## **2022 Annual Report** The Circulate Initiative



## Ocean plastic pollution: A growing crisis and opportunity for impact



Every year, an estimated **11** million tonnes of plastic enter the world's oceans.

In the absence of needed interventions, this could nearly <u>triple by 2040</u>, reaching 29 million tonnes.



The shift to a circular economy could result in <u>US\$1.27 trillion</u> in savings in direct public and private costs between 2021 and 2040.



There are **<u>15 to 20 million</u> informal waste workers,** who are the backbone of plastics recycling globally.

Informal workers account for roughly <u>58% of collected and</u> recycled plastic waste.

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"Since our founding, The Circulate Initiative has focused on identifying and addressing system-level barriers to the circular economy.

Our research, programs and partnerships in 2022 have reflected the changing needs of those building the circular economy, such as a greater focus on transparency, financing as well as ethical and inclusive sourcing practices."



## Foreword

Since The Circulate Initiative was established in 2018, circularity has evolved quickly from a concept to an urgent priority for governments, businesses, civil society and other stakeholders. There is a clear understanding of the importance of circularity in reducing and ultimately eliminating the flow of plastic waste into the environment. There is also greater attention on how circular practices can be more fully integrated into global value chains and on the need for a systems approach to building circular and equitable economies.

Since our founding, The Circulate Initiative has focused on identifying and addressing system-level barriers to the circular economy. Our research, programs and partnerships in 2022 have reflected the changing needs of those building the circular economy, such as a greater focus on transparency, financing as well as ethical and inclusive sourcing practices.

### Highlights from 2022

Against a background of increased urgency to address the plastic pollution crisis, stakeholders are doubling down on pledges and action to scale financing. With this context, we introduced two new resources to better inform strategic decision making and mobilize capital into the plastics circular economy. The Plastics Circularity Investment Tracker is the

first tool of its kind that discloses the amount of private investments directed to the plastics circular economy in emerging markets. By providing much-needed transparency on capital flows, investors, corporations and policymakers are better equipped to make capital and resource allocation decisions.

In collaboration with the World Economic Forum's Global Plastic Action Partnership, we launched **'Unlocking the plastics circular economy: Case studies on investment'** to spotlight investments made across the plastics value chain and supportive policies in the circular economy, demonstrating the significant potential for impact if the right conditions are in place.

In 2022, we, along with our partner SecondMuse, successfully concluded our flagship program, The Incubation Network. Over the past three years, the program developed a robust ecosystem of solutions to build improved and inclusive waste management and recycling systems in South and Southeast Asia, supporting 358 startups and entrepreneurs across the value chain and resulting in 148,000 metric tons of plastic waste diverted. Our learnings will enable us to further enhance our strategy to eliminate ocean plastic pollution.



#### FOREWORD

#### Looking ahead to 2023

2023 will be a momentous year in the fight against plastic pollution, with the international legally binding instrument on plastic pollution – agreed in principle by 175 countries – as the catalyst. The agreement provides a pathway for countries to commit to national action plans and sends a strong signal to corporations that plastic waste must be reduced. In 2023, The Circulate Initiative will prioritize several initiatives:

The Circulate Initiative has teamed up with Lonely Whale to convene **NextWave Plastics**, a consortium of multinational companies committed to reducing plastic pollution and building socially responsible, sustainable ocean-bound plastic supply chains. To date, NextWave members have collectively diverted 20,479 metric tons of plastic, which is over 80% of its goal of diverting 25,000 tonnes. We look forward to working with NextWave members on topics including hard-to-recycle plastics and responsible sourcing.

The shift to a circular economy offers opportunities to create both environmental and social impact, with discussions and actions to create inclusive and ethical plastic supply chains gaining traction. Our upcoming **Responsible Sourcing Initiative** will convene and facilitate all value chain actors to adopt harmonized responsible sourcing practices, with the goal of improving livelihoods for an estimated 50,000 informal waste workers and securing the commitment of over 25 global brands, investors, recyclers and aggregators by 2025.

#### Focusing on **climate**, **equity and financing**, our

research will seek to create greater understanding of the most pressing barriers to the circular economy and support system change across the plastics value chain. In addition to research on topics such as ocean bound plastics, we plan to launch updated editions of the Plastic Lifecycle Assessment Calculator for the Environment and Society (PLACES) greenhouse gas calculator and the Plastics Circularity Investment Tracker, expanding the geographical coverage of the tools and adding new features.

As the urgency to tackle the global plastic pollution challenge accelerates, our core mission to build a thriving, inclusive circular economy is more important than ever. "2023 will be a momentous year in the fight against plastic pollution, with the international legally binding instrument on plastic pollution - agreed in principle by 175 countries - as the catalyst.

The agreement provides a pathway for countries to commit to national action plans and sends a strong signal to corporations that plastic waste must be reduced."



**Michael Sadowski** Executive Director The Circulate Initiative

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## Our work

The Circulate Initiative is a non-profit organization established in 2018 to solve the ocean plastic pollution challenge and build circular and equitable economies across emerging markets.

