

4. PUBLIC-PRIVATE AND PRIVATE-DOMINATED PARTNERSHIPS

A number of initiatives have developed recently in the ASEAN+3, at regional level. A selection of seven visible public-private and private-dominated partnerships and initiatives are set out below.

Of note, there may be other plastic industry groups in the region that could be comparable to the following industry groups in Europe:

- PlasticsEurope, an association of plastics manufacturers. Available: <https://www.plasticseurope.org/en/about-us/who-we-are>.
- European Plastics Converters (EuPC), a professional representative body of plastics converters. Available: <https://www.plasticsconverters.eu/>.
- European Plastics Recyclers (PRE), an organisation representing plastics recyclers. Available: <https://www.plasticsrecyclers.eu/>.
- European Plastics and Rubber Machinery (EUROMAP), an organisation representing the plastics and rubber machinery industry. Available: <http://www.euromap.org/en/>.

These entities also participate in initiatives to prevent pollution from marine plastics. They can provide some interesting ideas:

- Operation Clean Sweep (<http://www.opcleansweep.eu/>);
- Marine Litter Solutions (<https://www.marinelittersolutions.com/>); and
- Zero Plastics to landfill (<https://www.plasticseurope.org/en/focus-areas/circular-economy/zero-plastics-landfill>).

Further investigation with industry entities within the region would be useful to complete the picture of the key bodies and initiatives in the private sector.

4.1 GA Circular

Summary of role: *GA circular is a private initiative that provides services to companies, investors, global foundations and government agencies in reaching a circular economy in Asia.*

Summary of work: *The work of GA circular includes particular expertise in post-consumer packaging and food waste, through providing services in research and data analytics, strategy and policy advisory, technical assistance and stakeholder engagements to its clients.*

Keywords/research fields: *GA circular; circular economy; post-consumer packaging; food waste; research and data analytics; strategy and policy advisory, technical assistance; stakeholder engagements; EPR; MRFs*

4.1.1 Background and aim

GA Circular, based in Singapore, is a private initiative founded in 2011 with the vision of developing a circular economy in Asia. It has a particular expertise in post-consumer packaging and food waste. GA Circular's purpose is to enable companies, investors, global foundations and government agencies to unlock business opportunities from fast-growing streams of food and packaging waste.

GA Circular proposes four types of services as follows:

- Research and data analytics;
- Strategy and policy advisory;
- Technical assistance; and
- Stakeholder engagement.

Available: <https://www.gacircular.com/services/>.

Its clients include private partners such as the Coca-Cola Company, DANONE, Dole, Borouge, Amcor as well as the European Commission.

GA Circular's statistics indicate that, to date, it has organized 4,672 stakeholder meetings, 64 events, 462 waste audits, and has produced six research reports.

4.1.2 Projects

Examples of projects undertaken by GA Circular for its clients include:

- For the Coca-Cola Company: studying EPR systems in developing markets around the world, researching the existing conditions in the six large ASEAN markets that would influence EPR implementation (i.e. Indonesia, Philippines, Vietnam, Thailand, Myanmar and Malaysia), and structuring implementation plans for industry-led EPR systems in these countries. Phase I of the project ended with results published in July 2018. Phase II is currently ongoing. Available: https://www.gacircular.com/portfolio_page/coca-cola-asean/.
- For Dole Foods: studying the post-consumer waste landscape in the Philippines and creating one of the country's first recycling pilot programmes in schools, where Materials Recycling Facilities (MRFs) were set up and educational workshops were organised to teach children about the need to segregate their waste. The project was conducted between September 2016 to December 2018. Available: https://www.gacircular.com/portfolio_page/dole-foods/.
- For Nestlé Waters: mapping in detail the existing waste management value chain in Ho Chi Minh City and Hanoi, Vietnam in June 2018. Available: https://www.gacircular.com/portfolio_page/nestle-waters/
- For Borouge: conducting in-depth research, interviews with various stakeholders and technology providers on the technical and financial aspects of available technologies for

municipal waste management and technological solutions for recycling in Indonesia, 2018. Available https://www.gacircular.com/portfolio_page/borouge/.

