design considerations, the deposit-refund continues to have much to recommend it as a component of an overall socially optimal set of policies. More empirical research into deposit-refund systems is needed, particularly the ‘upstream’ systems used for many products. In these systems, instead of consumers receiving refunds for returning products for recycling, processors or collectors of recyclables receive a refund.

These systems may have lower transaction costs and better environmental outcomes than traditional downstream systems but more research is needed in this regard.

## Make recycling profitable for business

New rules on the packaging are developed to improve the recyclability of plastics used on the market and increase the demand for recycled plastic content. With more plastic being collected, improved, and scaled up recycling facilities should be set up, alongside a better and standardized system for the separate collection and sorting of waste across the EU. This will save around a hundred euros per ton collected. It will also deliver greater added value for a more competitive, resilient plastics industry.

While businesses usually begin their recycling efforts to improve their environmental footprint, benefits can be more far-reaching than many companies realize. Businesses known for their environmentally friendly policies tend to have a better reputation with prospective customers.

In a 2018 Nielsen study, 81% of global respondents feel strongly that businesses should help improve the environment. As awareness about the dangers of global warming continues to expand, concerns on environmental issues including waste are not going to diminish.

## Recyclebank

This is a waste-focused program that has the intention to change people's behavior. Recyclebank uses education, incentives, technology, and community events to encourage recycling and change the behavior of more than 4 million members. What is this program really about? Every member should change his behavior by submitting green actions and earning points because of it. Mostly the rewards are discounts, donations, or subscriptions. This business model is powered by the community. More concrete, the local businesses that got into this recycling initiative and the members that are trying to change their recycling behavior, while they enjoy the benefits from it.

**Recyclebank has three programs, read more about them below.**

1. **For Members:** Recyclebank claims to use education, rewards, and impact metrics to help people live more sustainably. On Recyclebank's website, users earn points by working their way through a tiered series of questions and answers, learning about greener living practices and pledging to follow them, and exchanging points for rewards.
2. **For Communities:** In some communities, members can also earn points for recycling at home, as Recyclebank partners with municipalities and waste haulers in different cities around the country to track home recycling and reward it. These members who can earn this way are either part of the Collect and Click the program or the Curbside program. Collect and Click subscribers are awarded points based on how much they engage with Recyclebank's website. They can earn 10 additional points for reporting that they recycled each week. Curbside members that set out their recycling containers are awarded points based on the average weight recycled by participating households on their collection route. By using RFID or GPS technology on recycling containers and the recycling truck, Recyclebank tracks which households are recycling. The collective weight is then converted to Recyclebank points and shared among all of the residents in the community that recycled.
3. **For Brands:** Recyclebank is also an advertising and sponsorship platform able to reach highly engaged consumers. Brands can sponsor content on Recyclebank and promote their own green strides, for example, Ziploc, Domtar, and Johnson & Johnson have partnered with Recyclebank to educate enthusiastic green users on how to recycle the products they sell. Once members earn points, they can then redeem them for discounts and deals from community businesses and major national brands like SC Johnson, Unilever, Macy's, as well as hundreds of community businesses, all found in Recyclebank's Rewards Catalog. In this way, it offers brands a unique opportunity to reach and engage millions of consumers by rewarding people through online and offline touchpoints.

## I Got Garbage

In India, 1.5 million waste pickers power the country's recycling, but at a severe cost to their health and wellbeing. Prashant Mehra, a social 'intrapreneur' at Mindtree, presented I Got Garbage, a

mobile and web platform he founded in Bangalore that empowers waste pickers by connecting them with households. Households enter into long-term relationships with them for recyclables pickup and can buy tools from them for home composting. This model of citizen participation puts waste pickers away from the dangers of open dumps while enabling a more comprehensive and efficient waste collection. It converts waste pickers into recycling managers. Prashant highlighted the longevity of such platforms as a key benefit of ICT for engaging citizens. But just as important as the platform is building a functional ecosystem that motivates user adoption. Currently, the platform supports over 10,000 waste pickers, has generated over 100 million Rupees in collective revenue, and is expanding to 27 cities.

## ICT to monitor services

Public Metropolitan Sanitation Company of Quito, EMASEO EP, is the municipal waste collection company of Quito, Ecuador, which serves 2.2 million residents and gathers 1900 tons of waste daily. A decade ago, Quito suffered from a severe waste problem. Dumpsters overflowed, collection services were insufficient, and citizens had limited awareness of the public waste systems and procedures. In response, EMASEO used ICT to monitor services in real-time, optimize internal process management, and improve external cleaning services. Using GIS and handheld devices, they also monitored household behavior and provided door-to-door information on ways to participate in public waste collection, schedules, and local disposal sites.