We deliver cutting-edge research and build high-impact programs and partnerships. Our goal is to drive collective action with stakeholders, including corporations, investors and policymakers.





## Research

Our experts develop research, analysis and tools that identify gaps and opportunities to address plastic pollution. These insights inform decision-making, helping stakeholders prioritize strategies, establish targets, scale impactful solutions and measure outcomes.

Our research projects cut across critical topics related to plastic pollution and form the foundation of our programs and partnerships, allowing us to bring robust, data-driven perspectives to our work.





## **Programs and Partnerships**

We work with global, regional and local partners from corporations and investors to governments and academia - to develop and implement new programs that address systemic barriers in the plastics circular economy.

In addition to driving work collectively, we advise key entities across the value chain to enable them to better understand and take action on plastic pollution.

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## Key results in 2022

## Driving capital towards circularity: The Plastic Circularity Investment Tracker

Up to <u>US\$995 billion</u> needs to be mobilized between 2021 and 2040 to ensure that circular supply chains can meet the global demand for plastics. The Circulate Initiative provides investors and policymakers with the tools and resources to fund solutions at scale by providing access to vital information, such as a visible investment or deal track record.

## **300+** decision-makers

**including government entities, investors and corporations,** reached through the Plastics Circularity Investment Tracker. Creating local solutions by filling data gaps: Mapping Local Plastic Recycling Supply Chains: Insights from Selected Cities in India, Indonesia, Thailand and Vietnam

Plastic pollution is a global problem with local solutions. The Circulate Initiative's work is driven by the need to fill data gaps and help corporations and policymakers make informed decisions and investments, monitor improvements and speed up the development of the circular economy.

## **12** wastesheds<sup>1</sup>

analyzed across India, Indonesia, Thailand and Vietnam for deeper insights into plastic waste management and recycling supply chains on a local level.

## The potential for impact in cities: Urban Ocean® program

EU

The Circulate Initiative focuses on accelerating the shift towards circular future cities. By ensuring circularity in urban development, it aims to tackle the root of plastic pollution and build climate change resilience.

## **9** global cities

**participating in Urban Ocean®**, a capacity-building program designed to support the development of circular strategies and solutions.

## Unlocking inclusive, circular supply chains: The Incubation Network

The inequity of vulnerable communities in the plastics value chain has become increasingly apparent and transparent. As part of our work with SecondMuse on the Incubation Network program, The Circulate Initiative works with the private sector, entrepreneurs, civil society organizations and local governments to improve inclusivity.

## 1,574 informal workers

**directly engaged** through The Incubation Network's Inclusive Markets programs.

<sup>1</sup>Wastesheds represent a geographical region that have a common solid waste disposal system, or designated by the governing institutions as an appropriate area within which to develop a common recycling program.

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## **Responsible Sourcing in the Plastic Waste and Recycling Sector: Examples of Inclusive Practices in India**

There are <u>15 to 20 million</u> informal waste workers, who are the backbone of plastics recycling globally. Informal workers account for roughly <u>58% of collected and recycled plastic waste</u>. Often unrecognized in the formal economy, informal waste workers, especially women, are frequently the most marginalized and unsupported members of society.

In India for example, nearly 60% of the plastic waste is collected for recycling and the plastic recycling networks rely heavily on the informal sector, yet their contributions often go unrecognized.

As brands around the world set targets to increase recycled plastic content in their packaging and products, there is greater scrutiny of not only the quality of the material procured, but also the fair and ethical treatment of informal waste workers.

Based on interviews with India-based portfolio companies of The Circulate Initiative's impact investment partner, Circulate Capital, **Responsible Sourcing in the Plastic Waste and Recycling Sector: Examples of Inclusive Practices in India** identifies where companies can advance equality and fair treatment.





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## Responsible Sourcing in the Plastic Waste and Recycling Sector: Examples of Inclusive Practices in India

(<u>...</u>

#### **Key outcome**

The insights report offers observations of what others are doing in this space, to provide a starting point for corporations to consider their own responsible sourcing practices in supply chains. Engage the informal sector as employees to improve their financial security and access to health benefits.

## Facilitate the issuance of legal documentation such as identity cards to allow access to government benefits and banking services.

## 

Digitization, such as QR-coded material to track waste flows, can enhance traceability and transparency across the supply chain, while improving the efficiency of operations. Abiding by mandatory global procurement standards, supplier agreements and third-party audits requires companies to enforce responsible sourcing principles within their supply chains.



## Findings from the Closing the Data Gap Challenge: Solid and Plastic Waste Assessment in Udaipur, India

The **Closing the Data Gap Challenge** is an initiative by The Circulate Initiative and the Alliance to End Plastic Waste to bridge knowledge gaps preventing action against plastic pollution in urban settings.

