

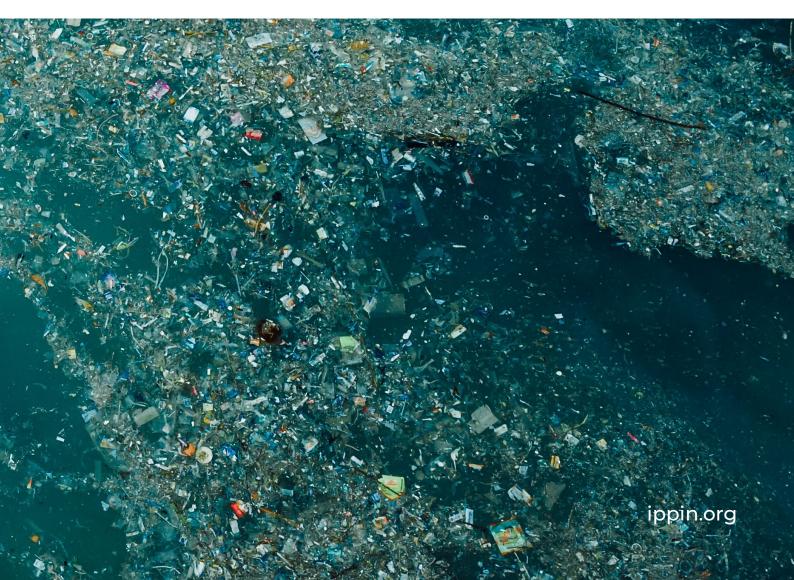
Australian Government



# Indo-Pacific **Plastics Innovation** Network

## Demo Day 2024

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





## 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 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.

#### ippin.org



## 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

DJAMU

#### DJAMU

**DJAMU** makes high grade upcycled yarn from waste bottle caps for furniture manufacturers, basket makers

and crafters. Our yarn is a substitute for virgin plastic yarns. It is strong, lightweight, waterproof and colourful. Our business recipe benefits people and planet. Our yarn is made by waste-picker and informal workers in Jakarta Indonesia. Bottle caps are collected from the waste stream, sorted and processed by hand then converted to yarn using digital technology.

Waste pickers are our social beneficiary – receiving meaningful work and improved income. 80 billion plastic bottle caps are made in Indonesia each year. Many of these escape into the environment polluting land, waterways and oceans. DJAMU's circular solution intercepts caps and converts them to new high-quality materials.



Team name DJAMU Country Indonesia – Australia Cohort year 2024 Program IPPIN Accelerator+



Instagram | LinkedIn | Web

## **Get Plastic Indonesia**



**Get Plastic** is based in Bali Indonesia, focusing on research and development for pyrolysis technology. Since 2016 we have developed 15 types of pyrolysis machine and implemented projects in 32 areas around Indonesia.

The core of this innovative solution is the process of converting low value plastic into fuel. Our output is fuel, gas, and black carbon residue which are all valuable products for the community. We are already implementing the project in coastal areas to support the blue economy by providing plastic waste fuel to fishermen.

We collaborate with local communities to work and build waste management schemes. This solution aims to protect underwater species, and also helps local communities access alternative energy from plastic waste.



Team name Get Plastic Indonesia Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



#### Komodo Water



Since 2010, Komodo Water has committed to

providing clean water to rural and coastal communities. Collaborating with local waste pickers and environmental enthusiasts, we collect plastic waste from beaches, cafes, hotels, and public spaces in Labuan Bajo and Komodo National Park – all of which are part of the Komodo Biosphere Reserve Area. This joint effort helps maintain the beauty of these critical high biodiversity value areas while involving the community in environmental stewardship.

