Australian Government

CSIRO
Australia's National Science Agency

Indo-Pacific **Plastics Innovation** Network

Indonesia Chapter 2025

The Indo-Pacific **Plastics Innovation** Network (IPPIN)

We're ending plastic waste in the Indo-Pacific by pioneering a new era of sustainable innovation

We believe real change doesn't happen in silos. It requires a connected ecosystem—where entrepreneurs, researchers, industry leaders, policymakers, and funders work together to turn good ideas into lasting solutions. We help bridge the gap between research, innovation, and investment—supporting practical, scalable approaches grounded in local realities and shared across borders.

Supported by the Australian Government and delivered by Australia's national science agency, CSIRO, in partnership with governments in Thailand, Viet Nam, and Indonesia, IPPIN fosters scalable innovations that redefine the plastics lifecycle and advance the circular economy across the Indo-Pacific.

IPPIN is locally led, regionally connected, and built on strong partnerships to drive innovation and impact across the Indo-Pacific.

ippin.org

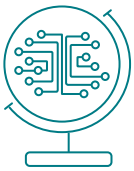
IPPIN's impact: What we've achieved

165 teams supported by IPPIN with 85 teams supported across Indonesia

Through incubators, accelerators, and collaborative projects

4,000+ participants engaged

Including entrepreneurs, researchers, industry leaders, policymakers, and funders



15 countries represented

With deep partnerships in Thailand, Viet Nam, Cambodia, Lao People's Democratic Republic, Indonesia, and across the ASEAN region.

Dozens of cross-border collaborations

Sparked through Demo Days, innovation exchanges, and regional learning forums

Applied research funded through IPPIN Grants

Bridging science and policy for sustainable systems change

Defining the plastic waste problem

Working collaboratively across all cross-sections of society, we've identified key challenge areas where IPPIN's innovation programs can deliver the greatest impact.

These challenge areas are:

1. Sustainable alternatives which outperform existing plastics
2. Improving plastics innovation and capturing value beyond first use, to develop lasting circular solutions
3. Empower decision-making through reliable and accessible information

The solution – There is no single, simple solution to end plastic pollution. It requires a multi-faceted approach involving systemic changes, technological innovations, and behavior change to reduce plastic demand, improve circularity, and prevent leakage into the environment.

Fast facts and trends in a fast-moving industry

The plastics problem

Plastic waste entering aquatic ecosystems is predicted to reach up to 53 million metric tonnes per year by 2030.

Plastics derived from fossil fuels account for 3% of greenhouse gases.

Key take-away

No single action alone can solve our plastic pollution problem. However, research and modelling show that a myriad of solutions and a systems approach is the only way to make tangible change.

Trends in plastics innovation

Advanced/chemical recycling and AI automation

This year emerging standout methods like pyrolysis, depolymerisation, solvent-based purification, AI-optimised sorting, and traceability systems are gaining momentum.

Low tech solutions and community-driven solutions still matter!

Low-tech, community-centred solutions matter because they divert waste, cut emissions, raise awareness, build local skills, and create livelihoods – delivering scalable environmental, social, and economic benefits backed by evidence.

IPPIN's Innovation Programs

IPPIN Incubator

The IPPIN Incubator program is a free five-week online introductory program for researchers, start-ups and SMEs looking to redefine the plastic waste lifecycle.

It is designed to help teams understand the potential of their project or idea with customer discovery and market validation of plastic waste solutions, with support from mentors and advisors to improve communication skills, challenge assumptions and take research projects to the next level.

The program offers the opportunity to connect with entrepreneurs across the Indo-Pacific region, fostering cross-cultural networking and collaborations.

IPPIN Accelerator+

This three-month immersive journey supports validated start-ups and entrepreneurs with early-stage business propositions to tackle plastic waste in Southeast Asia.

Teams enrolled in this program are guided by dedicated coaches providing measurable growth support, along with the flexibility to access workshops, mentorship and technical assistance based on their preferences and needs.

Join the IPPIN Network

Whether you're a researcher, entrepreneur, policymaker, or funder – there's a place for you in our network.


Indo-Pacific Plastics Innovation Network
Together we are ending plastic waste in the Indo-Pacific
ippin.org
Australian Government
Department of Foreign Affairs and Trade
CSIRO
Australia's National Science Agency

Meet the 2025 innovating teams

Please see the IPPIN website to find out more about our Accelerator+ teams

.bungkus

.bungkus is made from
waste to end waste. This is a sustainable design brand dedicated to transforming single-use plastic waste into high-quality designer accessories. By combining artistic craftsmanship with a commitment to sustainability, .bungkus aims to reshape the perception of waste and contribute to a circular economy.