The Circulate Initiative assessed the state of waste generation and management in the Indian city of Udaipur between January and July 2022, gathering data on municipal solid waste and plastic waste generated and recycled, as well as the livelihoods and working conditions of informal waste workers.

Read the report



## Findings from the Closing the Data Gap Challenge: Solid and Plastic Waste Assessment in Udaipur, India

### **Research highlights**

- The total municipal solid waste (MSW) generated which includes household waste, household-similar waste and sweeping waste, amounts to 0.40kg per person per day.
- Plastic waste accounts for 16% of total MSW and 45% of total plastic waste is recycled.
- Informal workers are the primary collectors of recyclable plastic waste and essential participants in the value chain, but often work in unsafe conditions and and lack access to health insurance.

#### Read the report

## Key outcome

The findings formed the basis of a workshop with the city commissioner and municipal officials to explore actions for the local government to improve plastic waste management.

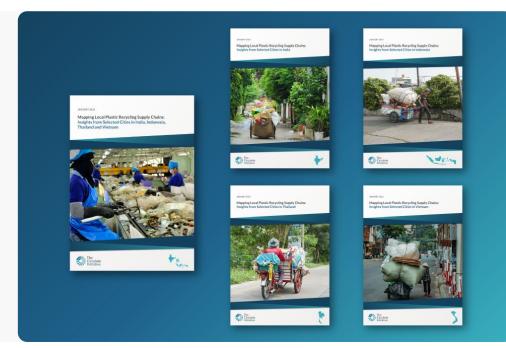
The Circulate Initiative identified behavior change campaigns for waste segregation at the household level, improving collection infrastructure, training on plastic types and possible low-cost recycling methods as possible actions.



## Mapping Local Plastic Recycling Supply Chains: Insights from Selected Cities in India, Indonesia, Thailand and Vietnam

In collaboration with Anthesis Group, The Circulate Initiative conducted a detailed assessment of 12 wastesheds across India, Indonesia, Thailand and Vietnam to map local plastic recycling supply chains and infrastructure.

The market studies provide insights into formal and informal waste management systems and infrastructure that are enabling or impeding progress and the influence of public and private sectors when it comes to implementing systemic change.



## Mapping Local Plastic Recycling Supply Chains: Insights from Selected Cities in India, Indonesia, Thailand and Vietnam

### India

Well-established informal plastic waste recycling system, which enables considerable amounts of recycling activity via a network of entrepreneurial relationships and micro-businesses.

#### Read the report

Read the report

#### Thailand

Established and growing national recycling infrastructure, operated by local and international players, but collection is still heavily reliant on the informal sector.

#### Indonesia

**Dynamic network of collection and sorting sites** in the form of waste banks and material recovery facilities. With increased funding to scale and strengthen implementation, wastesheds can scale diversion of plastic waste towards recycling.

#### Read the report

### Vietnam

Management of plastic waste is dominated by national and local waste management administrations. However, large amounts of recyclable waste is handled through craft villages. Households participate in informal waste collection, aggregation, pre-processing and recycling.



### Key outcome



Plastic recycling supply chains in South and Southeast Asia rely heavily on the informal sector, which is closely tied to local conditions, regulations, traditions and infrastructure. Improved understanding of local conditions and practices can help to determine the best interventions to improve existing systems and mitigate plastic pollution.



## **Plastics Circularity Investment Tracker**

Designed to improve the transparency of the plastics circularity sector's financing needs and capital flows, the **Plastics Circularity Investment Tracker** is the first tool of its kind to measure and characterize private investments directed to the plastics circular economy in emerging markets.

The database captures third-party investments made in plastics circularity solutions between January 2018 and September 2022 with over 400 deals across 38 countries.

Access the tracker

## **38** countries

## **400+** deals

## US\$ 4.1 billion in investments



## **Plastics Circularity Investment Tracker**

#### Key outcome



Over 300 users, made up of institutional and private investors, government bodies, corporates and academics accessed the Plastics Circularity Investment tracker in the first month of its launch. Decision-makers are now able to evaluate investment opportunities and have a better understanding of the growth potential of businesses in the plastics circular economy, which will help mobilize further capital into the sector. The accompanying insights report, **Monitoring Capital Flows to Tackle the Ocean Plastic Pollution Challenge**, analyzes investment trends in plastics circularity and identifies gaps where capital is most needed.

"The scale of the problem requires an all-hands-on-deck approach and one of our key objectives is to demonstrate the investment opportunity in plastics circularity to mobilize institutional capital.

The Plastics Circularity Investment Tracker supports our work and by offering greater transparency into capital flows, it is spotlighting the areas of opportunity and growth in the market."

Chief Impact Officer Circulate Capital "At WWF Plastic-Smart Cities, we recognize the importance of working with social innovators across Asia to identify, pilot and scale solutions to tackle the global plastic crisis. Plastics circularity is key in this equation.

Which is why this report by The Circulate Initiative is important in providing insights and guidance on where investments are most strategic or needed. A great read."

