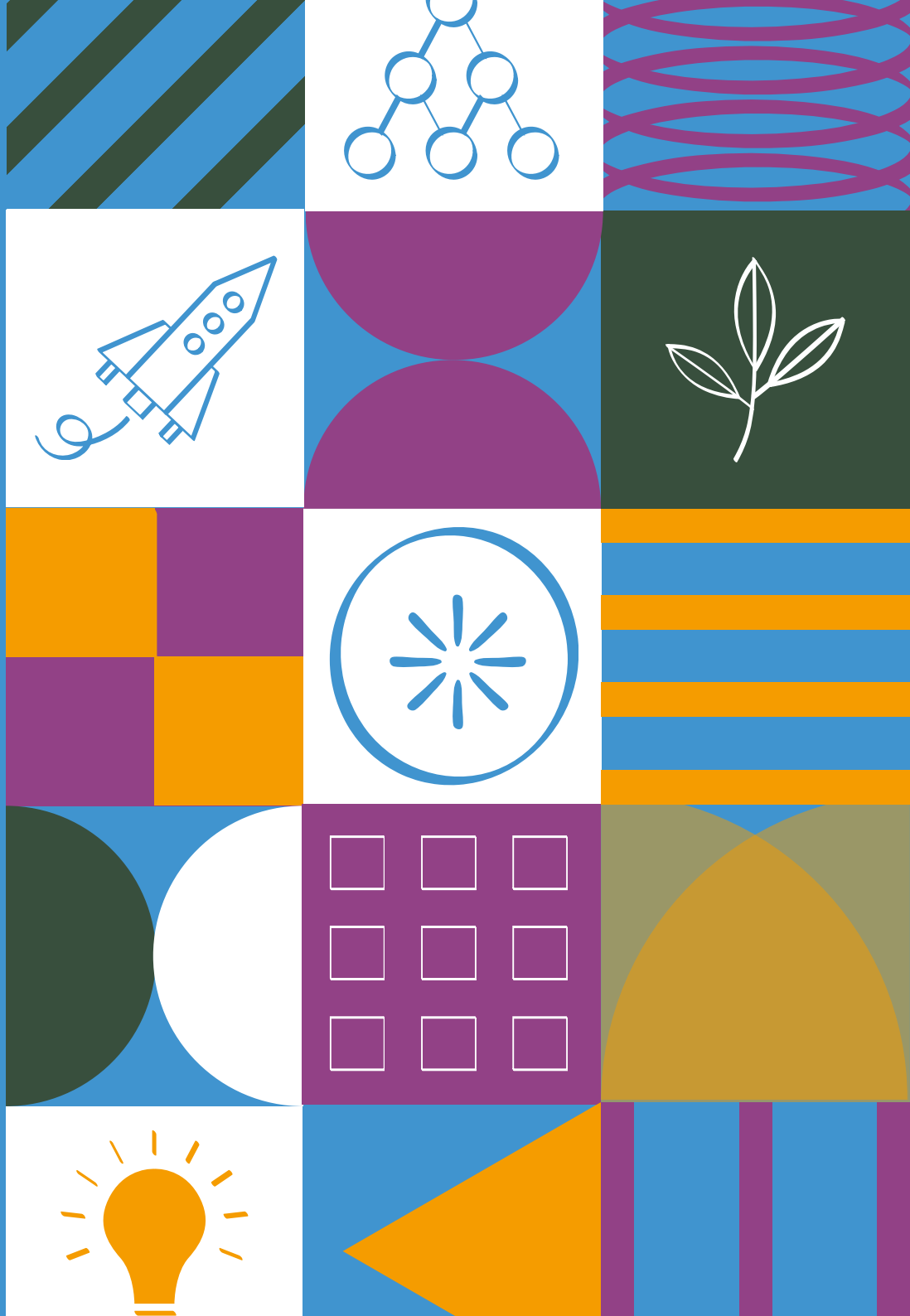
UNLEASH Philippines

The first stage of LIF Launchpad

SOLUTIONS CATALOGUE

UNLEASH
PHILIPPINES



150 Talents

14 Facilitators

3 Thematic Tracks

32 Solutions

In September 2025, 150 Filipino changemakers gathered in Manila for UNLEASH Philippines, the first Innovation Lab bringing together innovators from all over the country and the opening stage of LIF Launchpad, a program by the Royal Academy of Engineering in partnership with UNLEASH.