Instagram | Web

Team name .bungkus

Country Singapore

Cohort year 2025

Program IPPIN Accelerator+

Bintang Sejahtera

Bintang Sejahtera provides comprehensive and integrated waste management solutions. We offer three core services: Waste management handling, Resource recovery processing (recycling), Waste management training and consulting.

As consultants, we help companies, government agencies, and other organizations develop a mandatory roadmap for waste reduction and management. Our waste handling services ensure clients' waste is managed correctly and sustainably. We provide detailed data on every step, from collection and sorting to processing, giving clients full transparency on where their waste ends up and how much of it is being diverted from landfills.

facebook | Instagram | Web

Team name Bintang Sejahtera

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Containder

Containder provides plastic waste management and circular economy solutions with two revenue streams: plastic trading and carbon credit selling. The collected plastic waste will be converted into carbon offset credits, which are verified by Sucofindo, the only LVV for carbon credits in Indonesia. Containder is the only waste management company in Indonesia that has established an agreement with Sucofindo.

Containder operates across three locations in Indonesia (Biak, Bali, and North Maluku) preventing approximately 15 tons of plastic waste each month from polluting the environment. To date, Containder has successfully collected 1,061 tons of plastic waste which is equivalent to 1,061 tons of carbon emissions avoided.

Instagram | LinkedIn | Web

Team name Containder

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Daurulang.id

Daurulang.id has developed an integrated waste system that ensures waste is not just disposed of but truly utilised. Through Daurulang's processes, organic waste is repurposed into compost and animal feed, reducing landfill while also supporting agriculture. Meanwhile, low-value plastic, often ignored by traditional recyclers, is transformed into durable building materials like beams and planks.

Instagram | LinkedIn | Web

Team name Daurulang.id

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Meet the 2025 innovating teams

Dit Réveille

Dit Réveille transform HDPE plastic waste into durable, sustainable furniture and merchandise. By repurposing discarded materials, we provide a practical, scalable solutions to Indonesia's recycling challenges while promoting sustainable living. Our circular model reduces landfills waste and support waste pickers. By merging design innovation with environmental action, we create products that inspire conscious consumption and turn waste into lasting value for people and the planet.

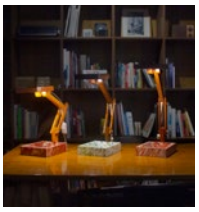
Instagram | LinkedIn | Web

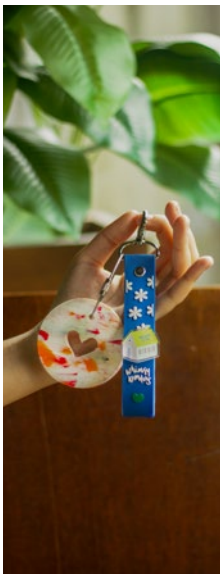
Team name Dit Réveille

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+





IZIFILL

IZIFILL is a smart, contactless water refill station designed to support the growing number of tumbler water bottle users. It offers a convenient way to access fresh, clean drinking water without relying on singleuse plastic bottles. Users can refill their tumblers using just their smartphones - no app download or physical contact with the machine required.

IZIFILL addresses a critical gap in the water distribution system, making sustainable hydration more accessible in high-traffic areas like campuses, offices, or public spaces.

While many consumers have shifted to using tumblers, infrastructure has not kept pace. IZIFILL bridges that gap, making refill behaviour more practical and scalable.

So far, IZIFILL has served over 5,900 users, eliminated more than 25,000 plastic bottles, and distributed over 7,600 liters of water - driving systemic change toward a zero-waste future.

Instagram | LinkedIn | Web

Team name IZIFILL

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Meet the 2025 innovating teams

Parongpong RAW Lab

Our solution tackles the critical issue of Abandoned, Lost and Discarded Fishing Gear (ALDFG) through a circular, community-driven system that integrates collection, recycling, and upcycling of marine plastic waste.

By mobilising fishers, port authorities, and local enterprises, we prevent plastic pollution at its source and give new life to waste through innovative material conversion processes. The system is supported by traceability tools and incentive mechanisms that ensure accountability and active stakeholder participation.

This scalable model not only restores marine ecosystems but also creates economic opportunities in coastal communities, bridging environmental and social impacts. Through collaboration and adaptive technology, we aim to demonstrate how waste can become a valuable resource.

