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EUO x BEC Plastic Waste Reduction Workshop (21 March 2019)

Event Summary Report

Published on 5 June 2019



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Workshop Objectives

- **Promote environmentally responsible policies and actionable change:** The central objective was to reduce plastic waste by promoting environmental policies and encouraging people to change their attitude towards single-use plastic. The workshop also aimed to encourage the Government to adopt more environmentally-friendly policies and for the general public to take actions that reduce plastic waste.
- **Showcase the European Union's (EU) leadership in environmental issues:** The workshop aimed to raise the profile of the EU as the global leader in environmental protection in general, and the fight against single-use plastic in particular.
- **Promote exchanges and best practices between the EU and HK:** The workshop brought together businesses and experts from the EU and HK to share best practices in the areas of circular economy and plastic waste reduction. The objective was to partner with industry leaders and stakeholders to highlight the benefits of sustainable corporate social responsibility.
- **Showcase European solutions to plastic waste:** The workshop was a platform to showcase innovative solutions for plastic waste such as using recycled plastic as raw material.
- **Promote EU environmental standards:** The EU Office promoted EU policies and best practices to raise the environmental standards of local businesses as well as to positively influence official policies on waste reduction.
- **Enable civil society to push for change:** The workshop encouraged civil society and NGOs in particular to launch campaigns to reduce plastic waste.

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Opening Remarks

Ambassador Carmen Cano, Head, EU Office to Hong Kong and Macao

1. More action should be taken to address environmental issues on top of raising awareness. The objective of the workshop was to jointly find applicable solutions to plastic waste.
2. Many European and Hong Kong companies have already taken the opportunity to turn plastic waste into profitable business, and achieved encouraging results in reducing, replacing, recovering and recycling plastic.



Mr Adam Koo, CEO, Business Environment Council

1. Over the past year and a half, the plastic waste issue has gained publicity and public awareness has been growing ever since. Actions are taken by individuals, corporations, and even the entire sectors locally and internationally.
2. This workshop was timely, given the scheduled implementation of the municipal solid waste (MSW) charging scheme; plastic-related initiatives introduced in the Chief Executive's 2018 Policy Address; and the Government's ongoing producer responsibility scheme (PRS) study on plastic product containers.



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Keynote Speech

Mr. Wong Kam-sing, GBS, JP, Secretary for the Environment, HKSAR Government

1. The Government is considering the feasibility of banning the use of single-use plastic in the near future.
2. Since 1st January 2019, all government canteens have banned poly-foam takeaway boxes.
3. There are plans for charges on plastic bags to be reviewed. However, the balance between food hygiene and plastics should be maintained.
4. The Government is considering a deposit and refund scheme (DRS) to increase the recovery rate of plastic waste, similar to those in the European Union (EU). It can be done manually or via reverse vending machines (RVMs).
5. Given the large amount of waste plastic bottles generated in Hong Kong, the Government is conducting a feasibility study for the management of plastic beverage and personal hygiene containers.
6. Studies for the management of micro-plastics are needed.
7. Environmental education and awareness remains key:
 - To raise public environmental awareness and influence the public's behaviour, the Government is fostering a "bring your own bottle" culture (in the context of country parks – this is supplemented by the removal of refuse bins); organising shoreline clean up events; working with the private sector to offer reusable beverage jars to participants of the Hong Kong Sevens; and is looking to highlight the need to reduce single-use plastic during the upcoming World Environment Day and World Ocean Day.
 - The use of social media is also crucial to educate the public about the environment.



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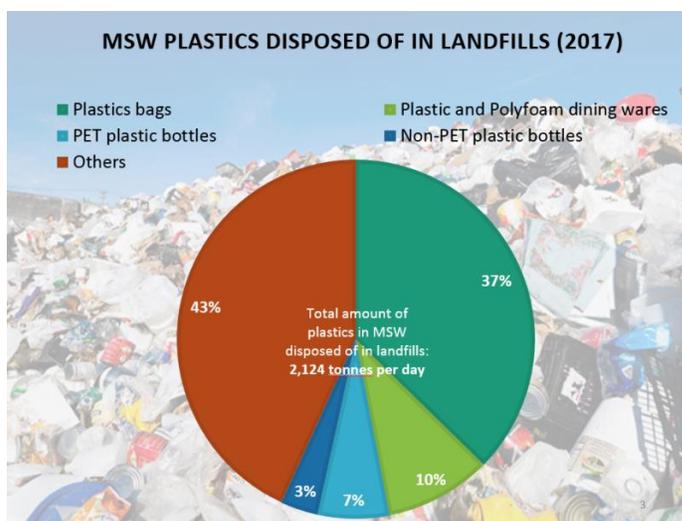


Plenary 1: Setting the scene

Plastic waste challenge in Hong Kong

Mrs Vicki Kwok, Deputy Director of Environmental Protection, HKSAR Government

1. As of 2017, the total amount of plastics in MSW disposed of in landfills is 2,124 tonnes per day.



2. In response, the Government aims to tackle the issue of plastic waste strategically; and is keen to create a circular economy for all recyclables especially for plastic beverage bottles.
 - The Government commissioned a consultancy study and has received affirmation that introducing a PRS on plastic beverage containers in Hong Kong is feasible, and will also implement a pilot scheme on the application of RVM.
3. The Government is committed to introducing a government-run central collection of all types of waste plastics.
 - Starting in 2019, a 2-year pilot scheme will be launched in Eastern, Kwun Tong and Shatin districts. The Government plans to expand the scheme and will invite tenders for operation in other districts. Operators will be working with stakeholders and downstream recyclers.
 - There are issues to address relating to this central collection system of waste plastics: how it works with the upcoming plastic bottle PRS, ensuring there is adequate downstream treatment outlets for different plastic types, and whether waste to energy can be pursued within this context.