Over the course of a week, participants co-created solutions addressing some of the Philippines' most pressing challenges, from health inequities and agricultural vulnerability to urban resilience. Guided by trained Facilitators, Talents followed the UNLEASH innovation process: framing real-world problems, identifying root causes, ideating solutions, and building low-fidelity prototypes.

The result is a collection of powerful ideas that demonstrate the creativity, passion, and commitment of Filipino innovators. Each concept reflects **a deep understanding of local contexts and a shared vision for a more inclusive, sustainable future**.

This catalogue highlights every team's contribution to the Innovation Lab, solutions rooted in innovation and engineering, and driven by empathy and collaboration.

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Health Equity and Biomedical Innovation

Resilient Agriculture and Food Systems

Sustainable Cities and Communities Through Engineering Innovation

Alalay-Ani

Soybean farmers in the Philippines, many of them over 40 years old, face steep labor demands during harvest season and lack access to affordable machinery. Alalay-Ani introduces a practical, all-in-one mechanical reaper and binder designed specifically for soybean production.

The solution efficiently bundles stalks and and reaps soybean, significantly reducing harvest time, labor costs, and post-harvest losses. Integrating this locally adaptable technology into existing farming practices, Alalay-Ani boosts productivity, supports aging farmers, and makes soybean farming more profitable and sustainable.

MOST INNOVATIVE

Project SAFE (Safe Alternatives for Flood Evasion)

Flooding frequently disrupts the lives and livelihoods of nurses and healthcare workers in urban areas. Project SAFE is a mobile navigation app that uses real-time data and intelligent routing to help essential workers travel safely during floods. Uniquely combining data around weather and traffic, the platform identifies accessible, flood-free routes to hospitals and clinics.

Beyond safety, it offers a communication hub for updates and alerts among healthcare staff, ensuring continuity of care during crises and protecting both frontline workers and the communities they serve.

MOST IMPACT POTENTIAL

CropSure

In the highlands of Bukidnon, wholesalers often lose large quantities of perishable produce during long trips to market due to heat, pressure, and poor ventilation.

CropSure is a retrofitting system that converts standard bongo trucks into temperature-controlled transport units using a lightweight stainless-steel frame, insulated thermal covers, and battery-powered ventilation fans. That way, it protects crops from damage and extends shelf life by up to 30%.

CropSure gives farmers and traders a practical way to reduce food waste, cut losses, and maintain quality while being affordable and adaptable.

PEOPLE'S CHOICE

ArthSense

In many rural communities, healthcare workers lack accessible tools to detect early signs of cardiovascular disease among working-age adults, leaving families vulnerable to sudden, life-threatening health emergencies.

ArthSense is a wearable sleeve that assesses fat deposit buildup, providing a quick, non-invasive way to identify early cardiovascular risks. Enabling frontline workers to conduct on-the-spot assessments, the device supports earlier intervention, strenghtens local health systems, and helps protect livelihoods by preventing conditions before they escalate.

FINALIST

Dahum sa Tubig

In Negros Oriental's disaster-prone mountain barangays, clean water becomes scarce after typhoons and landslides. Dahum sa Tubig ("Wisdom in Water") equips families to secure potable water within 48 hours of a calamity. The initiative trains households to build low-cost filtration and disinfection systems using local organic materials paired with solar disinfection techniques adapted for low-light environments.

Dahum sa Tubig equips communities for disaster response, ensuring that even when relief is delayed, families can independently access safe drinking water.

FINALIST

BLIP

In many rural health units, essential supplies for procedures like blood typing are wasted due to bulk expiration and inefficient resource use. BLIP introduces an individual-based testing kit that reduces waste and optimizes inventory. Instead of discarding full sets of expired materials, health centers can now rely on modular, single-use kits tailored to actual demand. This approach cuts costs, ensures sustainability, and improves service delivery, allowing healthcare facilities to operate more efficiently while maintaining reliable diagnostic capacity for their communities.

