

CIRCULAR ECONOMY ENGINEERING CASE STUDY

E-Mobility Take Back



E-MOBILITY TAKE BACK

Managing a multi-country E-Mobility Take-Back Program for one of the largest multinational scooter renting company

Background and Challenge

E-scooter is a new market where companies, mainly startups, decided to focus on renting services. Waste compliance and management of this operation have some specifications that bring challenges for the companies to manage themselves, due to the use of lithium batteries. Difficult to find reliable recycling suppliers in different countries. These companies work in different countries of America and EMEA, and for a better management they prefer to have a centralized operation.

Customer Profile

Second biggest e-scooter renting company, present in more than 15 countries in America and EMEA, a startup with many rounds of funding that has high focus on safety, ESG, SDG and branding.

Objectives

Setting up a multi-country e-mobility take-back program and address legal obligations. Avoid any accidents with waste, mainly li-ion batteries, to protect their brand and customer-investor relationships. Have a centralized waste management operation of all the countries to reduce the necessity of multiple individual contracts and focal points.

The Solution At a Glance...

- Compliance Assessment
 - Assessing compliance scheme membership to optimize the cost of waste management operations and explore any off-set opportunities.
 - Volume reporting
- Supply Chain Design
 - Set a supply chain network with reliable logistics and recycling partners leveraging the PRO networks.
- Management and Reporting platform
 - To respond to this customer's need, a new tool, Circul8, was developed.
 - Orders are created via Circul8, managed by Landbell and waste volumes are reported to the customer via Circul8.
- Pricing model
 - Three pillars: management (operations and IT system), logistics and recycling fees.

For more information about the E-mobility management, please access our product sheet on:

[Circular E-Mobility](#)
[Lithium Batteries Take-Back](#)

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Status (928)	Order number	Requested	Postal code	Country	Items
requested	82	14.07.2022 18:00:07	212312	Germany	1
in progress	81	12.07.2022 02:10:05	50018	Spain	4
completed	80	23.06.2022 15:18:40	90143	Italy	1
cancelled	79	22.06.2022 23:33:56	155	Italy	1

Status	Business type	Detail type	Category family	Container type	Quantity	Weight	MoU	Contractor / Carrier	served
picked up	Batteries	Recycling	Li-ion batteries	200l drum (with verr	2	280,000	kg	Consorzio ERP Italia	05.07.2022
picked up	WEEE	Recycling	Full scooter without	Euro pallet	10	845,000	kg	Consorzio ERP Italia	05.07.2022

Key Facts/Results

- 12 COUNTRIES**
- 80 ORDERS**
- 30 TONNES OF BATTERIES**
- 120 TONNES OF SCRAP MATERIAL**