Plastic-Smart Cities Lead (Asia) World Wide Fund for Nature (WWF)



## **Plastics Circularity Investment Tracker**

#### **Research highlights**

- Approximately US\$850 million of private investment was made annually in plastics circularity across emerging economies, significantly lower than the estimated US\$27.5 billion a year needed to fund basic waste management infrastructure in these markets.
- Asia received 87%, or US\$3.5 billion, of total investments into plastics circularity across emerging markets between January 2018 and September 2022, reflecting the significance of the region's plastic pollution challenge.
- Most investments were in recycling and recovery companies (US\$3.6 billion / 88% of total funding), demonstrating the lack of investor interest and capital allocated to upstream innovations.
- 62% of deals in plastics circularity involved firms in early development, but they
  only accounted for 5.1% in investment value, highlighting the need for more patient
  capital to support both startups and their scale-up.



#### Read the report

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#### **PROGRAMS AND PARTNERSHIPS**

## **The Incubation Network**

The Incubation Network, a partnership between The Circulate Initiative and SecondMuse, sourced, supported and scaled solutions to combat plastic pollution. Part of a community of innovators, investors, partners and programs, The Incubation Network worked with industry players to strengthen entrepreneurial ecosystems, address plastic leakage and advance a circular economy.

The three-year program concluded in March 2023 and achieved what it set out to do - to move the needle on early-stage innovation in the plastics ecosystem and address regional challenges and opportunities.

Learn more about The Incubation Network's projects and their impact in the <u>Making Waves:</u> 2022 with <u>The Incubation Network</u> report.





**KEY OUTCOMES** 

**358** startups supported across all The Incubation Network programs

**40% female-led** out of all directly supported startups

## US\$ 2.8 million

**in funding** given to startups, ESO and Inclusive Markets projects

## US\$ 63 million

THURSDAY THE REAL PROPERTY OF STATEMENT

**additional capital raised** by startups after receiving support from The Incubation Network

## 148,000 metric

**tonnes** of plastic waste diverted by startups supported by The Incubation Network and Ocean Plastic Prevention Accelerator

## 1,300+ hours

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of mentorship from close to 200 industry experts to entrepreneurs in our network

Photo courtesy of The Incubation Network, an initiative by SecondMuse and The Circulate Initiative

## The Incubation Network

## **Inclusive Markets programs**

The Inclusive Markets programs catalyzed improvements for people who are socially and economically excluded while working in waste management and recycling in South and Southeast Asia.

Based on a specific theme, these programs supported a diverse set of like-minded organizations from across the region working in pursuit of a more inclusive and circular economy.

## I. Leakage & Livelihoods

What: To support organizations exploring different mechanisms or models for engaging informal waste communities, or driving change to create inclusive waste systems.

**Who:** Nine organizations across India, Vietnam, Thailand, Indonesia and the Philippines piloting models for informal sector integration.

How: Each project received funding and technical assistance, as well as access to industry connections, support around impact measurement and design of pathways for next steps.

#### CASE STUDY

## Scaling social and environmental impact

Leakage & Livelihoods supported Saahas Zero Waste, an India-based socio-environmental enterprise, to scale the operational capacity of a dry waste collection center and improve the livelihoods of its employees, consisting mostly of migrant women from a self-help group. Dry waste management and plastics recovered grew by 47% and 76% respectively, while staff at the facility saw a 24% increase in income.



## **The Incubation Network**

## II. Equality in Plastics Circularity

What: To support innovative solutions advancing gender equality within plastic waste management and recycling systems.

**Who:** Five entrepreneurial solutions and three research and policy advocacy projects, led by civil society organizations and social enterprises in India, the Philippines and Vietnam.

**How:** Deployed support of more than US\$220,000, as well as technical and other assistance, to the cohort of projects which ran for 6 to 12 months from November 2021.

## 92%

of waste workers reported an increase in access to dignified work

85% reported an increase in access to benefits and support services

**79%** reported an **increase in livelihood opportunities** 

87%

reported an improvement in workplace health and safety conditions or resources



## Directly reached 1,574 informal workers, 73% of whom were women

#### INCLUSIVE MARKETS PROGRAMS JOINT OUTCOME

## **The Incubation Network**

## The Single-Use-Plastics Challenge

**What:** Pilot viable solutions to reduce single-use plastic packaging within South and Southeast Asia's food service industry.

**Who:** Worked with eight entrepreneur support organizations to strengthen and connect 76 startups to 60 food service businesses across India, Indonesia, the Philippines, Thailand and Vietnam.

**How:** Deployed project funding of over US\$500,000 and provided access to dedicated mentors and technical assistance.

#### OUTCOME:

**935 kg** of plastics were avoided across the pilots (estimated)



#### CASE STUD

## Accelerating market adoption of circular business models

EveGrocer, a zero-waste online marketplace based in the Philippines, piloted reusable rice sacks with Bizu Patisserie, a chain of cafés in Manila. By packing raw rice at source into reusable sacks in the volumes required by the kitchens, which were then collected back for subsequent uses, they were able to eliminate single-use plastic bags in the online grocery supply chain.