FINALIST

PACKIT!

Small online sellers frequently overuse or misjudge packaging materials, leading to waste and shipping damages. PACKIT! is a digital solution that optimizes packaging by combining a mobile app and smart sensors.

The app analyzes an item's size and material to calculate the ideal packaging volume, resulting in the right amount of packing being used. This ensures safe deliveries with minimal waste, helping small businesses save resources and promote sustainable e-commerce practices.

FINALIST

CoCo Dry

Smallholder coconut farmers often struggle to meet quality standards for copra, as traditional sun-drying methods produce inconsistent, moisture-heavy output. CoCo Dry offers a cooperative-driven solution: a community-based drying facility that reduces moisture content to 5–6% within 24–48 hours, producing export-grade copra.

Managed collectively at the barangay level, the dryer allows farmers to share ownership, lower costs, and bypass multiple traders, increasing farmgate prices by up to 40%. By equipping cooperatives and improving product quality, CoCo Dry strengthens rural livelihoods and positions coconut farmers to compete in higher-value markets.

Aqualet

Older adults often struggle to maintain proper hydration, especially when medications and reduced thirst perception make monitoring difficult. Aqualet is a bioimpedance wristband that measures the body's water levels and alerts users when hydration drops below safe thresholds. Lightweight and comfortable, it provides visual or vibration cues to prompt fluid intake, reducing reliance on caregivers. Built from locally available components, Aqualet offers an affordable and scalable way to prevent dehydration among seniors, improving health outcomes and independence for aging populations.

Siargao Basura to Alternative Energy Initiative (SiaBAE Initiative)

Siargao's pristine coastline faces growing pollution from plastic waste and limited energy access, especially during typhoons.

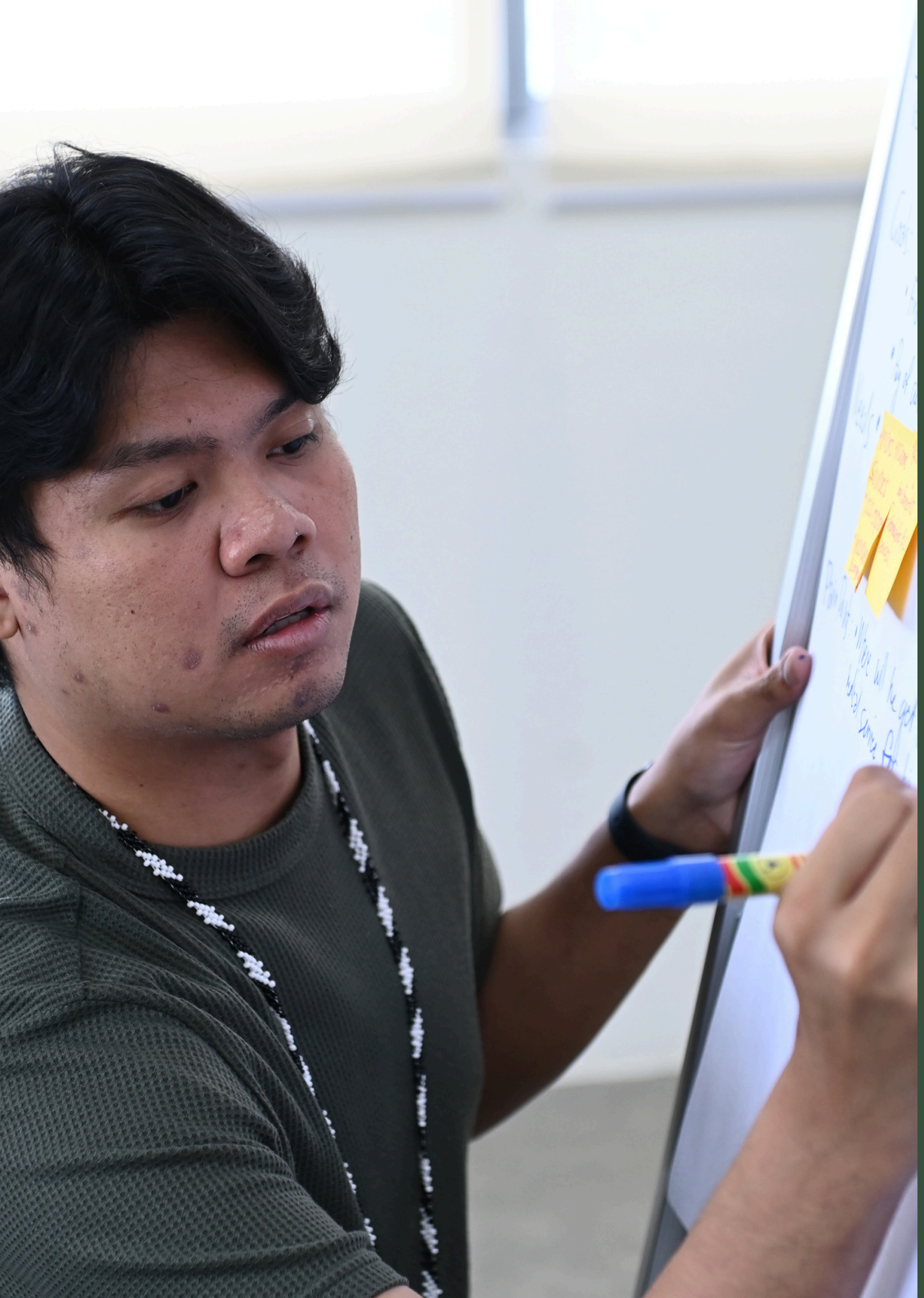
The SiaBAE Initiative (Siargao Basura to Alternative Energy) introduces a hybrid solar-powered incinerator system that converts plastic waste into energy. A typical Filipino household's monthly plastic output can generate up to 200 kWh, enough to power itself sustainably. Each unit is made to minimize emissions while producing reusable eco-bricks and renewable power.

