

# Innovate2PREVENT

Implemented by Yunus Environment  
Hub on behalf of the PREVENT  
Waste Alliance



# Innovate2PREVENT

- Aims to support **innovative and inclusive business solutions** towards a **circular economy**
- Implemented by **Yunus Environment Hub (YEH)**
- **15 selected solutions** each contributing to one of the three tracks below

## Tracks

**Track 1:** Reuse, refurbishment or repair (RRR) of electrical and electronic equipment (EEE)

**Track 2:** Upstream solutions in the plastics value chain.

**Track 3:** Digital, interoperable and data-driven solutions for the circular economy, focussing on plastics and e-waste



# Participants and Country of registration





# Participants

## Track 1

Reuse, refurbishment or repair (RRR) of  
electrical and electronic equipment  
(EEE)



# Narisrec: Binewaste

Location Angola

**Business overview** Narisrec is a pioneering organization in the field of electronic waste management in Angola, committed to addressing the growing environmental challenge posed by discarded electronic devices. Their mission is to promote sustainable practices by offering comprehensive e-waste recycling and management solutions that minimize environmental impact and maximize resource recovery.

**Innovation overview** Binewaste is a digital platform combined with smart "Ecopoints" strategically placed throughout the country. This platform allows users to locate these bins easily, schedule pickups for their e-waste, and even buy or sell refurbished electronics. Narisrec's approach not only promotes responsible e-waste disposal but also fosters a circular economy by giving new life to used electronics.

Website <https://narisrec.co.ao/>



# Revnics Energy: Lion Box

Location

Nigeria

Business  
overview

Revnics Energy is a recycling company dedicated to transforming electronic waste into valuable resources, with a focus on creating sustainable energy solutions. Their mission is to upcycle, repair, and recycle electronic waste, to reduce the environmental impact of e-waste and to provide affordable, reliable electricity to underserved communities. At the core of their operations is the upcycling and repair of discarded electronic devices. We meticulously refurbish and repurpose these electronics, transforming them into functional products. This process not only extends the lifecycle of electronic items but also minimizes the volume of e-waste that would otherwise end up in landfills. One of their flagship initiatives involves upcycling e-waste to produce solar lamps and solar power generators

Innovation  
overview

Lion Box is an affordable and portable solar energy backup storage system developed from E-waste recovered and refurbished materials for households and small businesses, providing electricity to underserved communities in rural and urban areas. This flagship initiative addresses e-waste challenges and energy poverty in Nigeria.

Website

<https://revnics.com.ng/>



# Wastezon: Wastezon 2.0 app

Location **Rwanda**

Business  
overview

Wastezon addresses device affordability and accessibility in Africa, where over 300 million people face digital inclusion challenges. In Sub-Saharan Africa, affording a smartphone requires saving six months' salary, with unreliable supply chains further increasing costs. Wastezon combats these issues by refurbishing e-waste into quality, low-cost devices through AI and Materials Science. Using the Wastezon app and web platforms, they trace and acquire obsolete devices, which their mineralogical laser scanner refurbishes into affordable smartphones and laptops. For devices that cannot be refurbished, they extract secondary raw materials like copper and aluminium for resale to manufacturers. Since 2021, Wastezon has transformed over 510 tons of e-waste into devices for 15,000 Rwandan households, benefiting 75,200 individuals, 72% of whom are women. Their community agents help facilitate device acquisition and digital literacy, with 9,800 households reporting a 50% increase in income due to these devices.

Innovation  
overview

Wastezon 2.0 app and web platform enable the tracking, tracing and acquiring of obsolete and second-hand electronic devices from entities and high-income households. Utilizing their in-house mineralogical laser scanner, we recover and refurbish such devices into low-cost, functioning, and quality-vetted devices (mostly smartphones and laptops) that they provide to low-income households who otherwise can't afford brand-new devices.

Website <https://wastezon.com/>





# AppCyclers: AYAT



## Location Business overview

Ghana

AppCyclers is a social enterprise founded in 2019 in Tamale, Northern Ghana. We are an innovative e-waste management startup that leverages web technology, data analysis, and community sensitization programs to ensure the safe disposal and management of e-waste. Their core business as a social enterprise focuses on: Organizing e-waste advocacy programs and training projects to educate youth and informal local recyclers on best practices in managing e-waste. Offering collection services, manual dismantling, repairs, and ethical recovery of precious materials from e-waste. They operate their processing workshop where we collect, store, and process materials to recover various components. Championing digitalization by offering a digital platform that enables businesses and individuals to schedule pickups of their e-waste at their convenience. They also provide an online marketplace connecting local recyclers and off-takers to trade recyclables. Their vision is to create a sustainable and environmentally responsible society through innovative e-waste management solutions.