## Thailand Waste Management & Recycling Academy

What: Educate, support and empower local entrepreneurs working on plastic leakage prevention solutions in Thailand.

**Who:** Ten early-stage entrepreneurs working on plastic waste leakage prevention solutions in Thailand.

**How:** Startups underwent a training program to prototype their products and solutions and received mentoring from experienced entrepreneurs and experts. Selected participants in the second phase received extended technical assistance and mentorship to determine proof of concept.

OUTCOME:

## 80%

of teams reported significant improvement in their startups' progress after phase one of the program.

## Scale 100(t)

What: Accelerator program designed to increase the waste processing capacity of participants by at least an additional 100 metric tonnes annually.

**Who:** Three plastic waste management startups with operations based in South and Southeast Asia.

**How:** Funding of over US\$350,000 was provided to participants which underwent a customized growth program specific to their identified milestone and project proposals.

### OUTCOME:

## 100%

By hitting the target of increasing their annual processing capacity by at least 100 tonnes, **all participants successfully contributed to reducing plastic pollution.** 

## Urban Ocean®

Jointly implemented by Resilient Cities Network, Ocean Conservancy and The Circulate Initiative, Urban Ocean® is a capacity-building and accelerator program to end ocean plastic pollution and build more resilient cities. It champions circular economy principles, builds awareness of ocean plastic, assesses waste management systems and supports cities to develop projects that address the interrelated challenges of ocean plastics and urban resilience.

In 2022. Urban Ocean® marked the conclusion of its first cohort of cities comprising Can Tho (Vietnam), Melaka (Malaysia), Semarang (Indonesia), Pune (India) and Panama City (Panama) with an inaugural Accelerator Summit. It created a platform for cities to connect with and pitch to potential funding partners. To maximize outreach and engagement, a separate in-person event was hosted in Singapore to attract regional funders and partnered with Temasek Foundation to host a Circularity Networking Session.



Also in 2022, the Urban Ocean® program scaled to four more cities in Asia and Latin America. namely Chennai, Mumbai, Surat (India) and Santiago (Chile).



#### **Key outcome**

:EU

• Over 40 opportunities were identified across the first cohort and evaluated for further development.

- 25 partners and 28 city officials participated in the Accelerator Summit.
- 13 discussions were facilitated between cities and partners after the Accelerator Summit to continue the development of projects.



## **Global Plastic Action Partnership**

The World Economic Forum's Global Plastic Action Partnership (GPAP) and The Circulate Initiative developed a new edition of **'Unlocking the Plastics Circular Economy: Case Studies on investment',** which demonstrates how private capital can unlock opportunities in the circular economy and the critical role of policy in stimulating investor interest.

The Circulate Initiative spotlighted ten case studies, ranging from examples of corporate action to mobilize institutional capital into Mexico's recycling infrastructure and the use of blended finance to scale a homegrown recycling company in Indonesia, to enabling policies that accelerated the growth of Asia's first circular economy marketplace.

#### A powerful blueprint for action, these case studies demonstrate:

- How capital is being mobilized for new circular business models to create financial and environmental impact.
- Barriers to investment in the plastic circular economy and how policy can stimulate investor interest.
- The need for brands and strategic investors in the plastics value chain to boost demand and support the transition to a circular economy.

Read the case studies

"Investment into circular plastics should be seen as a mechanism to address climate change. If action on either interconnected challenge is to happen on time and at scale, policymakers, private investors and the holders of public capital must work together to bridge the financing gap that stands in our way."

Joint opinion article by The Circulate Initiative's Senior Advisor, Ellen Martin, and former Director of GPAP, Kristin Hughes





## Delterra

'Honing the Habit: Four Insights on Spreading Recycling Behavior', the second in The Circulate Initiative's joint research series with environmental non-profit Delterra, aims to demonstrate the potential of behavior change to improve the economics of recycling. Based on a three-year investigation by Delterra's Rethinking Recycling initiative across Indonesia and Argentina, the report provides a roadmap for promoting pro-recycling behavior change in emerging economies.

'Honing the Habit' offers four critical insights on the link between promoting behavior change and recycling participation - from the use of emotionally rooted messaging to the importance of reliable recycling infrastructure and services.

Read the report

"We can dramatically increase the effectiveness of behavior change initiatives and recover more valuable materials for a circular economy by taking a critical eye on the specific needs of a community, tailoring behavior change interventions, and measuring the results."

The Circulate Initiative's Senior Advisor, Ellen Martin speaking to *Tech for Impact*, June 2022





#### PROGRAMS AND PARTNERSHIPS

## Penang Green Council and Resource Recycling Systems

In September 2022, the Penang Green Council (PGC) and Resource Recycling Systems (RRS) **launched a study to establish an economically and environmentally-preferred pathway for citizens to recycle film packaging in Penang.** The study will also involve local stakeholders to develop a pilot implementation plan for the collection of film packaging across 10,000 households.