SiaBAE supports island communities to reduce pollution, strengthen energy resilience, and create a cleaner, circular economy.

Agridiz Solar Dryer

Rice farmers in Quirino often rely on roadside drying, which exposes grains to dust, pests, and uneven moisture, leading to poor quality and losses. Agridiz Solar Dryer is a portable, solar-powered drying system engineered for small-scale producers.

It speeds up drying time while keeping contaminants out. Easy to assemble, the Agridiz Solar Dryer allows farmers to process rice faster and more safely, improving quality and increasing income across rural communities.



HealthMate

For Filipinos in rural areas, reaching medical support often means long travel times and delayed care. HealthMate bridges this gap by using the country's existing SMS network to connect users directly with their nearest healthcare units. Through simple text-based requests, patients can access emergency assistance or consultations in real time, even without smartphones or stable internet.

Combining low-cost technology with the reliability of mobile connectivity, HealthMate ensures that quality healthcare is only one message away, bringing faster and more accurate support to those who need it most.

BASURA App

Urban households in Manila generate large amounts of waste but struggle with segregation and compliance due to limited time, space, and incentives. BASURA App transforms waste management into a structured, rewarding household practice. Families receive digital guidance for segregation and collection, and verify recycling compliance through the app in exchange for points. Points can then be redeemed for essential goods such as rice or cooking oil. Blending accountability, education, and gamified rewards, BASURA App strengthens community engagement and ensures waste management laws are implemented effectively one household at a time.

CacaoAni

In the mountainous communities of Davao de Oro, cacao farmers face constant uncertainty during harvest season. Poor infrastructure, weak connectivity, and limited access to reliable weather forecasts force them to depend on guesswork, and a single unexpected rain can ruin their crop and wipe out a year's income.

CacaoAni translates weather forecasts into simple, visual alerts for cooperative committees. These committees can then communicate these alerts to their members to help them decide if it will be safe to harvest.

Combining community networks with localized forecasting, every farmer gets the right information at the right time, protecting harvests, reducing losses, and strengthening cooperative resilience.

HealthTeen Heroes

Across the Philippines, open conversations about sexuality remain taboo, leaving many young people aged 10 to 18 without access to accurate, age-appropriate information about their reproductive health. HealthTeen Heroes tackles this challenge through an innovative and culturally sensitive approach: a coming-of-age game hosted on one of the country's most popular gaming platforms.