## Innovation overview

Ayat is a web-based marketplace powered by AI, designed to digitalize the collection, sourcing, and purchasing of e-waste across Africa. The platform connects e-waste generators, local recyclers, and off-takers, streamlining the entire lifecycle of e-waste and recyclable materials. By leveraging advanced technology, Ayat enhances the efficiency, transparency, and traceability of e-waste management. Users can easily schedule pickups, track the status of their e-waste, and access a real-time marketplace for trading e-waste materials. The platform promotes responsible disposal and recycling practices while making critical data available for stakeholders. Ayat aims to be a Pan-African digital solution, fostering trade, ensuring compliance with environmental standards, and contributing to sustainability across the continent.

## Website

[www.appcyclers.com](http://www.appcyclers.com)





# Inter Ethiopia: Circular Solar Kiosk

## Location

Ethiopia

## Business overview

Inter Ethiopia Solutions PLC specializes in the collection, refurbishment, and recycling of e-waste, particularly focusing on solar home systems (SHS) and lithium-ion batteries. They partner with international manufacturers and local distributors to provide warranty services and manage e-waste. Their operations extend to refurbishing SHS to sell at reduced prices, helping reduce waste and supporting energy access in underserved communities. They are committed to the principles of the circular economy, ensuring that our business activities contribute to sustainable development in Ethiopia.

## Innovation overview

The company is seeking support to launch an innovative Circular Solar Kiosk initiative in refugee camps, designed as a dual-purpose centre. At the Kiosk, they focus on developing a modular refurbishment system for lithium-ion batteries sourced from used solar home systems. This system allows for the batteries' extended use in various applications, significantly reducing waste and promoting resource efficiency. By integrating a standardized refurbishment process, we aim to enhance the lifecycle of these batteries, making renewable energy more accessible and affordable. This kiosk also will serve both as a collection point for electronic waste (e-waste) and as a training hub where refugees can gain skills to become technicians specializing in refurbishing solar products, ultimately helping to address the challenge of solar e-waste and creating jobs among the refugee communities in Ethiopia.

## Website

[www.interethiopia.com](http://www.interethiopia.com)



# Participants

## Track 2

Upstream solutions in the plastics  
value chain



# Mount Kenya University : Ecotrace



Location Kenya

Business overview

Mount Kenya University envisions being a global hub of excellence in education, research and innovation. The institute aims to provide world-class education, research and innovation for global transformation and sustainable development. As part of their endeavours at the innovation and incubation centre, a team from the University explores several refill solutions in Kenya and South Africa. Their innovation has been adopted by Unilever, as a solution to reduce single-use plastics. The Eco Trace was the overall Winner - Global IX challenge: Re-use, Re-fill, Re-imagine – Innovative solutions for online consumer products within South Africa 2022-2023.

Innovation overview

Eco Trace reimagines the future of retail by delivering refills of everyday consumer products to your door without the use of plastic packaging. Through their mobile and stationary refill stations, customers refill everyday necessities such as soap, shampoo, detergent, cooking oil, and more at a reduced cost. They achieve a win-win solution for their low-income customers, retail partners, FMCG companies, and the environment through their solution.

The Refilling systems are Internet of Things-enabled machine that enables shopkeepers to accurately dispense as little as a few shillings of powder or liquid detergents into reusable containers and sell it at 20% less, making it accessible to low-income earners while increasing sales and profit margins for store owners and reducing single-use plastic.



Website <https://www.ecotrace.ke/>



# Green Joy: Grass Straws



Location Vietnam

**Business overview** Green Joy is a venture that utilizes grass-based technology to produce sustainable and circular products. Our aim is to offer eco-friendly alternatives for various applications, addressing single-use plastic waste and pollution, improving the livelihoods of disadvantaged people, and supporting eco-conscious consumption and environmental conservation.

**Innovation overview** Green Joy's solution to the plastic waste problem is the production of compostable straws and utensils made from natural grass that is native to the Mekong Delta region. These grass straws are not only safe, but also 100% organic, scalable, rapidly generated, and sustainable with minimal energy and resources utilized during production. The utensils are ideal for use in F&B, home, and kitchen settings. Furthermore, any remaining grass waste is converted into biomass using advanced technology to create grass pellets, which is currently under development.