With financial support from The Circulate Initiative, Fonterra, Thong Guan Industries Berhad and FFM Berhad, the PGC is leading local coordination and outreach while RRS takes charge of recycling system evaluation and pilot planning.

Results from the study are due in 2023.



"By partnering with PGC, RRS, Fonterra, Thong Guan Industries and, FFM Berhad for the Penang Feasibility Study, we have the opportunity to drive change and enhance the State's collection and recycling systems for the benefit of the economy, environment and local communities. We can collectively demonstrate the power of collaboration and create a blueprint for preventing plastic pollution."

The Circulate Initiative's Research Director, Umesh Madhavan speaking at the study's launch event

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#### **LEARNING RESOURCES**

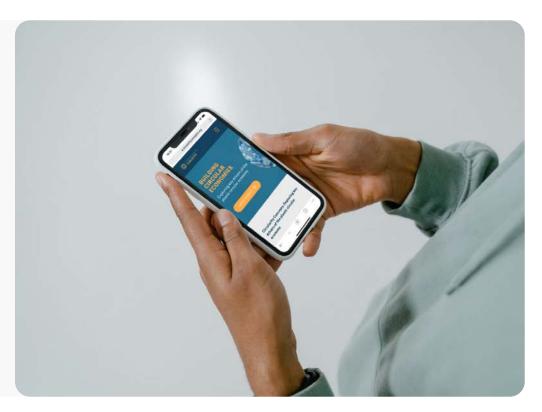
## **Circularity Concepts: Exploring key drivers of the plastic circular economy**

The Circulate Initiative and SecondMuse collaborated with RRS Asia to develop a five-part learning series to bolster knowledge of new and emerging issues in the plastics circular economy including policy, technology and the state of infrastructure.

The goal of **Circularity Concepts: Exploring Key Drivers of the Plastic Circular Economy**, was to examine the current state of each topic, discuss important related issues, provide resources and answer key questions from the community.

Explore now





#### LEARNING RESOURCES

## **Circularity Concepts: Exploring key drivers of the plastic circular economy**

#### MODULE 1

Setting the stage for a successful circular economy: Extended Policy Responsibility (EPR) and policy developments in Asia

Key questions addressed:

- What are the policies available to support the development of economically sustainable recycling systems and infrastructure?
- How is an EPR policy roadmap developed and what factors must be in place to ensure successful implementation?
- What are the challenges of EPR in Asia?

View module

#### MODULE 2

Bioplastics and alternative materials: Evaluating the role of bioplastics in the circular economy

#### Key questions addressed:

- What are the different types of bioplastics and how sustainable are they?
- What are the conditions to enable biodegradability?
- How is the labeling, production and use of bioplastics being governed?

#### MODULE 3

Advanced Recycling Technologies (ART) and a circular economy for plastics

#### ley questions addressed:

- What are ARTs and how do they differ from mechanical recycling?
- What are the pros and cons of scaling ARTs?
- What are the global tailwinds for ARTs?

#### MODULE 4

Evaluating the opportunities and benefits of reuse and refill in a circular economy

#### Key questions addressed:

- What is behind the growth of reuse and refill?
- Where are the opportunities for reuse and refill in the packaging supply chain?
- How can corporations and investors assess the sustainable viability of a model?

#### MODULE 5

Plastic credits: Evaluating the opportunities and benefits of plastic credits in a circular economy

#### Key questions addressed:

- How do plastic credits work and do they benefit the environment?
- What are the current concerns over plastic credit systems?
- How can corporations optimize the impact of plastic credits to improve recycling?

#### View module

View module

View module

View module

The Circulate Initiative participates in industry events and shares insights to raise awareness of the urgency in building an inclusive, circular economy for plastics.

Through active involvement in critical conversations, The Circulate Initiative ensures it stays connected to other industry experts and to continuously expand its knowledge.

## Media coverage

"With smart policy, a dynamic entrepreneurial community, and a genuine desire to bring about sustainable change, they [Asian countries like India and Indonesia] have boldly embraced circular value chains, demonstrating their value and providing a powerful blueprint to other markets."

Eco-Business, Asia can create a blueprint for plastic circularity







DRIVING CAPITAL TOWARDS CIRCULARITY

"Policymakers also have the opportunity to facilitate more private investments into the circular economy by introducing financing mechanisms that reduce or share risk."

The Business Times, <u>Nature-based solutions could yield</u> US\$4.3 trillion in economic value by 2030

## THE BUSINESS TIMES

"Supported by a strong global focus on ESG investing and better impact measurement tools, a heightened awareness of circular solutions for plastics will start to change mindsets and attract interest from mainstream investors who can provide capital to really fast-track the transition towards circularity."

GreenBiz, 5 expectations for the circular economy in the year ahead





#### CREATING LOCAL SOLUTIONS BY FILLING DATA GAPS



UNLOCKING INCLUSIVE, CIRCULAR SUPPLY CHAINS "Data and insights are not only essential in helping us change [recycling] behavior, they also demonstrate that recycling as an industry is worth the investment."