Introduced through booths at concert grounds, where youth naturally gather, the game engages players through fun missions and levels tailored to different age groups, helping them learn safely and confidently.

By meeting young Filipinos where they are, HealthTeen Heroes supports them to understand their bodies, make informed choices, and contribute to lowering rates of HIV and other health risks.

K-5 (K-LIMA)

Local planners play a crucial role in preparing communities for climate risks, yet many lack access to reliable data and technical tools, and need to navigate fragmented and complex processes.

K-5 (K-LIMA) supports evidence-based climate adaptation planning through an interactive data visualization and decision-support platform by integrating key climate data, which ultimately supports local government units to co-produce risk-informed Local Climate Change Adaptation Plans (LCCAPs).

Balik Agri

Younger generations in farming families, particularly in the highlands of Benguet, often view agriculture as an unsustainable livelihood. Balik Agri seeks to change that by rebranding farming as a viable and fulfilling career path for second-generation farmers.

The program blends traditional agricultural wisdom with entrepreneurship, digital literacy, and modern agribusiness training. It works with the RISE framework (Readiness Inventory for Successful Entrepreneurship) and key partners in the public and private sector to provide certification, mentorship, and market access. Creating visible success stories and building peer networks, Balik Agri encourages youth to return to agriculture, revitalizing rural economies and ensuring food security for the future.

VITCheck

In the mountainous province of Antique, limited access to functional medical equipment hampers the ability of healthcare workers to deliver even basic health services.

VITCheck is a low-cost, modular medical kiosk that provides a quick and reliable health assessment in one station. Designed for ease of assembly and durability, it minimizes maintenance needs while maximizing accuracy.

By extending diagnostic reach into remote areas, VITCheck strengthens rural healthcare systems and helps communities monitor their wellbeing with confidence.

KayaKonek

Local organizations and small businesses often struggle to find skilled administrative workers who meet their needs without costly recruitment or long training periods.

KayaKonek creates a hyperlocal, skills-based hiring ecosystem that replaces “degree culture” with verified competence. Users earn digital proof of skills relevant to clerical and administrative roles, and local employers can then search, connect, and hire directly through the platform.

Centering skills over diplomas, KayaKonek opens new pathways for inclusive employment, upskilling, and community-driven workforce development.

BANTAY BAHA: Realtime Bridge Monitoring System

Flash floods frequently paralyze transport in Iligan City, stranding commuters and disrupting daily life. BANTAY BAHA introduces a real-time bridge monitoring system to track rising water levels on the Tubod Bridge.

When danger thresholds are reached, local commuters receive visible and digital alerts. This system ensures safer travel routes, helps commuters make informed decisions, and supports local authorities in managing flood risks efficiently.

Aqua Purification Station (APS)

Shrimp farmers in Maniwaya, Marinduque often rely on traditional methods and inconsistent water sources, resulting in poor yields and limited income. Aqua Purification Station (APS) addresses this by introducing a locally designed water purification system that improves water quality for shrimp cultivation.

The system uses materials readily available on the island. The APS model helps farmers maintain optimal water conditions, leading to healthier shrimp, higher yields, and a more systematic, sustainable aquaculture practice that can be replicated across coastal communities.

Abbin’s Adventures

Indigenous cultures across the Philippines face the growing threat of losing oral traditions as younger generations drift away from ancestral knowledge. Abbin’s Adventures bridges this intergenerational gap through storytelling that celebrates heritage in a form children can easily relate to. The project begins by documenting the narratives of Indigenous elders and translating them into child-friendly stories led by Abbin the Eagle, a curious traveler who carries wisdom across communities. Starting as a low-cost zine, the concept can expand into illustrated books or short animations.