**Website** <https://greenjoystraw.com/en/grass-straws>





# Why Waste Wednesdays Foundation: Project Vikalp



Location India

**Business overview** Why Waste Wednesdays Foundation is a non-profit organization established under Section 8 of the Companies Act 2013 on October 5, 2021. Their mission is to drive positive environmental change by promoting sustainable waste management practices, reducing single-use plastics, and fostering a culture of mindful consumption.

**Innovation overview** Project Vikalp aims to reduce single-use plastic pollution through an innovative "Borrow a Bag" program. In collaboration with the Municipal Corporation of Delhi, Vikalp has set up nearly 1000 stalls in markets and public spaces where consumers can borrow reusable cloth bags for a refundable deposit. Each bag, made from recycled and surplus fabric, carries a QR code linking users to a network of return points, ensuring convenience and widespread participation.

**Website** <https://www.whywastewednesdays.com/vikalp>



# Social Lab Environmental Solutions

## Private Limited : 3R solution



Location India

Business Overview

Social Lab is a data-driven research and implementation organization offering waste management solutions to Urban Local Bodies (ULBs) and private businesses. Their mission is to enable cities and businesses to transition to circular waste management. They create value for ULBs through waste assessment, Information, Education & Communication (IEC) campaign design & implementation, route planning & optimization etc. To date, they have worked on city-wide projects with 22 ULBs from the states of Maharashtra and Gujarat. Their work at Baramati, Lonavala received a national award in Swachh Survekshan 2022. The output of these projects has been adopted by the Government of Maharashtra. Their work on Plastic waste management under EPR for organizations has a presence in 80+ cities across eight states of India and has resulted in diverting over 78,000 tonnes of plastic from landfills to scientific processing at 35 partner processing facilities. Their uniqueness lies in integrating informal scrap aggregators and waste-pickers into the EPR supply chain. In pursuit of their mission, they have now started 3R, a packaging reuse solution that costs less than making new packaging, prevents water contamination and ensures legal compliance. Social Lab delivers its services on the back of a team that comprises professionals from engineering, management, IT, environment, and mass communication streams. They have offices in Pune and Aurangabad city of Maharashtra.

Innovation overview

3R® is an end-to-end packaging reuse solution for urban local bodies and private businesses. It is structured around Recovery of post-use packaging, recondition, and supply for Reuse to the companies.

3R® works with paint and motor lubricant companies to map product distribution and establish take-back mechanisms for used containers. These containers are thoroughly cleaned, and quality tested using a patented process. Containers are provided with the unique digital ID that captures the lifecycle and then, containers are supplied to companies for reuse.

Website

<https://3rsolutions.in/>



# Salin PH: Salin Swap

Location Philippines

**Business Overview** Salin PH is committed to reducing packaging waste generated by Filipino households and communities through innovative reuse, refill, and circular economy solutions. Their mission is to make sustainable living accessible and convenient for everyone in the Philippines, contributing to a sustainable planet. The 'Salin Swap' initiative is central to their mission. It focuses on 1) enabling brands and refilling stores to offer reusable container services without the hassle of maintaining them, and 2) providing consumers their grocery essentials in reusable containers. This initiative aims to eliminate single-use plastics by offering businesses and consumers a waste-free alternative that is both affordable and accessible.

**Innovation overview** Salin Swap focuses on enabling brands and refilling stores to offer reusable container services without the hassle of maintaining them and providing consumers with their grocery essentials in reusable containers. This initiative aims to eliminate single-use plastics by offering businesses and consumers a waste-free alternative that is both affordable and accessible. Salin Swap aims to be the first end-to-end reuse-as-a-service model, integrating smart technology for efficient container tracking and management.

**Website** <https://salin.ph/>



# iRefill

Location

India

Business  
Overview

iRefill is an early-stage company that specialises in designing and developing innovative Smart Refill dispensers, which aim to reduce the use of single-use plastics by providing a sustainable, reusable solution. At iRefill, we focus on developing product dispensing systems. iRefill leverages IoT & AI/ML technologies to build advanced refilling solutions that promote reuse & refill models, directly addressing the issue of plastic waste. They design, develop, and assist their partners with seamless implementation. iRefill system includes an Internet of Things (IoT)-connected vending machines to dispense products such as edible oil, dairy, personal, and home care products. They aim to build and provide these vending machines to retailers/wholesalers/organic stores and brands at an economical cost.