Our initiatives support sustainable fishing and tourism by recycling plastic into valuable items like coasters, keychains, and interior materials. The initiative enhances local circular economies and supports the 'Labuan Bajo Plastic 2035' movement, engaging tourists and donors in our cause through meaningful, eco-friendly products.

facebook | Instagram | LinkedIn | Web



Team name Komodo Water Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



#### MeteOceanKita



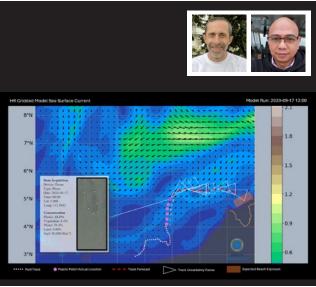
Unifying the expertise of two MeteOcean startups specialising in maritime weather forecast and marine debris pollution, **MeteOceanKita** has developed an information platform with high-resolution mapping capabilities, integrating an application that can identify and catalogue plastic debris concentrations.

By integrating real-time metocean data, the application can track and predict the movement of plastic patches. Using our services is crucial to deploy operational equipment at the right time and the right place to increase efficiency.

It is designed for decision makers from maritime authorities, public and private, and for those in the fishing and tourism sector who have had enough and now want to take action. With user-friendly interfaces, the application can also serve as a platform for community involvement, empowering local stakeholders to participate in the reporting and cleanup process.



Team name MeteOceanKita Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



## Meet the 2024 innovating teams

#### Monumen Antroposen



**Monumen Antroposen** transforms plastic residue into standardised bricks and tiles to combat climate change and promote a circular economy.

The project collects plastic waste from waterways, roadsides, and households, processing it into durable building materials.

This initiative addresses environmental pollution and creates jobs through a community-driven circular economy model.



Team name Monumen Antroposen (cooperation with BRIN) Country Indonesia Cohort year 2024

Program IPPIN Accelerator+



Instagram

#### **Planet NetZero**



Our expertise lies in designing,

developing, and delivering impactful sustainable projects. We harness the power of waste, converting it into valuable capital that fuels positive change. We lead the way in cutting-edge sustainable solutions. Our mission is to transform waste into opportunity, driving a net-zero future. Through innovative projects and collaborations, we create value for our planet, society and economy. Together we ignite change, inspire action and shape a sustainable future.

Our diverse background encompasses expertise in resource development, sustainable practices, ecosystem and species preservation, environmental law, and investment banking. Impacting communities, soil, air and water, transforming waste and emissions into capital; we create a world where carbon emission, waste and soil degradation become valuable resources to fund environmental and social sustainability.

Instagram | LinkedIn | Web



Team name Planet NetZero Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



### Plustik

**Plustik** tackles the problem of low-value, hard-to-recycle plastic waste by extracting it from landfills and

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Rehijau

converting it into commercial, non-single-use products.

Based in the Galuga landfill in Bogor, Indonesia, we recycle up to 5 tons of plastic daily into items like award-winning pavement blocks and floor decking. This approach addresses the often overlooked issue of non-bottle plastic waste, showcasing a scalable circular economy model adopted by cities like Bogor.

Plustik's unique value lies in using 100% mixed low-value plastics sourced by our team, creating practical, cost-effective products while significantly reducing landfill waste.

Instagram | Web



Team name Plustik Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



## Rehijau

**Rehijau** revolutionises waste management by transforming

traditional and informal waste banks, and empowering local communities in establishing their own waste banks, by providing 3 core services: technical assistance, financing and integrated waste management systems.

Rehijau purchases plastic collected by waste bank partners and then processes it into plastic flakes and pressed plastic waste and pellets, which are subsequently sold to plastic factories.

This ensures Rehijau's program and impact are sustainable long after the IPPIN Accelerator+ program. The profits will be reinvested to increase the number of waste banks and expand into new regions.



Team name Rehijau Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



## Meet the 2024 innovating teams

#### Repax



**Repax** tackles the environmental impact of e-commerce logistics in Indonesia by offering a reusable packaging solution.

We provide an infrastructure for third-party logistics, enabling customers to return and merchants to reuse packaging, thereby reducing single-use waste like plastic bags and cardboard boxes.

Despite challenges in cost and performance, Repax aims to meet standards across the supply chain, ensuring sustainability and addressing the waste from over 11 million daily logistics shipments in the country.



Team name Repax Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



Instagram | LinkedIn | Web

#### SAMPAPP



**SampApp** is the first digital project raising awareness around the ongoing waste crisis in Indonesia at scale. Featuring content and games for users to test their knowledge and challenge their practices, SampApp is filling in the lack of official curriculum on waste management, and aims to become everyone's homework by the time EPR laws are fully implemented.