PawLink

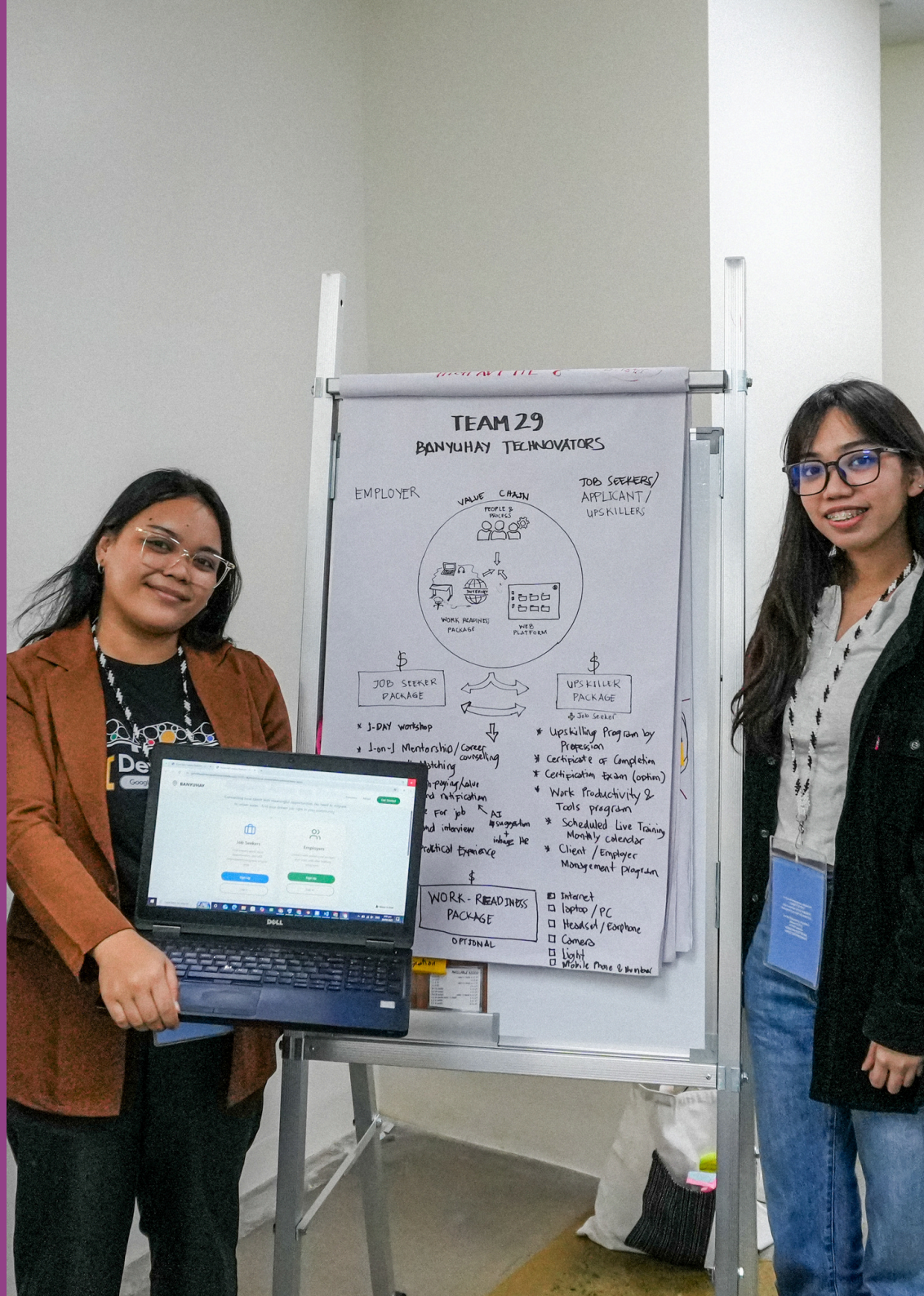
Stray animals are common in many Filipino communities, yet rescue and adoption efforts are often fragmented. PawLink provides a centralized, community-driven platform for reporting, rescuing, and adopting stray animals.

The platform makes it easy for users to report sightings, follow updates on rescues, and explore adoption opportunities. Each rescued animal is logged in a public database for transparency and tracking. Volunteers and partner organizations can coordinate operations through the platform, creating cleaner neighborhoods, reducing stray populations, and improving animal welfare in partnership with Local Government Units and NGOs.