- With National Geographic Live: developing a four-year partnership since January 2018 for National Geographic Society and Singapore's Nanyang Technological University (NTU) to bring leading National Geographic explorers working at the cutting-edge of human knowledge across various fields such as Circular Economy, Science and Engineering to NTU. Available: https://www.gacircular.com/portfolio_page/national-geographic-packaging-waste/.
- For Amcor: analysing the challenges and opportunities for collection and circularity of post-consumer flexible packaging in India, Indonesia and the Philippines in November 2017. Available: https://www.gacircular.com/portfolio_page/amcor-flexibles/.

4.1.3 Reports

Reports that GA Circular contributed to include:

- 'The Role of Gender in Waste Management: Gender Perspectives on Waste in India, Indonesia, the Philippines and Vietnam', June 2019. As part of the project 'Addressing Marine Plastics: A Systemic Approach' (see [Part 1, Section 6.1.1.3](#) and [Part 1, Section 6.2.2.3](#)), the report applied gender analysis in the field of waste management in developing countries such as India, Indonesia, the Philippines and Vietnam. Available: <https://oceanconservancy.org/wp-content/uploads/2019/06/The-Role-of-Gender-in-Waste-Management.pdf>.
- 'Full Circle: Accelerating the Circular Economy for Post-Consumer PET Bottles in Southeast Asia', 2019. The report highlighted the current realities of PET bottles collection and provided a blueprint for the circular economy of PET bottles in the six biggest Southeast Asian countries (i.e. Indonesia, the Philippines, Vietnam, Thailand, Myanmar and Malaysia). Available: <https://drive.google.com/file/d/1Lwel36tvAdad7ph6b4hHnL3C2nJ9rqmm/view>.
- 'The Role of Packaging Regulations and Standards in Driving the Circular Economy' 2019. The report identified the role that policy interventions play in addressing the growing environmental challenges posed by packaging and packaging waste. It also explored the regulatory landscape in each of the 10 Southeast Asian countries, and compared them to policies elsewhere, such as in the EU and Japan. Available: <https://www.gacircular.com/unep-packaging-regulations-and-standards/>.
- 'Towards Circularity of Post-Consumer Flexible Packaging in Asia', 2017. The report analysed the challenges and opportunities for collection and circularity of post-consumer flexible packaging in Asia. Available: <https://drive.google.com/file/d/142gDQUY7IDirCXhzYjdNylaL4ODc7bXf/view>.

4.2 Circulate Capital

Summary of role: *Circulate Capital is an investment management firm based in New York dedicated to financing companies, projects and infrastructures that prevent the flow of plastic waste to the world's ocean and advance the circular economy.*

Summary of work: *The work of Circulate Capital includes the development of financing mechanisms for solutions to the problem of ocean plastic pollution in South and Southeast Asia.*

Keywords/research fields: *Circulate Capital; financing mechanisms; ocean plastic pollution; flow of plastic waste; circular economy; waste stream; solid waste management; capture and reuse; USAID partnership; Circulate Capital Ocean Fund; reports; Handbook for Action: Investing on reduce plastic pollution in South & Southeast Asia*

4.2.1 Background and aim

Circulate Capital is based in New York, USA and was founded in 2018. To note, Rob Kaplan, the CEO and founder of Circulate Capital, is based in Singapore. Circulate Capital defines itself as an “impact-focused investment management firm dedicated to financing companies, projects, and infrastructure that prevent the flow of plastic waste to the oceans and aid in advancing the circular economy”. Its work includes the development of financing mechanisms for solutions to the problem of ocean plastic pollution in South and Southeast Asia (US\$100+ million announced). Targeted countries in Southeast Asia include Indonesia, Thailand, the Philippines and Vietnam.

The mission of Circulate Capital is three-fold as follows:

- Reducing plastic in the waste streams;
- Improving solid waste management; and
- Increasing capture and reuse.

