



Australian Government
Department of Foreign Affairs and Trade

CSIRO

Australia's National
Science Agency

Indo-Pacific **Plastics** Innovation Network

Demo Day 2024

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



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

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

The Indo-Pacific Plastics Innovation Network (IPPIN) is designed to nurture ideas and empower ventures by bridging the gap between research, entrepreneurship, and investment to redefine the plastic lifecycle and create a circular economy.

Recognising that plastic waste knows no borders, we operate across Indonesia, Thailand, Vietnam, Laos and Cambodia.

IPPIN is supported by the Australian Government under the Mekong Australia partnership and implemented by CSIRO. CSIRO is Australia's national science agency which is using science, innovation and technology to solve our biggest challenges.

Together, along with our in-country partners we are using the power of science, innovation, and technology to accelerate sustainable breakthroughs in plastics innovation.

To date IPPIN has engaged over 3000 people in program activities and supported 130 global entrepreneurial teams to scale-up sustainable and innovative technologies.

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Defining the plastic waste problem

Working collaboratively across all cross-sections of society, we've worked to identify 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 – using science, innovation and technology to turn plastic problems into circular, scalable solutions.

Fast facts



Plastic pollution in our oceans accounts for an estimated 80 per cent of marine litter.



Every minute a truckload of plastic waste enters the ocean, totalling approximately 12 million tons annually. This alarming rate equates to one garbage truck worth of plastic every minute.



Only 9% of all plastic waste ever produced has been recycled. The rest ends up in landfills, incinerated or polluting the environment.



Soft plastics, such as plastic bags, are the biggest plastic killer to marine life.

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 will be 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.



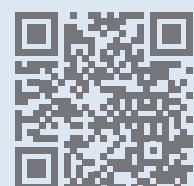
Join us as a mentor

Our program connects aspiring entrepreneurs with experienced industry professionals, and innovators from diverse backgrounds.

By mentoring with us, you'll make a lasting positive impact and sharpen your management, coaching, networking,

and leadership skills while interacting with a team of passionate entrepreneurs.

Mentoring is a powerful form of professional development that empowers emerging innovators and provides a platform for cross-fertilisation of ideas.





Meet the 2024 innovating teams

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

Delifill



Delifill operates a refill and reuse service platform that offers household and personal care products such as shampoo, body wash and detergents, which customers can either refill at their physical store in Ari, Bangkok or have delivered to their doorstep in reusable containers via electric bike.

The company's aim is to provide customers with a zero-waste option of accessing a diverse range of products at various price points, sourced from both commercial and independent homegrown suppliers.

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Team name Delifill
Country Thailand
Cohort year 2024
Program IPPIN Accelerator+



PlanticCambodia

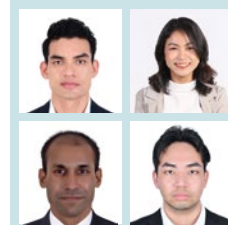


PlanticCambodia is a startup dedicated to tackling plastic pollution at its source with plant-based alternatives in Cambodia.

Its product, Plantic Bags, directly addresses the issue of plastic pollution by providing a 100% compostable, biodegradable, and reusable alternative to traditional plastic bags.

By integrating plantic bags into the consumer market and supply chains, it aims to reduce the influx of new plastics into marine environments. PlanticCambodia's solution not only prevents plastic waste but also fosters a shift in consumer behavior towards sustainable practices.

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Team name PlanticCambodia
Country Cambodia
Cohort year 2024
Program IPPIN Accelerator+



Meet the 2024 innovating teams

Print Squares



Print Squares is creating machinery to recycle PET bottles into strong 3D printing filament, with plans to scale up production. They also collaborate on making prosthetics for landmine victims in Laos from recycled plastics and are doing R&D on other potential applications for rPET in areas such as cheap construction materials and affordable homes.

Vientiane faces a severe plastic waste problem, with up to 70 tonnes generated daily, mostly from discarded drinking water bottles, leading to overflowing landfills and environmental pollution. While some recycling efforts exist, Print Squares is focussed on repurposing plastic bottles into useful products rather than just raising awareness through marketing campaigns.