Banyuhay

In rural areas like Southern Leyte, many workers migrate to cities due to limited job opportunities and poor connectivity. Banyuhay, which means “Metamorphosis”, is a platform that connects rural talent to high-paying remote jobs. It offers digital upskilling, job matching, and reliable connectivity support, enabling professionals to thrive without leaving their hometowns.

Keeping families together and driving local income, Banyuhay strengthens rural economies, reduces migration pressures, and fosters inclusive, tech-enabled growth.



BestBefore

Food waste and hunger coexist in Metro Manila, where small groceries lose profit from unsold goods while many households struggle with rising costs. BestBefore offers a smart, community-based solution: a mobile app that connects local groceries with budget-conscious shoppers to sell near-expiry food items at discounted prices.

By promoting smart purchasing, transparency on product freshness, and partnerships with local stores, BestBefore creates shared value. Beyond savings, users can earn rewards that translate into discounts or meal donations, while businesses recover losses and reduce waste.

Botik-Kahon

Elderly Filipinos living alone in remote communities often face barriers in managing their medication safely. Botik-Kahon is a medicine dispensing device designed for reliability in places with unstable electricity supply, ensuring uninterrupted function even during blackouts.

Designed for simplicity and reliability, Botik-Kahon ensures timely medication adherence while providing peace of mind to caregivers. It's a smart, community-ready solution that equips seniors to live independently and stay healthy.

Dany

Communities in Agusan Marshland face chronic water contamination, leaving families without access to safe drinking sources. Dany offers a compact, biomass-powered water distillation system that converts rainwater, groundwater, or surface water into potable drinking water. It minimizes heat loss and increases energy efficiency, making it ideal for floating and remote communities.

Portable and durable, Dany's design allows easy deployment in flood-affected or off-grid areas, ensuring continued access to clean water in some of the Philippines' most isolated regions.

PollutEd

Teachers in the National Capital Region face challenges in teaching students about air pollution with limited resources and localized data. PollutEd is an interactive learning platform that equips educators and students to explore environmental issues through hands-on, data-driven learning experiences.

By connecting classroom lessons with real-world observations, the platform helps link classroom learning to real-world impact, encouraging awareness, collaboration, and behavioral change toward cleaner environments.

PAMANA

Abaca farmers in Camiguin often face low productivity and inconsistent fiber quality due to outdated cultivation and post-harvest methods. Project PAMANA (Preserving Abaca through Modernization and Nurturing Advancement) with accessible abaca farming tools, updated practices, and localized training. The PAMANA Kit is delivered directly to communities through local demonstrations.

Project PAMANA helps farmers improve fiber consistency, increase yields, and secure higher incomes from this culturally and economically vital crop.

Moove!

Metro Manila's drivers spend long hours sitting in traffic, exposed to heat, stress, and irregular routines that heighten the risk of hypertension. Moove! is an evidence-based mobile app designed to promote heart health on the road. Designed for accessibility while driving, it offers micro-exercises and relaxation techniques that can be performed while seated.

Transforming idle time in traffic into moments for self-care, Moove! supports drivers to reduce blood pressure spikes and maintain healthier lifestyles, turning every journey into an opportunity for wellness.

KicKo. Kick to Connect: Power up learning through playing

Many last-mile schools in the Philippines lack electricity, limiting their ability to integrate technology into learning. KicKo turns play into power with an energy-generating soccer ball designed for children in off-grid communities. As students play, the kinetic energy is stored and later used to power classroom devices such as lights or ICT labs.

Portable, low-cost, and fun, KicKo bridges recreation and renewable energy, enabling children to enjoy playtime while literally powering their education.

Water Quality Monitoring System

During typhoons, water utilities in Bulacan often shut down entire networks to avoid contamination, leaving thousands without water access. Water Quality Monitoring System offers a smarter alternative by enabling utilities to identify contamination risks at the household level.

Guidance from the platform enables partial shutdowns instead of full supply cuts. This minimizes service interruptions, reduces public health risks, and builds trust between residents and water providers.

Scalable and cost-effective, the system can be integrated into existing infrastructure, serving as both a typhoon preparedness tool and a year-round safety measure.

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