- Tech for Impact, <u>We need to move away from</u> <u>cut-and-paste approaches to recycling</u>



"As the demand for recycled plastics continues to rise, the role of informal waste workers, who are at the frontline of waste recovery, will similarly grow in importance. The ecosystem needs to address the fundamental issues relating to their welfare and treatment, in order to ensure that supply chains are held to the highest standards."

New Straits Times, New sustainability commitments an opportunity to uplift Malaysia's informal sector



"To overcome these obstacles (to positive recycling habits), first and foremost, more thought must be put into uncovering why individuals in each community would be motivated to recycle and tailor campaigns to speak to this unique context."

The Jakarta Post, <u>Unpacking recycling behaviors at the</u> root of lasting solutions

## **TheJakartaPost**

"It is also important for businesses to consider the social aspect of recycling. In developing countries, many people rely on selling recyclable materials to earn an income ... A lot of that recovery is still being done by informal or unorganized workers. We want to make sure that there are jobs created and that people can still build livelihoods within the circular economy."

The Edge Markets, <u>Futureproof: Tackling the low</u> recycling rate and circular economy for plastics



## **Events**



25 - 26 January

#### Ocean Plastic Virtual Summit 2022

The Circulate Initiative's Research Director, Umesh Madhavan, presented on 'Incubation and Insights to Drive Action on Plastic Pollution', providing an overview of the work being done to tackle the ocean plastic crisis, alongside speakers from Asia, Europe and the Americas. 29 March – 1 April

#### Impact Investment Summit Asia Pacific

The Circulate Initiative's Director of Operations and Strategy, Khunapong Khunaraksa, was part of the 'The Promises of a Blue Economy: Insights from Research, Development and Ocean Thought Leaders' panel to discuss the latest research, development and opportunities in the ocean economy – to inspire and encourage action among investors.



5 April

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#### Urban Ocean® Accelerator Summit

2022 marked the first virtual accelerator summit by Urban Ocean® to bring urban and ocean practitioners closer together. The Circulate Initiative's Senior Advisor. Ellen Martin, alongside representatives from Ocean Conservancy and Resilient Cities Network explored the opportunities for investing in public-private partnerships to fight plastic waste in cities.

#### Preserving the Value of Our Ocean by Preventing Plastic Waste

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19 April

Ellen Martin joined the webinar hosted by GreenBiz Group to discuss the harmful effects of plastic waste on the world's oceans and economy, the ongoing projects and partnerships addressing this challenge and the opportunities for the wider community to further advance circularity.

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16 June

#### The Incubation Network: Thailand Networking Event

This in-person stakeholder engagement and networking event in Bangkok was hosted to enable multi-stakeholder engagement and connection to encourage potential partnership and business opportunities and share knowledge on kev topics and trends relevant to the Thailand plastics circular economy. The Circulate Initiative's Research Analyst Juline Lew presented a session on Extended Producer Responsibility.

27 June

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#### World Urban Forum (WUF)

Umesh Madhavan presented as part of a special session on 'Urban Data and Circular Economy' at the WUF, which brought together experts and industry leaders, including representatives from the Organisation for Economic Co-operation and Development, the Stockholm Environment Institute and Edge Environment, Umesh highlighted the need for investments in sustainable urban development to shift systems to circularity.



## **Events**



28 - 29 June

#### 2022 United Nations Ocean Conference-(UNOC)

The Circulate Initiative co-organized a side event at the UNOC, bringing together diverse voices from The World Bank Group, Ocean Conservancy, Circulate Capital and European Investment Bank for a panel discussion titled 'Addressing Ocean Plastic Pollution and Advancing the Circular Economy: The Case for Innovative Financial Solutions'.



12 – 14 September

#### Circular Solutions Festival

The Circulate Initiative's Research Analyst, Nurul Aisyah Suwandi, joined PXP Sustainability to present at a session titled 'Impact and Environment Measurements of Upstream Solutions in The Food & Beverage Industry' to discuss single-use plastics in the F&B industry and shared the methodology behind assessing the regional impact of upstream solutions.

#### 18 – 23 September

#### 7th International Marine Debris Conference (7IMDC)

The Circulate Initiative and The World Bank Group jointly hosted a panel discussion moderated by Ellen Martin. Speakers explored the challenges and opportunities for investment and policy to support the region's plastic innovation ecosystem.



Umesh Madhavan also presented at a session hosted by Resilient Cities Network and Ocean Conservancy, spotlighting the Urban Ocean® program.

#### 21 October

#### Eco-Business Lunch & Learn: Circular Innovations for Managing Asia's Waste Problem

Umesh Madhavan joined the Lunch & Learn session as a guest speaker to unpack Asia's plastic pollution problem and market gaps hindering progress towards circularity.

