THE INCUBATION NETWORK
By The Circulate Initiative & SecondMuse

GLOBAL INNOVATION CHALLENGE

FUTURE OF FLEXIBLES

MEET OUR COHORT!

BETTER SOLUTIONS FOR HARD-TO-RECYCLE PLASTICS

About the Challenge

The Incubation Network's second annual **Global Innovation Challenge: Future of Flexibles** has identified innovative solutions that can drastically reduce flexible plastic waste in Asia.

In 2018, the world produced a total of 855 billion sachets of flexible plastics. In Asia, the majority of these plastics end up in the environment, causing a myriad of problems from the release of toxic pollutants in the air and waterways, to increased flooding from clogged drains.

This year, we explore solutions for hard-to-recycle flexible plastics using two approaches:

Rethinking flexible packaging materials, products within the packaging, and business models.

Recycling flexible plastics through downstream innovations in collecting, sorting, processing and end use.

The challenge sources, supports, and scales enterprising ventures that provide real-world solutions for materials that lack financially viable end uses in South and Southeast Asia, such as flexible and multi-layered plastics (MLP).

After receiving **over 120 applications from 30 different countries**, a cohort of ventures has been selected to join one of two program tracks:

- **An incubation track** for young startups eager to get their innovation off the ground
- **An acceleration track** for more mature startups and SMEs interested in expanding their footprint in South and Southeast Asia

Meet the Cohort

Ashaya

India

Visit Website

Ashaya is a social enterprise that aims to increase the value of waste through technological and scientific innovations in recycling. They then fairly redistribute that value to stakeholders in the supply chain, especially those who are the poorest: waste-pickers.

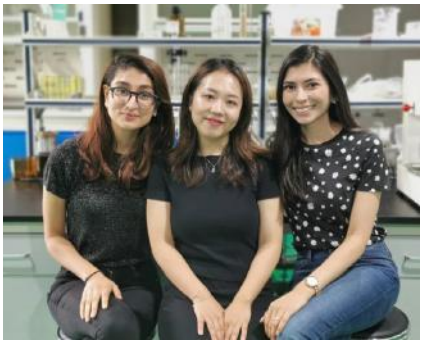
Ashaya's innovation aims to economically separate multi-layered packaging into its constituent layers and upcycles them into high quality 3D printing filament. **This solution optimizes processing and end use of flexible plastic waste.**

Incubation **Recycle**

Erthos Inc.

Canada & China

Visit Website



Erthos Inc. is a group of scientists, environmentalists and engineers with a belief in better materials. Their mission is to transform the zero-waste landscape while respecting the evolution of change, making plant-powered plastics the natural choice.

Erthos Inc. focuses on plant-powered alternatives to plastic inputs that are compatible with existing technology and compostable in our environment. **This solution rethinks the design of flexible packaging.**

Acceleration **Rethink**

Greenhope

(PT Harapan Interaksi Swadaya)

Indonesia

Visit Website

Greenhope™

Greenhope is a green technology company headquartered in South Jakarta, and have distributed their technology to several countries across Southeast Asia, Africa, Europe, and the United States. They are focusing on growth into new markets with their line of compostable and biodegradable cassava-based bioplastics,

This solution rethinks the design of flexible packaging.

Acceleration **Rethink**

IQ Energy Australia

Australia

Visit Website

IQ Energy Australia

IQ Energy Australia is an innovative environmental technologies company providing modular advanced thermal treatment solutions. They repurpose waste locally into sustainable, circular products for local communities and businesses in Australia and the surrounding region.

IQ Energy Australia's solution is built around plastic recycling technology powered by renewable energy, with minimal emissions. **This solution optimizes the processing and end use of flexible plastic waste.**

Acceleration **Recycle**

Magorium

Singapore

Visit Website

Magorium is a polymer technology company that focuses on utilizing plastic waste for construction and road-laying purposes. They are the winners of the waste-tech startup competition, WASTE 20/20.

Magorium chemically re-engineers contaminated plastic waste into a new material for sustainable road construction. **This solution optimizes the processing and end use of flexible plastic waste.**

Incubation **Recycle**

MarinaTex

United Kingdom

Visit Website

MarinaTex was created as a final year project at The University of Sussex. They've experimented with over 100 different iterations to refine their material and process to create everything from bags to single-use packaging with a variety of different applications. MarinaTex is the 2019 International Winner of the James Dyson Award.

This innovation is a new material made from natural, sea based ingredients that degrades in a soil environment within 6 weeks, tackling single-use plastic packaging films. The organic formula does not leach harmful chemicals and can be consumed without causing any harm to wildlife or humans. **This solution rethinks the design of flexible packaging.**

Incubation **Rethink**

Novoloop

USA

Visit Website

Novoloop transforms packaging waste into high-performance materials used in shoes, cars, homes, and more. Their materials perform like those made from virgin fossil fuels and contain up to 50% post-consumer recycled content and reduce up to 45% carbon emissions. Novoloop's low-carbon manufacturing method also offers meaningful sustainability while maintaining quality for consumers, brands, and the materials industry as a whole.

