



Australian Government

CSIRO

Australia's National
Science Agency

Indo-Pacific **Plastics** **Innovation** Network

Thailand Chapter 2025

Funded by the Australian Government's Mekong-Australia Partnership

Together we are working
to **end plastic waste**
in the Indo-Pacific

ippin.org

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.

IPPIN is funded by the Australian Government through the Mekong-Australia Partnership and is implemented by CSIRO – Australia's national science agency.

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

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IPPIN's impact: What we've achieved



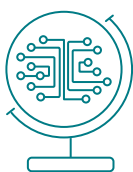
166 teams supported by IPPIN with 81 teams supported across the Mekong region

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.

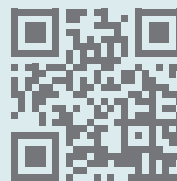
The program offers the opportunity to connect with entrepreneurs across the Indo-Pacific region, fostering cross-cultural networking and collaborations.



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.

Meet the 2025 innovating teams

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

BOP-Blue Ocean Plastic Recycling Co Ltd



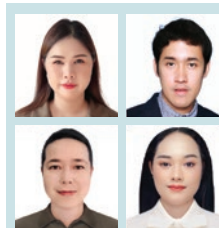
Recycling with rights and inclusivity. Audits with impact.

At BOP, we're redefining human rights in the recycling industry.

We offer comprehensive, scalable human rights auditing services – from tailored training and compliance consulting to a bold new solution: a digital grievance reporting app built for the informal sector.

Our tool gives voice to waste collectors, ensures real-time visibility, and brings traceability to your supply chain like never before. It's low-barrier, multilingual, and GEDSI-aligned – perfect for inclusive ESG and Corporate Sustainability Due Diligence Directive (CS3D) strategies.

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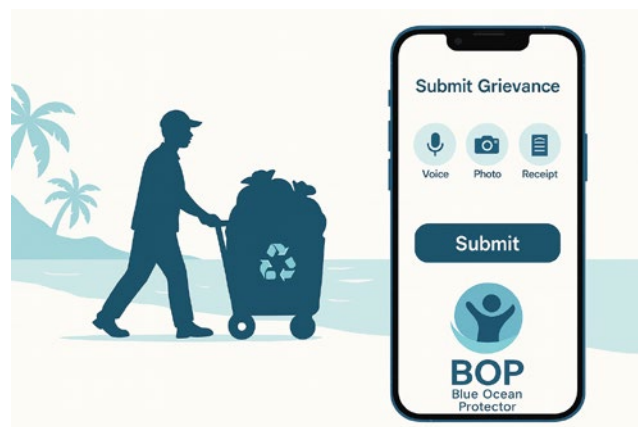


Team name BOP-Blue Ocean Plastic Recycling Co Ltd

Country Thailand

Cohort year 2025

Program IPPIN Accelerator+



Ecocrew



Ecocrew is a sustainability-focused startup building Thailand's reusable packaging infrastructure to replace single-use plastics.

We provide reusable cups, bowls, and containers for events – combined with collection, washing, and return systems that make reuse easy and scalable. Our model integrates logistics, high-standard cleaning at 80°C, and a digital tracking platform so partners can monitor usage, returns, and environmental impact in real time.

By tackling Thailand's 2.7 million tons of annual plastic waste – of which less than 20% is processed – Ecocrew enables brands, event organisers, and communities to cut costs, reduce carbon emissions, and create green jobs, while delivering a seamless experience for end users.

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Team name Ecocrew

Country Thailand

Cohort year 2025

Program IPPIN Accelerator+



Meet the 2025 innovating teams

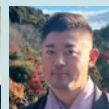
GOMI Solutions Co Ltd

GOMI Innovative waste technology Solutions

The GOMIX Series is a circular waste treatment system based on pyrolysis technology. The system uses a specialized process that allows for large-scale processing of mixed waste, recovering oil from plastics and resins, and charcoal from organic waste.

These recovered resources can be used for various purposes, including as fuel for the GOMIX system, making the system more efficient and self-sustaining. This makes the GOMIX system very versatile and can be applied in various and remote locations.

[Email](#) | [Web](#)



Team name GOMI Solutions Co Ltd

Country Japan/Thailand

Cohort year 2025

Program IPPIN Accelerator+



Local Alike



Local Alike adopt the regenerative tourism model to drive tourism that restores and adds value beyond environmental preservation. It emphasises community ownership and leadership in revitalising local economies through fair business practices and community funds. Cultural traditions are restored by engaging visitors with authentic knowledge and participation. Environmental restoration combines traditional wisdom with modern science, promoting conservation and ecological recovery.