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#### 8 December

#### Charting the Investment Opportunity in Plastics Circularity

In a joint webinar with GPAP, speakers from both public and private sectors came together to discuss the emerging investment opportunities in plastics circularity as well as enabling factors - such as a supportive regulatory environment - that must be in place to unlock capital.



## Our people

The Circulate Initiative's team comprises a diverse group of experts across Asia-Pacific and the United States.

We have years of experience and knowledge of the plastics circular economy, ranging from impact investing and measurement to data and analytics and implementation of programs to address plastic waste on-the-ground in emerging markets.

The latest additions to our team are Annerieke Douma and Madhushree Narayan, as Director of Programs and Responsible Sourcing Program Manager respectively. Their strong experience in sustainability and circular solutions will accelerate our efforts to build an inclusive, circular economy for plastics across South and Southeast Asia.



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## **Audited financial summary**

Circulate Initiative Inc. | Statement of Functional Expenses For the year ended December 31, 2022

	Program Services					Supporting Services		Total	
	Amplification	Incubation Network	Monitoring and Evaluation	Other Related Programs	Total Program Services	Management and General	Fundraising	2022	2021
Consulting	\$66,019	\$ 2,035,916	\$ 445,446	\$ 9,824	\$ 2,557,205	\$ 136,709	-	\$2,693,914	\$ 2,992,891
Program contractors	\$21,880	-	\$ 586,628	-	\$ 608,508	-	\$ 3,090	\$ 611,598	\$ 63,888
Professional fees	\$ 19,379	-	\$ 51,443	-	\$ 70,822	\$ 156,485	-	\$ 227,307	\$ 180,475
Grants to others	-	-	\$ 18,000	\$ 99,900	\$ 117,900	-	-	\$ 117,900	\$ 375,000
Marketing and advertising	\$66,342	-	\$ 200	\$ 5,800	\$73,342	-	-	\$ 72,342	\$ 136,950
Dues and subscriptions	-	-	\$ 24,363	-	\$ 24,363	\$ 2,982	\$7,722	\$ 35,067	\$ 4,778
Travel, meals & entertainment	\$ 2,117	-	\$ 15,690	\$ 243	\$ 18,050	\$ 11,486	\$ 2,077	\$ 31,613	\$ 22,288
Insurance	-	-	\$ 445	-	\$ 445	\$ 10,838	-	\$ 11,283	\$ 8,988
Information technology	\$ 1,613	-	\$ 2,524	-	\$ 4,137	\$ 147	-	\$ 4,284	\$ 3,469
Occupancy	-	-	\$ 509	-	\$ 509	\$ 2,626	-	\$ 3,135	\$ 3,206
Conferences & meetings	-	-	\$ 1,153	-	\$ 1,153	\$ 923	-	\$ 2,076	-
Office expenses	\$ 32	-	\$ 23	-	\$ 55	\$ 485	-	\$ 540	\$ 2,163
Total expenses	\$ 177,382	\$ 2,035,916	\$ 1,170,500	\$ 125,116	\$ 3,508,914	\$ 429,677	\$ 12,889	\$ 3,951,480	\$ 3,958,123

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#### PARTNERS AND COLLABORATORS

## Partners and collaborators

Our work is strengthened by our network of global, regional and local collaborators. Together, we are in a unique position to form distinct points of view on the challenges and solutions related to ocean plastic and drive collective action.

We would like to thank the following organizations for their ongoing commitment and support.

#### OUR FINANCIAL SUPPORTERS





OUR COLLABORATORS



C Kimberly-Clark

PEPSICO

THE LAWRENCE FOUNDATION



#### PARTNERS AND COLLABORATORS

## Impact Metrics Working Group

To better understand the impact of solutions to address plastic leakage,

The Circulate Initiative convened a diverse group of experts in an Impact Metrics Working Group that identifies and addresses gaps in data, metrics and methods.

We thank the following individuals for their support for their participation in IMWG convenings in 2022. Courtney Thompson, Morgan Stanley Daniel Habesland, World Wildlife Fund (WWF) US Dominic Charles, Minderoo Foundation Ellie Moss, Encourage Capital Erin Murphy, Arizona State University Federico di Penta. Delterra Felipe Victoria, Ocean Conservancy Grant Collins, Charlotte Square Capital Haley Hattendorf, Morgan Stanley Jenna R Jambeck, University of Georgia Joao Sousa, The International Union for the Conservation of Nature (IUCN) Karin Merle, Independent Expert Keri Browder, Prime Coalition Sabine Strnad, Henkel Set Oya, USAID Clean Cities Blue Ocean Shilpi Kapur, Environmental Management Centre (EMC) Sonia Dias, Women in Informal Employment: Globalizing and Organizing (WIEGO) Suneel Pandey, The Energy and Resources Institute (TERI) Tam Thanh Nguyen, Alliance to End Plastic Waste Taylor Cass Talbott, Women in Informal Employment: Globalizing and Organizing (WIEGO)

## **2022 Annual Report** The Circulate Initiative