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4. Whilst recycling needs to be done, it must be coupled with reduction of waste at source.
5. The plastic shopping bag charging scheme is under the Government’s review.
6. The Government is also taking action to reduce the use of disposable plastic tableware.
 - Government canteens have banned plastic straws and poly-foam food containers, and are placing similar requirements on restaurant operators in public venues. The Government is also progressively stopping the sale of plastic bottled water with volume being 1 litre or less in automatic vending machines at government premises.
 - Additionally, the Government is collaborating with 3 of the largest local fast food chains – Café de Coral, Fairwood and Maxim’s to promote the use of reusable cutlery.
 - Green lunch at schools is encouraged to normalise the use of reusable cutlery and phase out disposable containers.
7. In the long run, possible regulatory control for disposable plastic tableware and micro-plastics needs to be considered.

Plastic waste challenge in Europe

Mr Jack O’Sullivan, Director, Zero Waste Alliance Ireland

1. Overall, there is a big difference between the EU and Hong Kong in terms of geographic, demographic, and environmental context:

EU		Hong Kong
512,600,000	Population, <i>people</i>	7,350,000
4,324,782	Area, <i>km² of land</i>	1 105.7
116	Density of population, <i>people per km²</i>	6,732
70,685	Plastic waste produced, <i>tonnes per day</i>	2,000
< 30 % collected for recycling	Plastic waste recycled, %	< 15% recycled
0.138	Plastic waste produced, <i>kg / person / day</i>	0.272
16.3	Plastic waste produced, <i>kg / km² / day</i>	1808.8
3,147,000	Plastic bottles disposed, <i>tonnes per day</i>	132



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2. There is a huge amount of plastic movement, especially between China and Europe.
 - Under the rules laid down by the EU Commission, cleaned and sorted plastic can be sent abroad for further treatment. However, there have been cases where mixed waste which do not fulfil the requirement were sent abroad, to China for example.
3. To address the plastic waste challenge in Europe, the EU has a Packaging and Packaging Waste Directive (94/62/EC), amended by Directive 2015/720 to reduce the consumption of lightweight plastic carrier bags. It requires national consumption reduction targets to be set.
 - Under this Directive, some EU Member States have allowed customers to remove and return packaging to retailers after purchase and in front of other customers, creating societal pressure for other customers to follow suit.
4. Ireland's plastic bag charge is a success story.
 - The levy was €0.15 per bag in 2002 and was raised to €0.22 per bag in 2007 and annual bag usage dropped from almost 350 to 14 per person by 2012, within the span of 10 years.
 - Revenue obtained from the charge is directed to a dedicated fund to support waste management, litter prevention, environmental research and other initiatives. Data on the distribution of funds are transparent.
5. Multi-stream recycling, where recyclables are sorted at source, is preferable.
 - Waste collection systems in EU Member States vary greatly. On average, only 19% of generated MSW is collected separately in EU-28 countries.
 - Those that collect recyclables in a single waste bin typically do not assist recycling.
 - While it is favoured, multiple separation of waste at source is difficult. It requires more active household involvement and more space to accommodate different types of waste bins. These factors need to be accounted for in the context of Hong Kong which has a high population density.
6. Pay-by-weight systems work well in some EU Member States.
 - Charges are based on the amounts of residual waste collected, and these charges cross-finance the collection of other separately collected fractions.
 - However, it is hard to catch individual offenders who incorrectly separate waste, for example, those who put non-recyclables into recycling bins.

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7. DRSs are a potential solution to the plastic waste challenge.
 - DRSs for beverage containers, especially polyethylene terephthalate (PET) bottles are implemented in less than 50% of EU Member States.
 - In general, it is infeasible for each shop to have a DRS, especially for smaller shops. Instead, shops can join forces, with a single DRS to serve customers from multiple shops.
8. Extended producer responsibility (EPR) schemes are also potentially impactful measures to prevent or lessen waste generation.
 - Producers will be less likely to design a product that is difficult to recycle.
 - It is necessary to set general minimum requirements for EPR schemes to ensure a certain level of performance between EU Member States.
9. EU Action Plan for a Circular Economy notes plastics as a key priority. It highlights the following major areas for action: support innovation, develop a market for recycled plastics, raise public awareness, improve separation, clearer labelling, and restrict the intentional use of added micro-plastics.
10. It is also vital to work closely with businesses and encourage civil society to initiate campaigns to reduce plastic waste.
11. Key drivers for effective reduction of plastic waste in Hong Kong include:
 - the recognition that the accumulation of plastic waste poses an economic cost and is a source of health problems;
 - the recognition that discarded plastic waste could be transformed into a valuable raw material for further processing; and
 - the introduction of a fiscally neutral system of taxes and incentives encourage better segregation at source and improve collection of waste.
12. Hong Kong can draw from the European experience.