Circulate Capital has partnerships with Closed Loop Partners, the Ocean Conservancy and companies including 3M, the Coca-Cola Company, Kimberley-Clark, Dow, Pepsi-Co and P&G. One of the investors in Circulate Capital is the Alliance to End Plastic Waste (AEPW) (see [Part 1, Section 6.4.7](#) below). AEPW members include private sector companies that make, use, sell, process, collect and recycle plastic products.

4.2.2 Activities

In June 2019, Circulate Capital announced a blended finance partnership with the U.S. Agency for International Development (USAID) to combat ocean plastic pollution. Through this new agreement, USAID is expected to provide up to US\$35 million, 50% loan-portfolio guarantee through the Development Credit Authority to incentivise private capital investment and new business development

in the recycling value chain in South and Southeast Asia. Available:

https://docs.wixstatic.com/ugd/77554d_22da52669b3a45b0a042c1b9e8d8add6.pdf.

In 4 December 2019, Circulate Capital created an investment fund called the 'Circulate Capital Ocean Fund' and aimed at tackling Asia's ocean plastic crisis. The fund investors include Pepsi-Co, P&G, Dow, DANONE, Unilever, the Coca-Cola Company and Chevron Phillips Chemical Company. The debut investment was at US\$106 million and it is targeting to reach US\$150 million. Available:

<https://www.dealstreetasia.com/stories/circulate-capital-ocean-plastic-fund-165335/>.

4.2.3 Reports

In March 2019, the Circulate Capital published a handbook termed 'Handbook for Action: Investing on reduce plastic pollution in South & Southeast Asia'. Available: https://docs.wixstatic.com/ugd/77554d_3bb19c2c7b75435f8d2817edfc15a28f.pdf.

4.3 The Circulate Initiative

Summary of role: *The Circulate Initiative is a U.S. registered initiative non-profit organisation founded in 2019 with support from Circulate Capital to help address the ocean plastic issue through education, support and finance of innovation in waste management and incubation of investable businesses that can bring those innovations to market*

Summary of work: *The Circulate Initiative has three core activities: incubate, measure and amplify.*

Keywords/research fields: *Circulate Initiative; innovations; waste management; incubate; measure; amplify; The Incubation Network (TIN); Ocean Plastic Prevention Accelerator; Plastic Data Challenge*

4.3.1 Background and aim

The Circulate Initiative is a U.S. registered non-profit organisation founded in 2019 with support from Circulate Capital. The aim of the initiative is to help achieve the broader mission of addressing the ocean plastic crisis through education, support and finance of innovations in waste management and incubation of investable businesses that can bring those innovations to market.

The initiative has three core activities as follows:

- *Incubate:* increasing the number and quality of innovators in the waste and recycling sector and creating the conditions they need to succeed through The Incubation Network (TIN) developed in partnership with Second Muse

- *Measure*: developing open-source metrics for all investors to track environmental and social impacts
- *Amplify*: sharing success stories and impacts of entrepreneurs, leaders and organisations to encourage replication and scaling

Available: <https://www.thecirculateinitiative.org/>.

4.3.2 Activity – The Incubation Network (TIN)

The Incubation Network (TIN) is the Circulate Initiative’s flagship programme to help strengthen the circular economy by developing, promoting and incubating technologies, business models and entrepreneurs that prevent ocean plastic pollution in South and Southeast Asia, and building an enabling environment for its success.

TIN aims to create a connected network of innovators, investors, civil society organisations, and government leaders across South and Southeast Asia. In addition to Circulate Initiative, TIN also receives support from Second Muse, the U.S State Department and corporate partners such as Unilever, P&G, the Coca-Cola Company and DANONE.