Innovation  
overview

iRefill was initiated to tackle the plastic waste issue through reuse and refill models. These models enable us to address plastic waste at its source, mitigating numerous associated problems. Plastic negatively impacts the environment, biodiversity, marine life, and human health. iRefill strives to create a viable alternative that benefits humans and contributes to the entire ecosystem's well-being. It was discovered that approximately 50 per cent of plastic packaging is discarded, and more than 8 million tons of plastic are dumped into our oceans every year. While there is a global movement to reduce plastic waste, these efforts often overlook middle and lower-income communities. To tackle this problem iRefill focuses on developing cost-effective IoT-connected vending machines designed to dispense FMCG products, such as edible oils and personal and home care items, allowing customers to buy products without creating packaging waste.

Website

<https://www.irefill.in/>

# iRefill





# DercolBags Packaging: Spex



Location

Ghana

Sector(s)

Sustainable Packaging

Business  
Overview

DercolBags is a sustainable Packaging Firm, empowers women entrepreneurs to replace Single-Use plastic packages with eco-friendly alternatives for a cleaner environment. They offer a range of alternative packaging solutions and products tailored for SME businesses in various sectors such as the hospitality and food industry, wholesale and retail, manufacturing, and e-commerce, as well as women-led distributors for resale, connecting businesses to Sustainable packaging. Their solutions focus solely on eco-friendly alternatives, circular economy, zero-waste, and leveraging technology to deliver efficient and cost-saving services for customers. Started operations in 2018, as a sole proprietorship and later registered as a Limited Liability in 2021 and has since served over 460 businesses in Ghana and West Africa and reached over 5 million people with products and services in several communities.

Innovation  
overview

Smartpack Exchange (Spex) is an online food order and delivery platform by DercolBags Packaging Limited Company, a sustainable packaging firm empowering women entrepreneurs to replace single-use plastic packages with eco-friendly alternatives for a cleaner environment.

Through the Spex platform, reusable packages are distributed to participating restaurants and food vendors. Participating offices or users receive their food in Smartpacks.

Website

[www.dercolbags.com](http://www.dercolbags.com); [www.spexafrica.app](http://www.spexafrica.app)



# Participants Track 3

Digital, interoperable and data-driven solutions



# GIVO Ltd



## Location

Nigerian

## Business Overview

GIVO (Garbage In Value Out) is a climate tech start-up, providing tech-enabled solutions to enable low-carbon waste management solutions in underserved communities. They Leverage frontier technologies such as blockchain, IoT and Computer Vision, to aggregate and process recyclables from communities and businesses, transforming them into industrial goods. Their flagship offerings include the GIVO Centres and the GIVO Technology Platform (GTP). The GIVO Centres are solar-powered hubs where we aggregate, sort, and process plastic recyclables. These centres operate off-grid, utilizing renewable energy to minimize carbon emissions and ensure sustainable operations. Each centre processes up to 90 MT annually, avoiding over 2000 MT of CO2 and employing up to 15 full-time locals and typically operates in a 2-5 km radius. The GIVO Technology Platform (GTP) leverages cutting-edge IoT and blockchain technologies to provide real-time waste tracking and transparent data collection to ensure traceability from waste collection to processing, enhancing accountability and efficiency in waste management practices. The integration of advanced analytics and AI within the GTP allows for continuous monitoring and optimization of waste management processes, contributing to improved operational performance and reduced greenhouse gas emissions. The GIVO Technology Platform (GTP) leverages cutting-edge IoT and blockchain technologies to provide real-time waste tracking and transparent data collection to ensure traceability from waste collection to processing, enhancing accountability and efficiency in waste management practices. The integration of advanced analytics and AI within the GTP allows for continuous monitoring and optimization of waste management processes, contributing to improved operational performance and reduced greenhouse gas emissions. Through their operations, they reduce CO2 emissions and promote environmental sustainability while empowering communities through job creation and skill development, fostering a circular economy and a cleaner future. GIVO's solution is designed to benefit underserved communities and ecosystems vulnerable to the impacts of climate change.

## Innovation overview

## Website

[www.givo.africa](http://www.givo.africa)