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Addressing the Plastic Waste Challenge in Europe

The most important lesson from the European experience is that the problems are **complex** and **multi-faceted**, and will require an **orchestrated multi-agency approach at several levels** to achieve goals which should firstly be **agreed by all stakeholders**.



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Plenary 2: Business solutions

Integrated plastic waste solutions

Mr Nigel Mattravers, ALBA Integrated Waste Solutions (Hong Kong) Limited

1. Observing the EU's experience with recycled plastics reveals the following:

Market Drivers of Recycled Plastics in the EU:

- EU Strategy and legislation to create a circular plastics economy
- Changing consumer awareness of plastics in the environment
- Brand owners desire to be considered 'Green'
- Technological advances helping to increase the feasibility of recycling more plastic waste streams
- Popularity of Reverse Vending Machines (RVM) for plastic bottle recycling
- Public willingness to participate



Slide 3 - ALBA Group on Plastics Recycling - March 2019



2. There is growing recognition and demand for recycled plastic as a valuable resource, rather than regarded as waste.
3. ALBA participates in the whole cycle of plastic recycling, including the collection, sorting and processing of recyclables, and the process of turning them to high quality recycled plastics for market use.

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- Collection is vital. ALBA carries out source separation, regional collection of lightweight packaging and RVM support. A big part of their business is the collection of commercial and industrial waste, and not just consumer waste.
 - Sorting facilities are essential to separating different types of waste and types of plastic.
 - Washing systems are needed to clean the waste plastic to transform it into usable and high value materials.
4. ALBA has a joint venture with Baguio and Swire Beverages to introduce a PET and high-density polyethylene recycling plant that produces high grade recycled PET materials in Hong Kong's EcoPark.
 5. There are many opportunities to add value to Hong Kong's cycle of plastic recycling:



Plastic bottled water

Mr Rando Yuen, A.S. Watson Group

1. Customers choose products based on the balance of quality and cost. There are many challenges for the retail sector on how to encourage consumers to choose sustainable products.
2. A.S. Watson Group started looking to improving their bottles' environmental impact since the 90s. By 2030, they aim to collect 100% equivalent of Watsons Water bottles sold in Hong Kong by launching 400 RVMs and 100 refillable drinks stations.

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Our Positive Impact Journey



Materials to replace plastic

Mr Anders Bergkvist, Stora Enso

1. In the foreseeable future, many countries will not have sophisticated waste collection and processing systems. Given there is a chance that a proportion of waste may end up in the landfill or in the environment, it is important to consider the environmental impact and degradability of the materials we use to make our products
2. Products that have bio-coating or are made from biodegradable materials offer a possible solution to address the plastic waste problem.
 - There are wood-based products available in the market:

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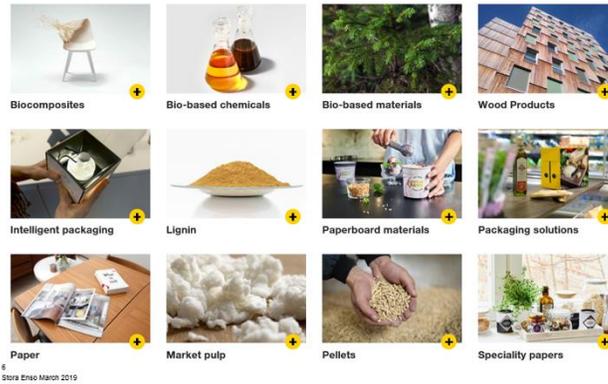


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Our renewable products...



- Stora Enso uses wood sustainably by planting trees for the production of its products. Doing so has the effect of tying down carbon in the ground, thereby limiting greenhouse gas emissions. This aligns with conditions tied with plantations in some areas in Asia and Latin America. For example, in Brazil, the plantation to forest ratio is 1:1, meaning if a tree gets cut down, another tree needs to be planted to compensate for the loss.
3. The Swedish Chambers of Commerce has taken action to reduce plastic waste by launching a position paper 'Plastic waste – a call for action', which appealed to the Government to improve its policies on waste plastics. In addition, the Swedish Chambers of Commerce, along with many of its members, have taken on the challenge to remove plastic bottles and cups from the workplace.
 4. Product packaging should also factor in consumer choice and behaviour. For example, there is a need to consider why customers prefer to purchase plastic bottled water.