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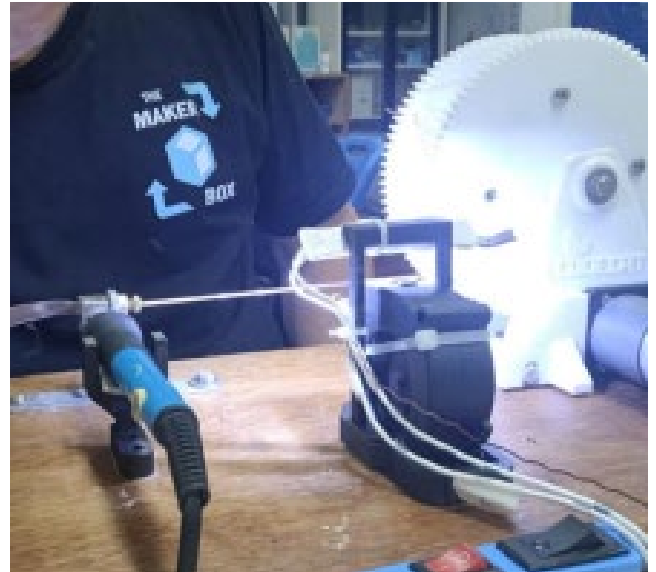


Team name Print Squares

Country Laos

Cohort year 2024

Program IPPIN Accelerator+



Trash is Nice



Trash is Nice is a recycling center based in Phnom Penh, Cambodia, where they turn discarded plastic into unique, long-lasting objects. Using innovative tools, machines, and techniques, Trash is Nice transform plastic waste into beautiful and functional pieces, from glass coasters to furniture and trophies, revealing the hidden potential of this often overlooked material. By collecting plastic locally and giving it a new life, they actively work to prevent pollution. Workshops for schools and community groups dive into the plastic lifecycle and creative recycling process, empowering participants to make their own items from waste. This hands-on experience not only educates but also inspires positive changes in plastic use and recycling habits within the community. As part of the global Precious Plastic network, Trash is Nice is committed to reshaping perceptions of plastic – from a cheap, discarded material to a source of unique and meaningful creations.

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Team name Trash is Nice

Country Cambodia

Cohort year 2024

Program IPPIN Accelerator+



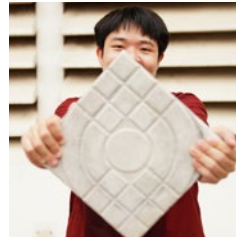
Meet the 2024 innovating teams

Up-Sta-Sim



Up-Sta-Sim, which stands for Upcycling, Sustainable, and Simplify technique, is more than just a solution; it's a movement towards a more sustainable future for fashion. They are passionate about tackling the massive problem of garment waste head-on, with an approach centred around upcycling, breathing new life into discarded clothing and transforming it into valuable creations.

Up-Sta-Sim believe in empowering individuals and communities to embrace sustainable practices, making it easy and accessible for everyone to contribute to a circular economy. By championing upcycling and exploring innovative technologies like Engineered Cementitious Composites (ECC), which repurposes garment waste in cement production, they are dedicated to reducing waste and creating a greener fashion landscape. The Up-Sta-Sim concept simplifies the process of transforming waste into something new and useful, making it a game-changer for garment waste management.



Team name Up-Sta-Sim
Country Thailand
Cohort year 2024
Program IPPIN Accelerator+



Waste 2 Cash



Waste 2 Cash provides a solution for global issue of improper waste disposal, especially in regions with inefficient systems. They offer a high-tech plastic bottle and can sorting machine that uses advanced sensors.

Unlike current methods that rely on manual sorting and struggle to track untraceable plastic producers, Waste 2 Cash's technology efficiently sorts and tracks waste, addressing accountability gaps.

Further, the machine designed to be easily understood by people of all ages and backgrounds which supports multiple language work together with voice-assistant user interface that support disability and GEDSI users.



Team name Waste 2 Cash
Country Thailand
Cohort year 2024
Program IPPIN Accelerator+





Meet our partners in Thailand



Thailand Environment Institute



Thailand Environment Institute (TEI) is a non-profit and non-governmental organization, 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) 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 and GROWTH.

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

"GRANT" is for entrepreneurs using innovation to drive their business by helping reduce the risk of developing

innovation. For "GRANT", we have 9 schemes to support IDE: Open Innovation, Regional Market Validation, Working Capital Interest, Thematic Innovation, Standard Testing, MIND, Market Expansion, Zero Loan Interest, and Corporate Co-funding.

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

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

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For further information
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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: draw 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 your company 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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