Instead of decomposing PE film back into the original low-value material of ethylene to make another single-use plastic, Novoloop is harnessing the carbon in PE through its core chemical recycling technology to make durable, high-performing materials that will increase the value proposition of recycled flexible packaging. **This solution optimizes the processing and end use of flexible plastic waste.**

Acceleration **Recycle**

pFIBRE

Singapore

Visit Website

pFIBRE is a resin manufacturing company that uses 100% marine biodegradable plant-based ingredients to make flexible packaging films. They offer sustainable, fully biodegradable B2B packaging solutions for circular economies.

Their developing innovation is a technology to manufacture flexible packaging films that replicate the properties of plastic while using 100% plant-based ingredients. **This solution rethinks the design of flexible packaging.**

Incubation **Rethink**

Plastics For Change

India

Visit Website

Plastics For Change has developed an ethical sourcing platform to create sustainable livelihoods for the urban poor, while transitioning the industry towards a circular economy. They have been developing several breakthroughs in India's plastics industry, including food grade PET, 100% recycled HDPE bottles, Reach + Rohs compliant ABS, Polyester filament and more.

This innovation centres around utilising low-value plastic and converting it into high-value, low-cost construction material for housing in India. **This solution optimizes the processing and end use of flexible plastic waste.**

Acceleration **Recycle**

PolyCycl

India & Singapore

Visit Website

PolyCycl is a circular economy company, focused on addressing one of the biggest pain points in field of waste management – the challenge of recycling flexible plastics. Working across 150+ man-years of R&D, the company has developed novel technology solutions for advanced recycling and purification of 'non-recycable' landfill waste plastics.

PolyCycl has a portfolio of solutions that takes one of two approaches: (1) converting low-grade, mixed polyolefin plastics to hydrocarbon feedstocks that are approved for manufacturing of new monomers and virgin plastics or (2) upcycling hard-to-recycle plastics using solvent dissolution methods to recover purified resin. **This solution optimizes the processing and end use of flexible plastic waste.**

Acceleration **Recycle**

Recube Circular Solutions

India

Visit Website

Recube Circular Solutions is a portable convenience store made accessible at the consumer's doorstep, providing them with an entire range of home care products in the most eco-friendly & sustainable way possible.

Recube Circular Solutions' portable refill station eliminates single-use plastic packaging by refilling consumer products at their doorstep. **This solution rethinks the business model behind flexible packaging.**

Incubation **Rethink**

recycleX

India & Singapore

Visit Website

recycleX is India's first startup manufacturing products from plastic, industrial, and C&D Waste. Their mission is to provide innovative and sustainable solutions to the global waste pandemic by manufacturing building materials for India's future.

This innovation aims to transform waste to building materials as well as provide sustainable solutions for a greener construction world. **This solution optimizes the processing and end use of flexible plastic waste..**

Incubation **Recycle**

ReForm Plastic

Myanmar & Vietnam

Visit Website

ReForm Plastic is a registered social enterprise with a pilot facility in Vietnam and two franchise facilities in Myanmar. Their mission is to reduce plastic pollution in marine environments while creating local jobs, businesses, products, and a local circular economy.

They transform undervalued non-tradable plastic waste into durable commodity products such as housing, furniture, and more though a decentralized social franchise model. **This solution optimizes the processing and end use of flexible plastic waste..**

Acceleration **Recycle**

Siklus

Indonesia

Visit Website

Siklus delivers consumer products via refill tricycles to low-income communities with the objective of minimizing packaging and plastic waste. Their mission is to reduce plastic waste and make everyday necessities more affordable to low-income customers.

Siklus has developed an app that enables customers to pre-order products, receive notifications about goods, and also tracks data on plastic and local waste management conditions. This means cost savings for customers, new revenue opportunities for micro-entrepreneurs, detailed data for FMCGs, and environmental benefits by eliminating the need for single-use sachets. **This solution rethinks the business model behind flexible packaging.**

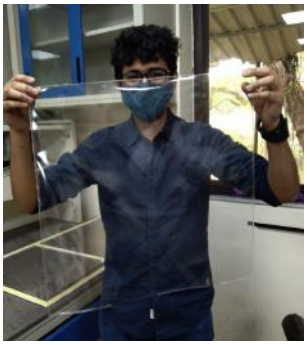
Acceleration **Rethink**

Zerocircle Alternatives

India

Visit Website

zerocircle



Zerocircle builds carbon neutral solutions for ambitious brands harnessing restorative ocean resources. They currently operate in Mumbai and Pune.

Zerocircle's solution is built around making food-safe and industry-ready packaging from locally cultivated seaweed that diverts no resources and leaves nothing behind. **This solution rethinks the design of flexible packaging.**

Incubation **Rethink**

FUTURE OF FLEXIBLES

The Incubation Network's Global Innovation Challenge | FUTURE of FLEXIBLES

Request an Introduction

Email **venturesupport@incubationnetwork.com** to connect with any of our cohort participants.

Acknowledgements

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Canada

Program undertaken with financial support of the Government of Canada provided through Global Affairs Canada