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Panel discussion

Moderator: Mr CW Cheung, Director – Development, Business Environment Council

Panellists:

Mr Nigel Mattravers, Director, ALBA Integrated Waste Solutions (Hong Kong) Limited

Mr Rando Yuen, Group Sustainability Manager, A. S. Watson Group

Mr Kevin Tam, Managing Director, Grander Water Solutions

Mr Harold Yip, Founder and Executive Director, Secure Information Disposal Services Limited

Mr Anders Bergkvist, Senior Vice President, Head of Controlling and Finance, Stora Enso China



Driving and enabling factors for business actions

- There is a market for high quality recycled materials. This drives businesses and the industry to respond to such demands; however, a significant amount of investment has to be committed by businesses in order to realise the benefits.
- Tailor-made sustainable plastic alternatives are designed and produced to meet the growing demand from consumers.
- The establishment of the EcoPark has been helpful in providing land space for businesses in the recycling industry.

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- Businesses are becoming increasingly aware of their responsibilities in addressing the plastic waste pollution.

Challenges and opportunities for Hong Kong to become a circular economy

- Currently, the recycling industry in Hong Kong is largely based on free trading, which may be severely interrupted if there are external factors that influence the market (e.g. China's National Sword Policy).
- Certain manufacturers and retailers recognise their responsibilities in reducing plastic waste, but need to cater to customer demands and hygienic issues related to reusable alternatives.
- Investors are reluctant to invest in Hong Kong's waste infrastructure without a clear policy direction and legislations in place. However, there is optimism over the outlook and they expect the market to change over time as public policy and the industry develop.
- There is a need for businesses and the public to adjust their mindset to view plastic waste as a valuable resource.
- Hong Kong has the right conditions to transition to a circular economy: world class infrastructure; and dense urban developments with mature information and communications technology. As a result, Hong Kong has the potential to be a pilot city for other places with similar characteristics, especially those in Asia with a dense urban environment.

Key factors for the Government to consider

- Recycling should be an element of a well-planned and well-prepared process to tackle plastic pollution, but is not the sole solution to the issue.
- The Government should provide recurring, instead of one-off funding support to ensure the long term sustainability of the recycling industry.
- Sorting and separation facilities are essential for recycling, but they cannot be established and operated by the industry alone, given the high operating costs and the lack of land space in Hong Kong.

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Plenary 3: Cross-sector initiatives

Ten Tonne Challenge

Mr Eric Swinton, Founder, V Cycle

1. V cycle is a social enterprise founded in 2017 with a mission to tackle plastic pollution by providing environmental education to the public, creating a circular economy by upcycling plastic, and alleviating poverty by providing care and support for the underprivileged through recycling.
2. V cycle launched the “10 Tonne Challenge” in October 2018, with the aim to collect 10 tonnes of PET bottles within the span of 6 months until April 2019.



3. With more than 80 collection points installed around Hong Kong, the collected PET bottles were delivered to a collection centre by a company-sponsored truck; cleaned and sorted by trained “cardboard grannies”, or elderly scavengers; shipped to Taiwan for further processing into yarns; then sent back to Hong Kong and woven into bags by people with special needs.
4. Numerous events and school seminars were held to raise awareness and educate the public on recycling.
5. As of March 2019, 9.6 tonnes of PET bottles have been collected.
6. Moving forward, V Cycle has identified an industrial space in Tuen Mun, which will be able to create more job opportunities for elderly scavengers and further act as a community centre.

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Key NGO collaboration



“LOVE & CARE” services for cardboard grannies

- General survey (background and living conditions)
- Home visits
- Home repair (furniture and household appliances)
- Solutions to improve income, standard of living & working conditions
- Active listening and problem solving
- Alleviate loneliness



Drink Without Waste Initiative

Mr Paul Zimmerman, CEO, Designing Hong Kong

1. The Single-use Beverage Packaging Working Group was formed in 2017 to work together, develop, and facilitate strategies and actions to reduce waste from beverage consumption. The group commissioned a study to identify and evaluate how to effectively manage beverage packaging waste from single-use sealed containers in Hong Kong, which informed the development of a positioning paper and commitment pledges by a group of local NGOs, beverage producers, distributors and retailers.

Our strategies and actions



REDUCE
single-use packaging
Install beverage dispensers, bring your own bottle.



REDESIGN
single-use packaging
Regulate packaging standards



RECOVER
single-use packaging
Implement a cash-on-return scheme.



RECYCLE
single-use packaging
Build state-of-the-art recycling facilities.

#DrinkWithoutWaste

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2. The group identified four actions to take: reduce, redesign, recover and recycle. The group aims to:
 - reduce single-use beverage packaging, and
 - recover 70 – 90% of PET bottles and liquid cartons by 2025.
3. However, some challenges and questions remain, such as:
 - how to minimise the impacts of redesigning beverage packing on consumer choice and cost;
 - ways to address factors that may affect the cost of recycling systems; and
 - whether the recycling movement should be led by the industry or the Government.

Alliance to End Plastic Waste

Ms Genevieve Hilton, Head of External Communications & Corporate Citizenship, Corporate Affairs Asia Pacific, BASF

1. The plastics value chain is broader than what most people realise. Chemical companies are the manufacturers; and moving upstream, raw materials for plastics are actually by-products of the oil and gas industry.
2. Traditional plastic recycling is primarily done at the mechanical level and provides limited options for recycled products. Biological recycling is possible with fully-compostable polymers. Partially- or fully-bio-based plastics which are chemically identical to traditional plastics, are also being made. This characteristic is independent of compostability.
3. The industry is now looking into chemical recycling via pyrolysis to process plastic waste back to renewable raw materials.

