INNOVATIVE SOLUTIONS TO ADDRESS :

E-WASTE CRISES

Aligning with UN SDG 12: Responsible Consumption and Production

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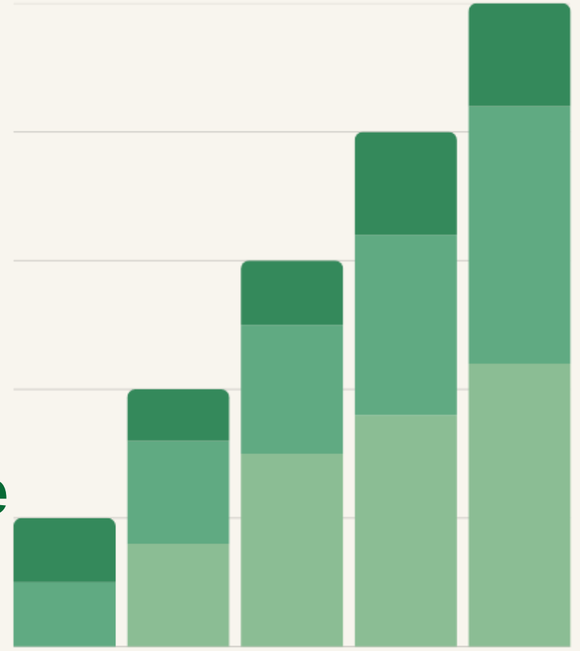
INTRODUCTION

- E-waste refers to discarded electrical and electronic devices.
- It poses significant environmental and health risks.
- UN SDG 12 aims to reduce waste generation through prevention, reduction, recycling, and reuse.
- Innovative and scalable solutions are needed to address this crisis.

UNDERSTANDING THE PROBLEM

- 50 million tons of e-waste are generated annually.
- Only 20% of e-waste is formally recycled.
- Toxic substances like lead, cadmium, and mercury contaminate the environment.
- Limited consumer awareness and lack of infrastructure worsen the problem.



every year increasing E-Waste

UN SDG 12 - RESPONSIBLE CONSUMPTION AND PRODUCTION

- Promotes sustainable consumption patterns.
- Encourages businesses to adopt circular economy models.
- Emphasizes the importance of waste reduction, recycling, and reuse.
- Ensures corporate accountability and extended producer responsibility (EPR).

PROPOSED SOLUTION OVERVIEW

- **Solution Name: Recycling E-Waste**
- **Goal: Minimize e-waste and promote circularity.**
- **Approach:**
    - **Prevent unnecessary waste generation.**
    - **Reduce through responsible production and consumption.**
    - **Recycle using advanced technologies.**
    - **Reuse through refurbishment and resale.**

KEY FEATURES OF THE SOLUTION

- **Smart E-waste Collection Network: Smart bins that detect e-waste and notify collection agencies.**
- **AI-powered Sorting Systems: Efficient separation of recyclable materials.**
- **Digital E-waste Marketplace: Platform for buying and selling refurbished electronics.**
- **Incentive Programs: Offer rewards for responsible disposal.**
- **E-waste Tracking App: Track your electronic devices from use to recycling.**

DIFFERENTIATION FROM EXISTING SOLUTIONS

- **Real-time Data Monitoring: Track e-waste generation for better management.**
- **Community Participation: Engage consumers through gamified recycling experiences.**
- **Partnership with Manufacturers: Enable sustainable product designs and recycling programs.**
- **Blockchain for Transparency: Ensure responsible disposal through transparent tracking.**

SOLUTION PROCESS FLOW

- **E-waste Collection: Users deposit devices at smart bins.**
- **Sorting & Recycling: AI-powered systems sort materials for recycling.**
- **Refurbishing: Functional devices are repaired and resold.**
- **Material Recovery: Extract precious metals using eco-friendly methods.**
- **Data Reporting: Track progress on waste reduction goals.**

TECHNOLOGIES USED

- AI and Machine Learning for sorting and tracking.
- IoT Sensors for smart waste collection.
- Blockchain for transparent supply chains.
- Recycling Innovations like hydrometallurgical processes.

MEASURING IMPACT

- **Reduction of e-waste by 30% within 5 years.**
- **Recovery of valuable materials for reuse.**
- **Creation of green jobs in the recycling and refurbishment sectors.**
- **Enhanced consumer awareness and participation.**

CONCLUSION

- Addressing the e-waste crisis requires innovative and sustainable solutions.
- Solutions like smart collection systems, AI sorting, and digital marketplaces contribute to achieving UN SDG 12.
- Collaboration among governments, companies, and consumers is essential.

THANK YOU VERY MUCH!