TIN is currently undertaking two initiatives in Southeast Asia:

- ‘Ocean Plastic Prevention Accelerator’: managed jointly by the Circulate Initiative and Second Muse with funding from Australia’s Department of Foreign Affairs and Trade to create a collaborative network for innovative solutions in local waste management systems and the recycling sector in Surabaya, Indonesia. Available: <https://oppa.id/en/>.
- ‘Plastic Data Challenge’: an invitation to innovators worldwide (including academic institutions, start-ups, companies, and data scientists) to submit their innovative data solutions that would advance plastic waste management and the circular economy in South and Southeast Asia. Available: <https://www.incubationnetwork.com/plastics-data-challenge>.

More details available at: <https://www.incubationnetwork.com/about>.

4.4 Food Industry Asia (FIA)

Summary of role: Food Industry Asia (FIA) founded in 2010, is the representative of the food industry in Asia. Its members include suppliers, manufacturers and retailers of food.

Summary of work: FIA deals with plastic under the framework of sustainable packaging. It released a study in 2018 on tackling plastic and packaging waste in Southeast Asia.

Keywords/research fields: Food Industry Asia (FIA); F&B; background and aim; Sustainable Packaging; plastic waste; packaging waste; Tackling Plastic Waste in Asia

4.4.1 Background and aim

Food Industry Asia (FIA), based in Singapore, was founded in July 2010 by a group of leading F&B companies to enable major food manufacturers to speak with one voice in Asia. Its members are suppliers, manufacturers and retailers of food (Amcor, the Coca-Cola Company, DANONE, McDonalds, Ferrero, Indofood, etc.). Available: <https://foodindustry.asia/about>.

4.4.2 Activity – Sustainable Packaging

FIA deals with plastic waste under its ‘Sustainable Packaging’ pillar. In 2018, FIA released ‘Sustainable Packaging – Tackling Plastic Waste in Asia’, a study on tackling plastic and packaging waste in Southeast Asia, which focused on Indonesia, the Philippines, Vietnam and Thailand.

The report identified 31 potential levers to support sustainable packaging in four areas as follows:

- Reducing inputs into the system;
- Enhancing collection rates for after-use plastics;
- Plugging leakage in post collection; and
- Creating value for waste use.

Available: <https://foodindustry.asia/documentdownload.axd?documentresourceid=30711>.

4.5 Ocean Plastics Charter

Summary of role: *The Ocean Plastics Charter was approved by five G7 states (Canada, France, Germany, Italy and the UK) and the EU in June 2018 to demonstrate commitments to take measures to address the plastic problem. It lays the groundwork for reuse and recycling.*

Summary of role: *The Charter's Action Plan has five categories of actions, including coastal and shoreline action, which focuses on outreach and education.*

Keywords/research fields: *Ocean Plastics Charter; action plan; Ocean Plastics Charter's Action Plan*

4.5.1 Background and aim

The Ocean Plastics Charter was agreed to by five G7 states (i.e. Canada, France, Germany, Italy and the UK) and the EU in June 2018. It has also been endorsed by 22 states and 64 businesses and organisations, including a number of large corporations such as the Coca-Cola Company, Unilever and Nestlé. Southeast Asia is an important market for some of these companies. With the UK and the EU being important donors to Southeast Asia, the work of this initiative is expected to be aligned with the projects that they would be funding. Available: <https://www.canada.ca/en/environment-climate-change/services/managing-reducing-waste/international-commitments/ocean-plastics-charter.html>.

4.5.2 Action plan

The Charter includes an action plan with five categories of action as follows:

- Sustainable design, production and after-use markets;
- Collection, management and other systems and infrastructure;
- Sustainable lifestyles and education;
- Research, innovation and new technologies; and
- Coastal and shoreline action.

Of these, the coastal and shoreline action, which is focused on education and outreach, is relevant to marine plastic. It also aims to accelerate the implementation of the 2015 G7 Leaders' Action Plan to Combat Marine Litter through the Regional Seas programmes. This includes adopting initiatives led by regional fisheries management organisations (RFMOs) where appropriate, and targeted investments for clean-up activities that prove to be environmentally sound in global hotspots and priority areas, particularly on ALDFG and wastes generated and collected by fishery activities. Available: https://international.gc.ca/world-monde/assets/pdfs/international_relations_relations_internationales/g7/2018-06-09-healthy_oceans-sante_oceans-annex-en.pdf.