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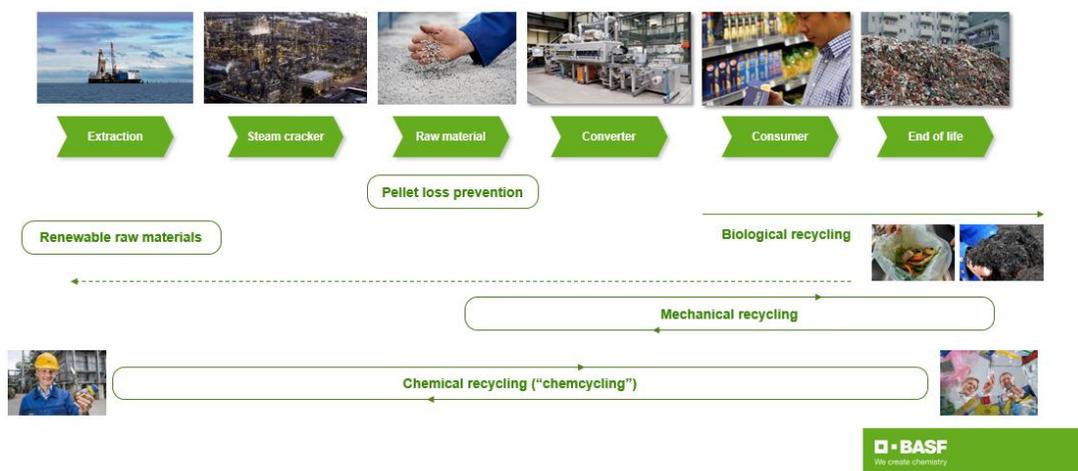


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The plastics value chain: an overview



4. To tap into the potential and leverage opportunities to reduce waste in the entire plastic value chain, initiatives have to be connected and scaled up to address the fundamental need for infrastructure investment.
5. The Alliance to End Plastic Waste was formed in early 2019 as a cross-sector, CEO-led, non-profit organisation to cultivate solutions, mobilise investment to minimise and remove plastic waste from the environment.
6. The Alliance came up with four strategic pillars:
 - Infrastructure: mobilise investment into waste infrastructure
 - Innovation: incubate and scale novel materials, designs and technologies that are sustainable
 - Education: facilitate engagements and collaborations at all levels and sectors
 - Clean Up: remove existing plastic waste in the ecosystem
7. Currently, there are nearly 30 members in the Alliance but none of them are Chinese companies. The next step for the Alliance is to expand its membership, particularly in Asia, and translate top-level commitments into workable actions not only within companies, but also across the value chain.

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Alliance members



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Panel Discussion

Moderator: Ms Eva Valle Lagares, Head of Trade, EU Office to Hong Kong and Macao

Panellists:

Ms Genevieve Hilton, Head of External Communications & Corporate Citizenship, Corporate Affairs Asia Pacific, BASF

Mr Paul Zimmerman, CEO, Designing Hong Kong

Mr Andy Ho, Co-founder and CEO, Carbon World Limited

Mr Mark Harper, Group Corporate Sustainability Manager, John Swire & Sons (HK) Limited

Mr Eric Swinton, Founder, V Cycle



The importance of multi-stakeholder, multi-national and cross-sector cooperation

- Large complex systemic issues, like plastic waste, require cooperation with different stakeholders in the supply chain, including regulators, NGOs, communities and industry partners.
- Building trust, being open-minded and maintaining flexibility in one's approach is crucial to a successful cooperation.

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- Forming independent working groups with different stakeholders are a good way to facilitate multi-stakeholder, multi-national and cross-sector cooperation. This process, albeit lengthy and complex, could potentially generate Hong Kong context-specific understandings and solutions to the plastic waste problem.
- Transparent information and the sharing of knowledge is key to enabling good partnerships.

Government's role in facilitating cross-sector initiatives

- Financial mechanisms are vital, such as MSW charging and PRS for plastic bottles.
- Open source data platforms can be set up for recycling companies.
- It may be helpful to form a centralised waste management authority that looks over the collection, sorting and processing of waste, as well as the collection and distribution of funds.
- The Government can draft eco-design regulations to maximise recycling.
- Furthermore, the Government can fund more innovation and provide additional support to social enterprises who are tackling the plastic waste issue.
- Realistic and non-contradictory requirements should be set. For example, it is not possible to require that mechanically recycled plastic materials also be biodegradable (as the source material may not be biodegradable).

What can individuals do?

- Lobby one's district councillor or Legislative Council member to vote for MSW charging bill.
- Separate waste at home.
- Use Environmental Protection Department (EPD)'s "Waste Less" mobile app to gather information on nearby recyclable collection points.