We work with communities and CSR projects to trigger behaviour change in individuals through education – and work on a long term solution. To encourage best practices and completion of courses, we occasionally partner with brands to deliver incentives such as gifts, vouchers or profiling on social media.

Our team is spread across Indonesia with offices in Surabaya, directed by sustainability KOL @BuleSampah and co-founded with leading recycler RECO.



Team name SampApp Country Indonesia Cohort year 2024 Program IPPIN Accelerator+



## Solusi Sungai Resik

cleanup events.



**Solusi Sungai Resik** is a foundation body established in 2023, with its

body established in 2023, with its main focus on preventing plastic waste pollution in the oceans. Since its founding, we have successfully collected over 300,000 kg of plastic waste from the Citarum River, recruited 10 staff members from the local community,

and educated over 300 participants during river

The innovation in our solution lies in comprehensive plastic waste management activities. We conduct daily collection of plastic waste from the river, which is then taken to our sorting facility for segregation. Valuable plastic waste will be recycled by the local community, while low-value plastic will be sent to cement factories as fuel to substitute fossil fuels through an energy recovery process. This prevents waste collected from the river from ending up in landfills. Additionally, we also strive to produce economically valuable products from low-value plastic waste collected from the river. This solution is much more efficient compared to similar activities operating in the oceans or when plastic waste collected from water is sent to landfills.



Team name Solusi Sungai Resik Country Indonesia Cohort year 2024 Program IPPIN Accelerator+





#### **NPAP Indonesia**

**Partner name** Indonesia National Plastic Action Partnership (NPAP)

**Country** Indonesia

Indonesia National Plastic Action Partnership (NPAP) is a multistakeholder platform that convenes policymakers, academia, researchers, experts, industries, and civil organizations to collectively act against plastic pollution, helping Indonesia achieve its ambition of 70% reduction in marine plastic leakage in 2025 and near-zero in 2040. Indonesia NPAP seeks to strike a balance between

#### economic growth and preserving nature by accelerating the development of circular solutions to resolve the plastic pollution challenges.

Indonesia NPAP is a part of the Global Plastic Action Partnership (GPAP) initiative that was initiated by the World Economic Forum (WEF). In 2019, WRI Indonesia was appointed as the Indonesia NPAP secretariat.



#### Kedaireka

**Partner name** Kedaireka – Ministry of Education, Culture, Research, and Technology

**Country** Indonesia

Kedaireka is a strategic research and innovation program under the Ministry of Education, Culture, Research, and Technology of the Republic of Indonesia.

Through our various programs and funding schemes such as Matching Fund/PDP and Innovation Fund, we are committed to to foster collaboration between higher education institutions and industry to drive innovation, technological enhancement, and solve problems encountered by industries and Indonesian society at large.

Kedaireka is proud to support Indo-Pacific Plastics Innovation Network - Indonesia Hub Demo Day.



Our research center has concern to investigate sustainable utilization of plastic from cradle to grave, in particular to evaluate the potential environmental impact such as global warming, energy consumption, toxicity, etc. Some of activities including the life cycle study of bioplastic and sustainability analysis of low value plastics for construction materials. Aside for publication in the

#### BRIN

**Partner name** Research Center for Sustainable Production System and Life Cycle Assessment, National Research and Innovation Agency (BRIN)

**Country** Indonesia

global journals, our study has also been compiled into a copyright of a datasets inventory of plastics, which can be referred as national database in the future. Further, we also collaborate with Monumen of Antroposen in Yogyakarta, under grant from IPPIN CSIRO to assess the potential environmental impact of plastic waste recycling for various purpose such as brick wall, floor tile, etc.

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

ippin.org

For further information CSIRO's Indo-Pacific Plastics Innovation Team ippin@csiro.au ippin.org

#### 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!

Andrea Sosa Pintos Senior Program Manager, Indo-Pacific Plastics Innovation Network, CSIRO andrea.sosapintos@csiro.au +61 2 9413 7397 | +61 460 041 502