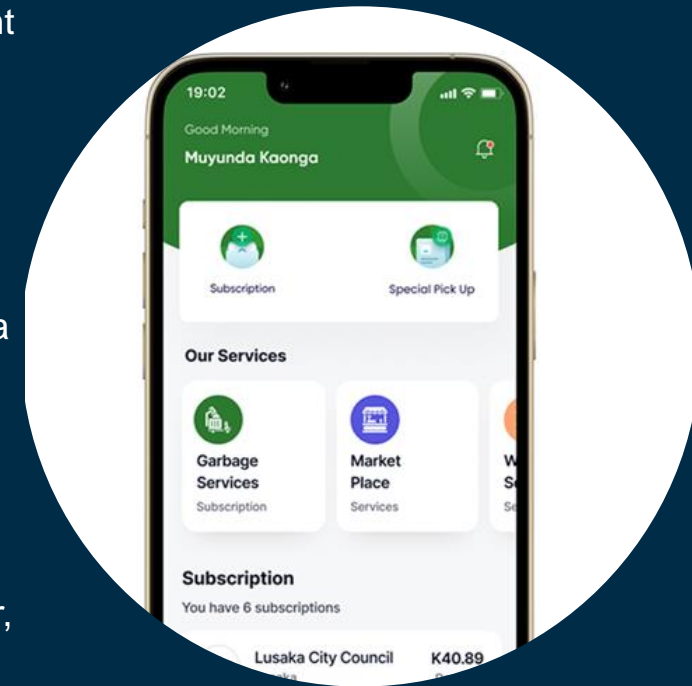
# Ebusaka Green Technology Limited

Location Zambia

**Business Overview** Ebusaka is a pioneering digital waste management platform revolutionizing the waste collection and recycling processes in Zambia. By connecting various stakeholders in the waste management cycle, Ebusaka ensures a streamlined, efficient, and transparent system. Unlike traditional manual methods, their platform offers real-time feedback, detailed reporting on the collection process, online payments, and effective revenue management. Their solution provides several critical benefits to the waste management industry, especially in African cities like Lusaka.

**Innovation overview** Ebusaka is a digital waste management platform designed to revolutionize waste collection and recycling processes in urban areas like Lusaka. By integrating advanced digital solutions, Ebusaka streamlines waste collection, enhances transparency, and improves operational efficiency. Their Ebusaka app provides real-time tracking and data analytics, offering valuable insights into waste generation patterns that optimize collection routes and resource allocation. Additionally, Ebusaka facilitates online payments and revenue management, ensuring financial transparency for service providers. The platform empowers residents to request services and provide feedback, promoting community engagement and accountability. Ultimately, Ebusaka contributes to a circular economy by reducing pollution, conserving resources, and creating cleaner, healthier urban environments. The platform currently has 1700 and works with 5 collectors that can collect from 20000 households.

**Website** <https://web.ebusaka.com/>





# Centre for Competitive Skills: qarkonomi.al



Location

Albania

Business  
Overview

The Centre for Competitive Skills (CCS) is a non-profit organization founded in 2016, dedicated to advancing human capital development in a lifelong learning context while promoting sustainable education and training in Albania. Their mission is to enhance the competitive skills of young people and adults to meet individual, societal, and labor market needs. At CCS, they firmly believe that fostering a circular economy and green transition is essential for sustainable development. This philosophy is central to their mission, guiding our initiatives to promote sustainable economic growth and reduce environmental impact. They support projects in sustainable tourism, agriculture, food processing, vocational education and training, and compulsory education. These initiatives aim to create employment opportunities while minimizing environmental impact. Over the past three years, CCS has conducted over 200 training sessions, benefiting more than 4,000 participants. CCS is also dedicated to assisting vulnerable groups, including returnees and individuals from disadvantaged backgrounds, by providing the skills needed to participate in the green economy. CCS excels in fostering excellent cooperation with state institutions, including Ministry of Tourism and Environment (MTE) and Ministry of Economy, Culture and Innovation (MECI), vocational education and training institutions, compulsory education institutions, and businesses.

Innovation  
overview

qarkonomi.al is a circular economy platform is presented in Albanian and serves as a dynamic hub for companies, academic institutions, and communities to share resources, expertise, and best practices that advance circular economy principles. Created in 2020 as part of an EU project this portal informs and connects companies, academic institutions, and communities to exchange resources, expertise, and best practices. They aim to use this platform to inform and support different initiatives and collaborate with MTE, MECI, government agencies and policymakers to improve the legal and institutional framework. Our focus includes promoting circular businesses, particularly those led by women or based in rural areas.

Website

<https://qarkonomi.al>



# Meet the Yunus Environment Hub Innovate2PREVENT Team



**Bramwel Omondi**

Innovate2PREVENT Program  
Manager



**Leonard Mwasi**

Circular Economy &  
Innovation Expert



**Julie Chrystler**

Circular Economy & Social  
Impact Expert

# Meet the PREVENT Innovate2PREVENT Team



Anika Schumann  
Coordination  
Innovate2PREVENT &  
Digitalisation Working Group



Jana Mandel  
Coordination E-Waste  
Working Group



Alexander Frenzel  
Co-coordination E-Waste  
Working Group