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Plenary 4: Moving forward together: Sharing from the breakout groups and discussion

Moderator: Mr Simon Ng, Director – Policy & Research, Business Environment Council

Panellists:

Mrs Vicki Kwok, Deputy Director of Environmental Protection, HKSAR Government

Mr Jack O’Sullivan, Director, Zero Waste Alliance Ireland

Ms Dana Winograd, Director – Operations, Plastic Free Seas

Ms Genevieve Hilton, Head of External Communications & Corporate Citizenship, Corporate Affairs Asia Pacific, BASF

Mr Edwin Lau, Founder and Executive Director, The Green Earth

Mr Philippe Li, Business Development Manager, Hong Kong Recycles

Leader of each breakout group reported back to the panel their main discussion points and recommended action item, and representatives from EU and HKSAR Government provided their immediate response and suggestions on stage.



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Parallel Breakout Sessions: Building Partnerships for New Actions



Workshop participants were divided into four groups: reduce, redesign, recover & reuse, and recycle. Under their corresponding themes, the groups were tasked to suggest one action item that should be prioritised in the coming 12 months. The following discussion questions were posed to the groups:

- What is the action?
- Why should it be prioritised?
- Who are the key players for this action? How could they be involved?
- What are the challenges or barriers to make it happen?
- What will be the Government, businesses and the community's role on supporting and facilitating this action?

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Redesign

Group Leader: Ms Dana Winograd, Director – Operations, Plastic Free Seas

Action item suggested: Finding an environmentally friendly alternative to expanded polystyrene food containers

The group agreed that the action should be to move away from expanded polystyrene (EPS), especially those used for food containers, and to find a replacement with the same functionalities – able to hold hot liquid, hygienic as well as environmentally friendly. EPS was prioritised because of its pervasiveness in Hong Kong’s environment, toxicity when heated, and lack of economic feasibility for recycling.

For this action item, restaurants would have a key role to play in replacing EPS food containers. Meanwhile, businesses, especially event organisers and food delivery companies, should demand or even have contractual requirements for alternatives to EPS food container. For example, landlords can contractually ban the use of EPS for the food and beverage facilities in their buildings through tenancy agreements (similar to those for food delivery services). The Government could also expedite the action by implementing EPS bans in public schools and public premises, providing subsidies to support the switch to non-EPS packaging, and in the long run, implementing legislative actions such as a producer responsibility scheme or a city-wide ban. Creating demand by engaging and educating consumers would also be of paramount importance – once there is demand the price could decrease. Lastly, to provide sufficient options for alternatives, manufacturers will need to create more alternative products through research, development and innovation.

The following challenges and considerations were raised during the discussion:

- Replacing EPS containers with an alternative disposable option is not ideal in terms of reducing the quantity of waste generated.
- The cost of EPS is low, and at the moment there is insufficient demand to drive down the price of alternatives.
- Legislation is a slow process even if the Government decides to ban EPS.

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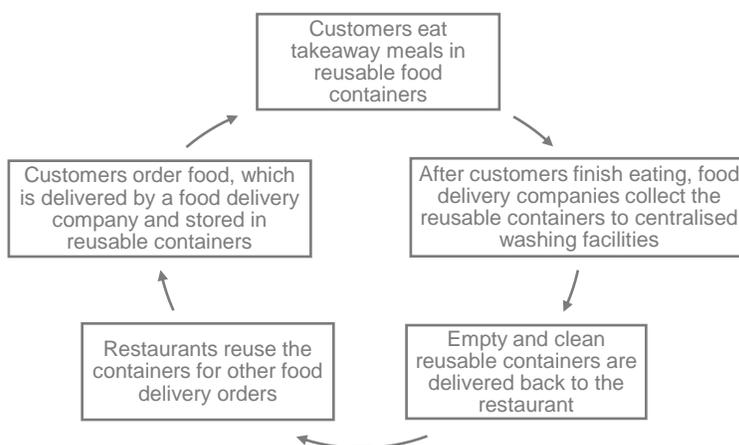


Reduce

Group leader: Ms Genevieve Hilton, Head of External Communications & Corporate Citizenship, Corporate Affairs Asia Pacific, BASF

Action item suggested: Food delivery system with reusable food container

From the group discussions, the implementation of reusable food containers for takeaway was chosen as the key action item to reduce plastic waste. Instead of waiting on the Government to take action, food delivery services can collaborate with various restaurants to use standardised reusable containers for food. Corporate lunches would be an essential target under this proposal, and the operation would be as follows:



Under this scheme, food delivery companies, fast food chains, restaurants and key operation buildings play key roles to encourage the use of reusable plastic food containers. Food delivery companies can provide the option to customers to use reusable containers when ordering food – similar to how customers can opt out of disposable cutlery nowadays. Fast food chain stores and restaurants can make a strategic decision to use reusable containers. NGOs play a supporting role in educating the public the importance of using reusable containers and providing information on restaurants that use reusable food containers.

In trying to realize this idea, the group mentioned several barriers that persist:

- It would need to be determined which party bears which costs.
- Some restaurants may find it difficult to change their choice of food packaging. For instance, traditional Chinese restaurants choose to use Styrofoam packaging to keep the food warm.