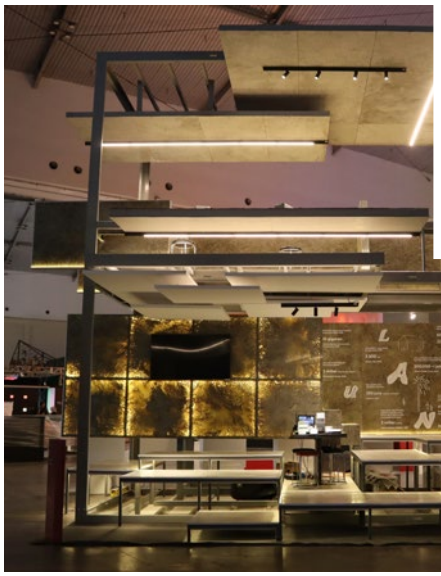
facebook | Instagram | LinkedIn | Web

Team name Parongpong RAW Lab

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+



Rebricks

Indonesia faces a severe plastic pollution crisis, with millions of tonnes of non-valuable plastics like sachets, packaging plastics, and bubble wrap mismanaged annually, often ending up in oceans and landfills.

Traditional waste management and recycling efforts fall short of addressing this growing issue. Rebricks addresses this problem by transforming these hard to- recycle plastics into durable, eco-friendly building materials.

Using non-toxic, scalable methods that minimise water use and avoid toxic fumes, Rebricks produces pavers, hollow blocks, guiding tiles, and ventilation blocks, each incorporating 2–3 kg of recycled plastic per square meter.

Tested rigorously in Indonesian and Singaporean labs, the products meet B4T Ministry of Industry pressure standards, while being non-combustible, non-toxic, and slip resistant.

facebook | Instagram | LinkedIn | Web

Team name Rebricks

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Meet the 2025 innovating teams

Recycling Village

recycling VILLAGE

Recycling Village (RV)
is a social enterprise from Indonesia transforming plastic waste into meaningful fashion accessories while empowering marginalised women artisans.

Founded in 2022, RV works closely with rural and urban communities to collect, sort, and upcycle low value plastic waste into one-of-a-kind fashion statements.

Since inception, RV has empowered 58 women, recycled over 276,460 pieces of plastic bags, and educated 1,000+ people on environmental awareness through interactive workshop classes.

RV envisions scaling its community-based recycling centres and diversifying materials to create greater social and environmental impact across Indonesia and beyond.

Instagram | LinkedIn | Web

Team name Recycling Village

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Refill Loop Indonesia (Refilin)

REFILIN
Refill Keliling

Refillin is an environmental initiative developed by ECOTON (Ecological Observation and Wetlands Conservation). It directly addresses Indonesia's escalating single-use plastic waste crisis.

The program promotes behavioural change by encouraging a refill system for daily necessities like soap, shampoo, detergent, and other household products using reusable containers.

Refillin offers a simple yet impactful solution to reduce reliance on single-use packaging.

Instagram

Team name Refill Loop Indonesia (Refilin)

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Welove4Earth

Welove4Earth is Indonesia's first circular beauty waste startup, transforming post-consumer packaging into measurable environmental and social impact. As a mission-driven enterprise, we tackle the beauty industry's overlooked waste crisis through vertically integrated model that combines recycling, Extended Producer Responsibility (EPR compliance), and women's empowerment.

Our Bumeeco app and Webox bins enable traceable beauty packaging collection and recycling, while our Extended Producer Responsibility (EPR) program helps brands meet rising sustainability standards. Every 20kg of waste collected funds green skills training and jobs for marginalised young women, creating inclusive pathways into the circular economy.

Instagram | LinkedIn | Web

Team name Welove4Earth

Country Indonesia

Cohort year 2025

Program IPPIN Accelerator+

Kirana Agustina, IPPIN Indonesia Chapter speaking live on stage at the 2024 IPPIN Demo Day in Jakarta.

IPPIN Alumni spotlight

Citarum Action Research Program (CARP) is revitalising one of the worlds most polluted rivers

The Citarum River remains one of Indonesia's most critical waterways, supporting over 25 million people through water supply, agriculture, hydropower generation, and livelihoods. Despite years of government-led revitalization programs, long-term success has proven challenging due to complex governance and behavioral factors.

Through the CARP initiative—partly funded by IPPIN—CSIRO, Monash, and local partners continue to demonstrate how science-based, community-led collaboration can deliver tangible improvements. Each week, around 1.6 tonnes of mixed waste are removed from the river, while pilot projects are co-designing integrated waste and wastewater management systems with village communities and local authorities in West Java.

As Indonesia transitions under a new government, CARP offers valuable lessons on maintaining momentum and ensuring policy continuity for river restoration. It exemplifies how evidence-based innovation and local participation can strengthen national efforts to achieve zero plastic discharge and healthier, more resilient communities.

A more sustainable kind of agriculture is here, thanks to SBM TranspiratiONal

Annually around ten million tons of plastic mulch films are used in farming, and that number is expected to grow by 20% every year.

To replace large plastics in agriculture, CSIRO is developing a sprayable biodegradable mulch, a patented innovation that can be sprayed around crops to form a biodegradable membrane to control weeds, conserve water and increase crop yields.