Waste management is integral, involving community-tourism partnerships to reduce plastics, implement recycling, engage tourists, fund waste projects, and educate stakeholders. This creates a circular tourism system fostering long-term sustainability and shared responsibility.

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Team name Local Alike

Country Thailand

Cohort year 2025

Program IPPIN Accelerator+



Meet the 2025 innovating teams

Namtha Aa Saa



Our mission is to create a positive social and environmental impact. We craft unique, eco-friendly accessories, from repurposed plastic waste, a process that both reduces pollution and provides meaningful employment for the Akha community of North Laos. We plan to diversify our product line with new accessories and innovate by testing new types of plastic waste.

A core part of our strategy is to scale our production and expand our market presence from Luang Namtha to Luang Prabang. This expansion will create more jobs for Akha youth, particularly those from GEDSI groups, ensuring a broader social impact as our business grows.

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Team name Namtha Aa Saa

Country Laos

Cohort year 2025

Program IPPIN Accelerator+



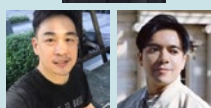
PETWood



PETWood offers innovative, sustainable solutions that transform orphan plastic waste – such as coloured PET bottles and PLA cups – into durable, toxin-free panels for diverse applications. Our primary products include PETWood Panels for furniture, interior fitouts, and outdoor infrastructure including custom-designed solutions for corporate ESG projects, hotels, and public spaces, and ready-made furniture for schools, community centres, and green hotels.

Through a closed-loop system, PETWood maximises material reuse, strengthens local economies, and delivers measurable environmental and social impact. This integrated approach positions PETWood as a catalyst for a circular economy in Thailand and beyond.

[Web](#)

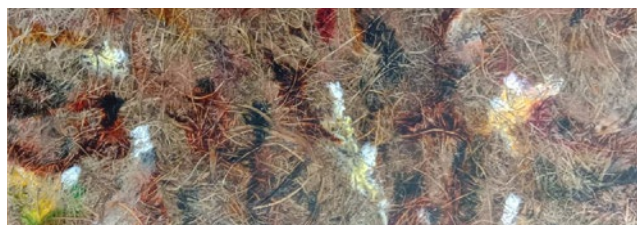


Team name PETWood

Country Thailand

Cohort year 2025

Program IPPIN Accelerator+



Meet the 2025 innovating teams

Rematterso (Remat)



Remat Solution is redefining how industries view overlooked waste. We transform difficult-to-recycle materials into semi-raw products that can seamlessly integrate back into everyday life.

Our first product is fibre plastic pellets, created from non-tradable paper and multilayer waste – materials that are notoriously hard to separate, recycle, and typically end up in landfill or incineration, driving carbon emissions. By giving these wastes new value, we extend their lifecycle and return them to the production stream.

We focus on dry production processes, avoiding pollution risks and costly water treatment, while ensuring sustainability at every step. The resulting fibre pellets are engineered to replace HDPE or PP, offering strength and resilience, and are fully compatible with existing plastic industry machinery such as injection molding and extrusion.

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Team name Rematterso (Remat)

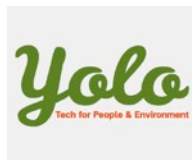
Country Thailand

Cohort year 2025

Program IPPIN Accelerator+



YOLO

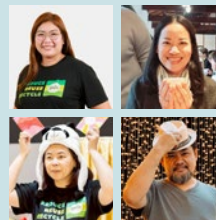


Zero Waste YOLO provides end-to-end waste management solutions for hard-to-recycle low-value plastics, integrating consultation, machines and moulds, and upcycled products into one model.

Our upcycled products transform collected plastics into functional, high-value goods such as eyewear, pens, coasters, medals, and fashion accessories, providing a tangible link between waste segregation and resource recovery.

By combining technical innovation with behavioural change strategies, YOLO creates closed-loop systems that reduce landfill waste, generate income for vulnerable groups, and promote circular economy practices across Thailand.

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Team name YOLO

Country Thailand

Cohort year 2025

Program IPPIN Accelerator+





IPPIN Alumni spotlight

CIRAC – shaping a new frontier of sustainable snack packaging

Food packaging accounts for 40% of all plastic waste worldwide. The Circularity Accelerator (CIRAC), in part supported through an IPPIN grant is developing ground-breaking thermal processing technology to separate aluminium in plastic to ensure the plastic can be reused.