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- While bigger companies have more resources to change their food delivery containers, smaller companies or restaurants may need more support to make a similar change.
- Some hotels and restaurant groups may want to have different designs for their food containers for market differentiation, making standardisation difficult.
- The industry faces difficulties in hiring people for cleaning services. As a result, having centralised washing facilities may help overcome this issue.
- Consumer trust in hygiene is essential to make reusable containers a success, raising the question of how such risks can be managed and who should be held accountable for hygiene-related problems. The Government can address these problems by providing land or facilities for centralised washing facilities; helping set up these facilities; and drafting a proposal of food washing or hygiene standard for these facilities to follow.

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Recover and reuse

Group leader: Mr Edwin Lau, MH, Founder and Executive Director, The Green Earth

Action item suggested: Putting in place legislation (e.g. MSW charging and PRS)

The group agreed that legislation, notably MSW charging and PRS should be the key action item that is prioritised in the coming 12 months. MSW charging in particular is very comprehensive in dealing with all types of MSW. Since Hong Kong people are price sensitive, legislations that put a price on MSW disposal and enforce the “polluter-pays” principle will motivate the general public to do proper recycling and even waste reduction at source.

The Government is a key player to ensure that these legislations will be implemented effectively. The group suggested the Government to give a clear visionary direction to the public on these legislations. In conjunction, it is crucial that the Government will keep educating the public to make them consider the legislation on reducing plastic waste as positive and necessary, rather than a financial penalty. The issue of plastic waste should be framed as a serious public health and environmental issue. The EPD outreaching teams should better prepare communities by informing and providing relevant resources related to the MSW charging schemes and PRS. The Government also needs to audit waste recycling systems in buildings to ensure these recycling systems are properly set up and operated. They should inspect and monitor all types of buildings, even those single block buildings.

However, the group noted the challenges that may hinder such legislations from being implemented or being successful. There is:

- No long-term sustainability vision of the city at this moment. Even if there is one, the general public does not seem to fully understand it.
- A lack of legislation to incentivise the recovery of plastic waste, unlike the EU, where there are mandatory recycling and recovery requirements.
- A lack of public trust in the existing public and private recycling system.
- Inadequate local research investigating the contents of plastic in Hong Kong’s environment (for example water and food chain), and insufficient environmental education for people of all ages.
- A lack of easily available information that informs the public what types of plastic waste can be recycled, as well as why and how to avoid the contamination of plastic waste to facilitate effective recycling.

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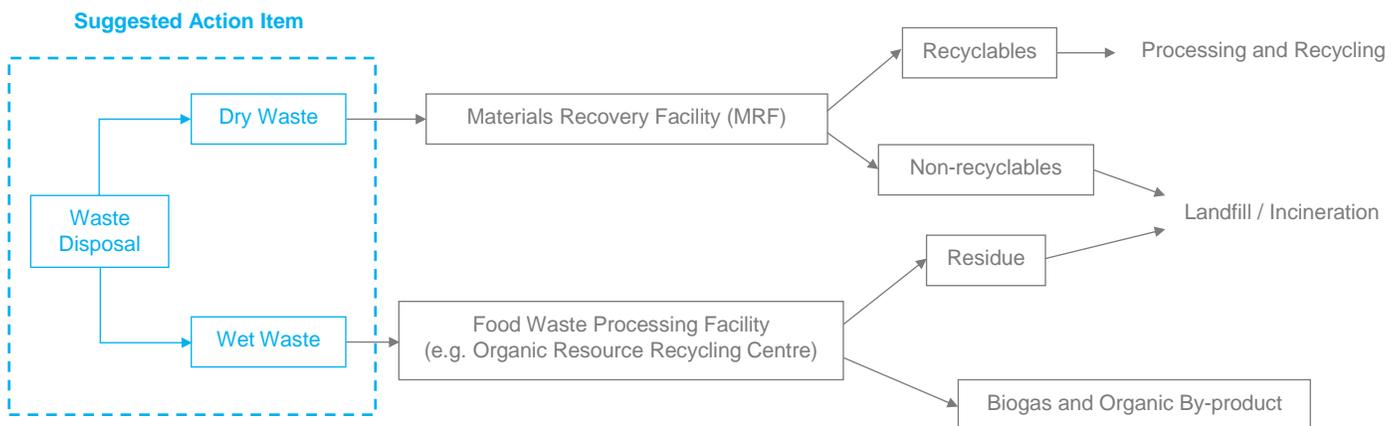
Recycle

Group Leader: Mr Philippe Li, Business Development Manager, Hong Kong Recycles

Action item suggested: dry and wet waste separation at source, supported by legislation

In terms of plastics recycling in Hong Kong, the group came to conclusion that separating wet (food) waste and dry waste at source should be prioritised among other actions. This separation will be essential for waste sorting in materials recovery facilities (MRFs) as it prevents contamination of recyclables. Simplifying the waste disposal process into two types of waste and consequently two types of bags and bins can also reduce the demand for space to be taken up in refuse rooms in buildings.

A possible waste management system is illustrated in the simplified flow chart below:



Under this arrangement, it will be essential for property management companies and property owners to educate and train tenants and residents on dry and wet waste separation, as well as set up refuse rooms in buildings to facilitate the right behaviour for waste disposal. The existing recycling industry and local collectors will have to develop the capacity to handle the collection and recycling of dry and wet waste. In the long run, legislation and education will be key to enhance public awareness. The ancillary collection and processing facilities also need to be considered as parts of a holistic waste reduction plan by the Government.