Following the establishment of the Charter, Canada, considered the Champion of the Charter, announced that the country would ban single-use plastic by 2021. Available: <https://www.aa.com.tr/en/americas/canada-to-ban-single-use-plastics-by-2021-trudeau/1500520>.

4.6 New Plastics Economy – Ellen MacArthur Foundation

Summary of role: *New Plastics Economy is an initiative launched by the Ellen MacArthur Foundation in 2016 to build momentum towards a circular economy for plastics, starting with packaging.*

Summary of work: *In 2017, the Ellen MacArthur Foundation launched the New Plastic Economy Innovation Prize. In 2018, the Foundation launched the New Plastics Economy Global Commitment. It has implemented a number of Pioneer Projects which bring together stakeholders from across the plastics value chain to address the system challenges that no organisation can face alone. It also created Plastics Pact, a network of national implementation initiatives aligned around a common vision and set of ambiguous targets.*

Keywords/research fields: *New plastics economy; Ellen MacArthur foundation; background; aim; activities; projects; New Plastics Economy Innovation Prize; New Plastics Economy Global Commitment; pioneer*

4.6.1 Background and aim

New Plastics Economy is an initiative aimed at bringing together key stakeholders to build momentum towards a circular economy for plastics, starting with packaging. The initiative was launched by the Ellen MacArthur Foundation in May 2016 in collaboration with a broad group of leading companies, cities, philanthropists, policymakers, academics, students, NGOs, and citizens. Core partners of the initiative include Amcor, Borealis, DANONE, L'Oréal, Nestlé, the Coca-Cola Company, Unilever and Walmart. On 4 December 2019, Google joined the initiative as a technological partner. Available: <https://www.newplasticseconomy.org/participants>.

4.6.2 Activities and projects

In May 2017, the Ellen MacArthur Foundation launched a US\$2 million New Plastics Economy Innovation Prize for innovative solutions in materials, clever product designs and new, circular business models. The Circular Design Challenge winners were announced at the Our Ocean Conference in Malta on 5 October 2017. The Circular Materials Challenge winners were announced at the World Economic Forum annual meeting in Davos on 23 January 2018. Together, the winners joined a 12-months accelerator programme, in collaboration with Think Beyond Plastic, where they could work with experts to make their innovations marketable at scale. Among the winners, Evoware is from Indonesia. Available: <https://www.newplasticseconomy.org/projects/innovation-prize>.

In 2018, the Ellen MacArthur Foundation, in collaboration with UNEP, launched the New Plastics Economy Global Commitment which are a set of targets towards elimination and reduction of plastic by 2025. So far, it has been able to gather signatures from over 400 signatories which include companies representing 20% of all plastic packaging produced globally (such as L'Oréal, Mars, Nestlé, the Coca-Cola Company), governments, financial institutions, education and research institutions. Except for governments, many of the above institutions are from Asia or have activities in Southeast Asia.

Available: <https://www.newplasticseconomy.org/assets/doc/GC-Report-June19.pdf>.

Participants of the New Plastics Economy are also involved in pre-competitive collaborations, and lead and run several projects known as 'pioneer projects'. These projects bring together stakeholders from across the plastics value chain to address the systematic challenges that no organisation can face alone. Such projects include:

- Holy Grail (2017–May 2019): tagging packaging for accurate sorting and high-quality recycling; speeding up the transition to a circular economy for plastics by focusing on an important pillar to increase recycling rates, namely improved sorting of post-consumer packaging with the help of chemical tracers and digital watermarks. Available: <https://www.newplasticseconomy.org/assets/doc/Holy-Grail.pdf>.
- Lodestar (ongoing): a case study for plastics recycling; investigating the potential advantages of combining mechanical and chemical recycling in a single facility through desktop modelling exercise of an advanced Plastics Reprocessing Facility (a-PRF). Available: <https://www.newplasticseconomy.org/assets/doc/Lodestar.pdf>.
- Proof (November 2017–May 2019): prototyping of a packaging solution in the pre-competitive stage to demonstrate proof of concept and tangible outcomes. Available: <https://www.newplasticseconomy.org/>.

