INNOVATIVE WASTE MANAGEMENT FOR AFRICA
This presentation highlights:

- The GIVO model
- SDGs & Impact
- GIVO Technology Applications in Waste Management
- JICA Project - Objectives, Activities and Outcomes
- GIVO Traction to Date
The GIVO center operates as a local hub operated by youth and women, that collects plastics from households and the environment and processes these materials into industrial products.

Key Features:
- Customized 40ft Container
- 5KVA solar inverter system
- Integrated with GIVO software solution (web platform, mobile app, Internet of Things)

Capacity: 250-300 kg of plastic recyclables collected and processed daily
Staff: 10-15 full-time jobs created.
Output: Shredded plastic granules

Benefits:
- Provision of a convenient and efficient recycling waste management solution for 10,000 community residents per center.
- Diverting waste materials from landfills, by collecting 90 metric tons annually, leading to a cleaner environment.
- Emissions capture of up to 540 tonnes of CO2 per annum.
- Creation of up to 15 full-time jobs per center
- Promote circularity by manufacturing industrial products from recyclables.
- Increase in income for depositors by paying incentives per kg of recyclables they deposit (up to $9,000 per year).
How is GIVO Innovating?

**Youth & women led franchisee model**
- Modular collecting and processing via GIVO Center.
- Community based advocacy.

**Hardware + Software Solution**
- Automating and digitizing the collection of recyclables.

**Mobile payments**
- Provide incentives and cashless payments for waste depositors.

**Vertically Integrated Value-chain**
- Value addition by producing plastic flakes from recyclables collected.
GIVO's System Map

1. GIVO conducts offline and online advocacy campaigns to educate the community on better waste management practices and increase awareness for the GIVO centers.

2. The agent weights the recyclables at the point of collection and the data (i.e., volume of recyclables deposited, incentives) is logged via IoT devices (android phone and digital scale) on the web platform.

3. An account is created for the waste depositor on the GIVO web platform. GIVO agents then go to households of depositors to pick up their recyclables.

4. The recyclables are transported to the GIVO center where it is identified, sorted, and shredded into plastic flakes.

5. The end products are shredded plastic flakes that can be used for manufacturing of new products (replacing the need for virgin plastics).

6. GIVO conducts offline and digital marketing to connect within off-takers (customers). Plastic flakes are sold to off-takers (e.g., plastic manufacturing companies) to generate revenue.

7. All the data is stored in the cloud.

8. Women in the communities can sign up to co-own the GIVO centers as franchisees. GIVO provides them with all the tools they need to succeed and they share in the center's profits. This enables us to scale rapidly.

Waste depositors can login to the web platform at any time to check the quantity of recyclables they've deposited and convert their incentives to cash. GIVO staff can also remotely monitor operations via the platform.

GIVO provides them with all the tools they need to succeed and they share in the center's profits. This enables us to scale rapidly.
### SDG’s & Impact

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<tr>
<th>SDG</th>
<th>What do we target?</th>
<th>How do we measure it?</th>
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<tbody>
<tr>
<td>5</td>
<td>5.5. Ensure women’s effective participation and equal opportunities for leadership at all levels</td>
<td>Over 60% of GIVO workforce are women</td>
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<td>8.2. Higher level of productivity by focusing on labor-intensive sectors. 8.5. Achieving full and productive employment for all staff.</td>
<td>40,000 units of consumer and industrial products manufactured.</td>
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<td>11.6. Reduce the adverse per capita environmental impact of cities</td>
<td>Competitive wages and conducive work conditions for GIVO staff.</td>
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<td>12</td>
<td>12.5. Reduce waste generation through prevention, reduction, recycling and reuse</td>
<td>Over 1800 metric tons of carbon emissions saved.</td>
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<td>14</td>
<td>14.1. Prevent and significantly reduce marine pollution of all kinds, in particular from land-based activities, including marine debris and nutrient pollution</td>
<td>120 metric tons of recyclables collected and processed to date</td>
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<td>5000 people educated on recycling</td>
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<td>90 metric tons of recyclables diverted from landfills and water bodies per GIVO center annually.</td>
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Application of Technology in Waste Management

- Internet of Things (IoT)
- Computer Vision (AI)
- Advanced Hardware
- Digital Money
Objectives:

- Improve the rate of recycling in Abuja by promoting a new “Trash to Cash” mindset - through implementation of a digital recycling platform.

- Provide an opportunity for recyclers to scale the recycling business in Nigeria by utilizing digital solutions.
JICA project - Activities

Problem solution fit to understand unique challenges affecting recycling in Abuja and recommendations to solve them.

Establishment of a GIVO center to aggregate and process recyclables within the state.

Development of a recycling marketplace to cater to all stakeholders across the value chain (depositors, customers, recyclers).
JICA project - Outcomes

**Level of Interest**
90% of stakeholders (households, government, recyclers) expressed need for incentives, awareness and a marketplace to encourage recycling.

**Advocacy**
Community outreach to over 5,000 people increasing awareness about recycling in the state.

**Depositors**
200 new depositors on the GIVO platform, thus promoting the “trash to cash” mindset.

**Collection Volume**
Over 120 kg of recyclables collected and processed from households and businesses in Abuja.
Traction

May 2019
Participated and won EPIC Plastic Innovation Challenge organized by Coca Cola.

February 2020
Collection Pilot, with the Lagos State Waste Management Authority to digitize waste collections in Lagos State.

May 2020
Processing Pilot to produce face shields and masks in response of COVID-19.

December 2020
Made 15,000th unit of PPE. Diversified production to include flower pots and abacus.

July 2021
Installation of the plastic sheet production line - First of its kind in Africa.

December 2021
Secured partnerships with FCDO, University of Warwick UK, AEPB, JICA.

July 2022
2 GIVO centers operational in Lagos and Abuja, with 3 more opening in Q3.

Our awards:
Our Partners
Thank you