The IPPIN program allowed CSIRO and Salim Agrochemicals to road test CSIRO's SBM in horticulture trials in central west Java. The trials in Java allowed the SBM material to be tested in a tropical climate.

Meet our partners in Indonesia

BRIN
Research Center for Sustainable Industrial and Manufacturing Systems, National Research and Innovation Agency

The National Research and Innovation Agency (BRIN) is Indonesia's central agency that integrates national efforts in research, technology, and innovation. As a partner in the Indo-Pacific Plastics Innovation Network (IPPIN) — a program initiated by the Commonwealth Scientific and Industrial Research Organization (CSIRO), Australia's national science agency — BRIN plays a crucial role in promoting the utilization of research and innovation outcomes and fostering knowledge exchange between researchers, industry, the private sector, and the public.

Through this collaboration, BRIN supports the exchange of scientific insights and research-based knowledge that drives innovation, innovation, and evidence-based practice. This partnership expresses a commitment to ensuring that research and innovation effectively translate into tangible benefits for society and the environment.

One research center that exemplifies this commitment is the Center for Sustainable Industrial Systems and Manufacturing Research, which focuses on circular economy studies and approaches.

Indonesia National Plastic Action Partnership (NPAP)

An impartial multi-stakeholder platform, administered by the World Resources Institute that convenes and facilitates constructive dialogue among policymakers and non-state actors (CSOs, industries, innovators, and academia), while catalyzing collaborative and impactful actions to achieve 100% plastic waste management by 2029 through a circular economy approach—working towards eliminating plastic pollution across its lifecycle.

Co-Chaired by Indonesia's Ministry of Environment & Coordinating Ministry for Food Affairs.

Administered by World Resources Institute (WRI) Indonesia

Meet our partners in Indonesia

KONEKSI

KONEKSI is a collaborative initiative in the knowledge and innovation sector that supports partnerships between Australian and Indonesian organisations for inclusive and sustainable policy and technology. Supported by the Governments of Australia and Indonesia, the Program promotes equitable knowledge partnerships and leverages local knowledge to address socio-economic challenges. KONEKSI acts as a vehicle for multidisciplinary solutions by engaging diverse stakeholders from academia, government, civil society, and the private sector.

Ministry of Higher Education, Science, and Technology

The Ministry of Higher Education, Science, and Technology (Mo-HEST) is responsible for developing and executing policies and programs across high-er education, science, and technology. This core function is de-fined by the Minister's Regulation Number 1 of 2024 (Permendik-tisaintek Nomor 1 Ta-hun 2024).

Our mission is to for-mulate and imple-ment policies that serve the Indonesian people, particularly by strengthening the 4,416 universities, ac-ademic communities, and lecturers under our purview to achieve global excellence. We actively pursue inter-national collaboration to foster research, ac-ademic exchange, and innovation, ensuring the nation's sustaina-ble development.

MoHEST strives to cre-ate a robust national scientific ecosystem, ultimately driving In-donesia's global competitiveness through world-class, impactful higher edu-cation, science, and technology.

Alliance to End Plastic Waste

The Alliance to End Plastic Waste is the first corporate partner of IPPIN's Indonesia Chapter, supporting innovations that capture the value of plastic beyond first use to develop lasting circular solutions.

Join the growing movement to **end plastic waste** in the Indo-Pacific

ippin.org

Contact us
CSIRO's Indo-Pacific Plastics Innovation Team
ippin@csiro.au
ippin.org

IPPIN Impact in action

Many IPPIN Alumni are supported to scale the growth and impact of their solutions through IPPIN Grants.

Discover many of these inspiring solutions:
Indo-Pacific Plastics Innovation Network

Partner with CSIRO's Indo-Pacific Plastics Innovation Network (IPPIN)

At IPPIN, we collaborate with corporate, government and not-for-profit partners committed to ending plastic waste and creating a better future for everyone.

Our mission: bridging the gap between research, entrepreneurship, and investment to redefine the plastic lifecycle and create a circular economy.

Partner with IPPIN to achieve your strategic goals

- **Innovation:** solve your plastic challenges, gain early access to cutting-edge solutions, and collaborate on R&D initiatives.
- **Capacity building:** enhance your team's skills and knowledge through mentorship and development opportunities.
- **Collaboration:** build valuable relationships and explore new business collaborations.
- **Attract top talent:** top entrepreneurial talent and accelerate your sustainability efforts.
- **Corporate social responsibility and sustainability:** contribute to societal impact and align with sustainability goals.

Why partner with us?

By partnering with IPPIN, you are aligning with a globally recognised brand that has been solving the world's greatest challenges through innovative science and technology since 1916.

Let's talk!

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