The Plastics Pact, a network of national implementation initiatives and organisations aligned around a common vision and set of ambitious targets, has also been formed. Presently, the Plastic Pact global network includes the UK, France, Chile, the Netherlands, Africa and Portugal. This may not have been implemented in Asia yet. Available: <https://www.newplasticseconomy.org/projects/plastics-pact>.

4.6.3 Reports

The first annual 'New Plastic Economy Global Commitment Progress Report' was released in October 2019. In this Report, indicators to a circular economy were included as follows:

- Phasing out of PS, EPS or PVDC
- Reuse pilots for all packaging
- Reusable, recyclable or compostable packaging in practice and at scale
- Capacity of recycling company
- Targets to reduce virgin plastic consumption in absolute terms

Available: <https://www.newplasticseconomy.org/assets/doc/Global-Commitment-2019-Progress-Report.pdf>.

Apart from the Global Commitment Progress Report, the New Plastics Economy has also published several reports on plastics and its role in the global economy. These include 'Rethinking the future of plastics' (launched in January 2016), 'Catalysing Action' (2017) and 'Reuse: rethinking packaging' (2019). Available: <https://www.newplasticseconomy.org/about/publications>.

4.7 The Alliance to End Plastic Waste (AEPW)

Summary of role: *The Alliance to End Plastic Waste is made up of more than 40 companies worldwide which produce, use, sell, process and recycle plastics and the World Business Council for Sustainable Development, which committed one billion USD with the goal of investing 1,5 billion USD in the next five years to help end plastic waste in the environment.*

Summary of work: *The Alliance hosted the first international forum in Tokyo, Japan in July 2019 and the first forum in Southeast Asia in August 2019. It launched a partnership with project STOP to support development and launch of a waste management recycling system in the regency of Jembrana, Indonesia. It also entered into partnership with Plug and Play to create an accelerator program focused on the plastics value chain to identify startups with different innovations to address plastic waste in the environment.*

Keywords/research fields: *The Alliance to End Plastic Waste; AEPW; background; activities, partnership with Project STOP; partnership with Plug and Play*

4.7.1 Background and aim

The Alliance to End Plastic Waste (AEPW) is made up of more than 40 companies worldwide which produce, use, sell, process and recycle plastics (such as P&G, Dow Chemical, Total, Veolia and more) and the World Business Council for Sustainable Development. These companies committed US\$1 billion, with the goal of investing US\$1.5 billion in the next five years to help end plastic waste in the environment. The Alliance appointed Jacob Due as President and CEO. Available: <https://endplasticwaste.org/>.

4.7.2 Activities and projects

AEPW hosted the first international forum at the Japanese Business Federation in Tokyo, Japan in 22 July 2019. The forum introduced AEPW to Japan, and focused on sharing best practices for raising awareness and advancing solutions for tackling the issue.

On 15 August 2019, the member companies of AEPW participated in the 5th Annual Sustainability and Circular Economy Summit in Washington, USA.

On 27 August 2019, AEPW held its first forum in Southeast Asia during the 'Circular Economy: Collaboration for Action' Conference in Bangkok, Thailand.

On 23 August 2019, AEPW launched a partnership with Project STOP to support the development and launch of a waste management recycling system in the regency of Jembrana, located on the northwest coast of Bali, Indonesia. Over the next three years, AEPW and Project STOP will collaborate on financial support, technical expertise and a feasibility study to assess how to extend the approach launched in Jembrana to achieve zero ocean-plastics leakage.

On 23 October 2019, AEPW entered into a partnership with Plug and Play to create an accelerator programme focused on the plastics value chain to identify start-ups with different innovations to address plastic waste in the environment.