Through the 2024 IPPIN Accelerator+ Program, CIRAC were able to hone their fundraising strategy, revenue model, and pitch through personalised coaching, workshops and mentorship, fast tracking their go-to-market timeline.

“IPPIN’s Accelerator+ facilitated introductions to CSIRO-linked experts and government stakeholders – like Thailand’s National Innovation Agency – creating pathways for multi-stakeholder pilots and policy collaboration we would likely have missed independently”, says Sikarin Tamiyakul, Co-Founder of CIRAC.

Meet our partners in Thailand



Thailand Environment Institute

Thailand Environment Institute (TEI) is a non-profit and non-governmental organisation, focusing on environmental issues. We work as an autonomous technical institution that plays a significant role in promoting an international standard of environmental management and sustainable development, covering the three dimensions of sustainability (economic, social, and environment), both nationally and regionally. Thailand Environment Institute (TEI) has been recognized by both national level and international level.

TEI on the country's environmental roadmap covers all dimensions to enhance environmental management, which will be the foundation for sustainable development of the country. Natural Resources, Pollution and Environment, Industrial Environment, Urban and Community Environment, Sustainable Consumption and Production, Climate Change, Policy, Plan and Environmental Network and Environmental Capacity Development.



National Metal and Materials Technology Center (MTEC), a member of National Science and Technology Development Agency (NSTDA)

SmartCirc: Design for SAFE Plastic Circulation

The exhibition will showcase innovative solutions in the circular economy for plastics, focusing on design for recyclability and safe plastic circulation.

The goal is to share practical insights and encourage collaboration for testing, co-developing technologies, and identifying pilot companies ready to implement circular innovations, driving impactful outcomes in plastic recycling and reuse.

Showcases:

- **Closed-loop Recyclable Solution:** Display the design for high-quality PCR. Present samples of high-quality PCR plastic products used in packaging or consumer goods.
- **How Safe are the Plastic Products?** Showcase materials that have undergone advanced screening for toxic substances and safe/unsafe for circulation.
- **Advanced Testing Methods for Plastics:** Provide a visual overview of the rapid testing technologies for detecting hazardous chemicals (e.g., POPs monitoring).

Meet our partners in Thailand



**THAILAND INSTITUTE OF SCIENTIFIC
AND TECHNOLOGICAL RESEARCH (TISTR)**



Thailand Institute of Scientific and Technological Research (TISTR)

Thailand Institute of Scientific and Technological Research (TISTR) is a national research development organization under the Ministry of Higher Education, Science, Research and Innovation (MHESI), that plays a critical role in advancing area-based and appropriate technologies for SMEs and local communities. In addition, TISTR provides Science, Technology, and Innovation (STI) services to support the industrial sector.

TISTR's recent work develops sustainable plastic alternatives and improving recycling technologies to align with circular economy principles. These efforts

include the creation of environmentally-friendly materials, enhancing the recyclability of plastics, material recovery Facility (MRFs) and meeting international standards for eco-friendly products. By actively working with SMEs and industries in Thailand, TISTR facilitates innovation and supports the transition to more sustainable, biodegradable plastic solutions. This work is especially crucial in light of the increasing global demand for sustainable packaging and plastic alternatives, aligning with the global push towards environmental sustainability and circular economy models (Waste to wealth and waste to energy by science technology and innovation).



National Innovation Agency (Public Organization) (NIA)

Assigned to drive the national innovation system in Thailand, NIA is under the Ministry of Higher Education, Science, Research and Innovation and works as a Focal Facilitator to support and scale up Innovation-driven Enterprises (IDE) through GROOM, GRANT, GROWTH and GLOBAL initiatives.

GROOM is for supporting students and entrepreneurs to have a business mindset.

GRANT focuses on entrepreneurs using innovation to drive their business by helping reduce the risk of developing innovation. Under GRANT, we have 9

schemes to support IDE, including Open Innovation, Regional Market Validation, Working Capital Interest, Thematic Innovation, Standard Testing, MIND, Market Expansion, Zero Loan Interest, and Corporate Co-funding.

GROWTH helps IDE to grow and scale up to domestic and international markets through financial and non-financial programs. For example, Accelerations and Incubation programs.

Finally, GLOBAL is supporting high potential Thai enterprises to compete on the global stage such as market expansion to foreign countries, cross-border investment.

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

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Contact us

CSIRO's Indo-Pacific Plastics Innovation Network team

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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!

Andrea Sosa Pintos

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