The group also identified some of the key challenges to the action:

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- Reaching an agreement on the definition of dry and wet waste, and educating the public to distinguish between them.
- Single-stream recycling is proven to be less successful in reducing the quantity of waste, as the absence of separating recyclables from general waste is less influential on changing consumer behaviour and habits.
- Dry and wet waste separation at source will not be useful in boosting the recycling rate without proper downstream facilities (e.g. MRFs).
- Small scale recyclers, collectors and scavengers (e.g. "cardboard grannies") may be adversely affected under this arrangement.

Closing Remarks

Ms Eva Valle Lagares, Head of Trade, EU Office to Hong Kong and Macao

The encouraging solutions presented by speakers and the active participation from the audience demonstrated the overall optimism of participants. Workshop participants exhibited a strong level of commitment and eagerness to make and lead the change, both by individuals and corporates.

The process of reducing plastic waste, however, will still be lengthy and demanding, with challenges in financing and education. The EUO is keen to support the Hong Kong Government along the journey, and hopes to follow up with the



creative solutions proposed at the workshop. These ideas should not be seen as a cost, but an opportunity for businesses to reduce future costs and gain a competitive advantage.

To conclude, the EUO expressed its gratitude for the Government's sharing and openness to receive and respond to comments and enquiries throughout the event; and for BEC as a partner in the organisation of the workshop.

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Lessons Learnt, Recommendations and Next Steps

One major takeaway from the workshop was that there is a strong sense of urgency among participants, and cross-sector collaborations have mushroomed in the past year or two to take leadership in seeking and innovating business solutions, trialing out different schemes and partnerships at the sectoral and community levels, and getting everyone ready for legislations and regulations.

In this regard, EU experience and best practices in regulations and business innovation are extremely helpful in informing the conversation during the workshop, as well as supporting Hong Kong in addressing our plastic waste issue moving forward.

While a lot was discussed in the workshop, the four recommendations that came out of the breakout sessions in the afternoon were the highlights of the day. BEC will follow up on the four action items, namely (a) to find environmentally friendly alternative to expanded polystyrene food containers, (b) to use reusable food containers for food delivery, (c) to implement municipal solid waste charging and producer responsibility schemes in Hong Kong, and (d) to separate dry and wet waste at source, with our stakeholders, including the EUO as our major collaborator, and determine how these actions can be prioritised and realised.

This conversation was also extended on 17 May 2019 with BEC's [EnviroSeries Conference](#) themed "The Business of Waste – Solving Hong Kong's Urgent Environmental Problem", where leaders from businesses, the Government, policy makers and entrepreneurs further discussed the problems, opportunities and future strategies in Hong Kong's waste management system collaboratively. EUO was invited as a supporting organisation of the conference, and speakers from the European Chamber of Commerce in Hong Kong were also invited to provide some European perspective at the event.

It was acknowledged that this workshop was just the beginning of an important and long-term process to manage resources sustainably and to reduce waste effectively. It requires a continuous dialogue to facilitate shifts in government policy, business strategies and public attitudes towards waste management. BEC working with EUO will continue to facilitate such dialogue between the Government, the business sector, the NGO sector and the local community.

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Glossary

DRS	Deposit and Return Scheme
EPD	Environmental Protection Department
EPR	Extended Producer Responsibility
EPS	Extended Polystyrene
EU	European Union
MRF	Materials Recovery Facility
MSW	Municipal Solid Waste
PET	Polyethylene Terephthalate
PRS	Producer Responsibility Scheme
RVM	Reverse Vending Machine

Acknowledgements

BEC would like to thank the European Union Office to Hong Kong and Macao for generously funding and hosting the workshop with BEC; the HKSAR Government for contributing and giving valuable insights to waste policies; the European Chamber of Commerce for promoting the event and connecting Hong Kong and European businesses; and speakers, panelists, moderators and workshop participants for sharing their expertise and experiences, making this workshop a great success.

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Mr Donald Ng	Environmental Protection Department
Mr Bruno Luk	Environmental Protection Department
Mr Stephen Siu	Environmental Protection Department
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Dr Samuel Chui	Environmental Protection Department
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Mr Kwok Ho	TOMRA Group
Ms Helen Chan	Urban Spring
Mr Eric Swinton	V Cycle
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Ms Lianne Ng	Vitasoy International Holdings Limited
Ms Rachel Pang	Water for Free
Ms Annie Yeung	We Use Limited
Mr Shailesh Sreedharan	World Resources Institute
Ms Anniqa Law	WWF Hong Kong
Mr Jack O'Sullivan	Zero Waste Alliance Ireland

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Workshop Programme

Time	Topic
08:30 – 09:00	Registration
09:00 – 09:05	Opening Remarks Ambassador Carmen Cano, Head, EU Office to Hong Kong and Macao
09:05 – 09:10	Welcome Remarks Mr Adam Koo, CEO, Business Environment Council
09:10 – 09:25	Keynote Speech Mr Wong Kam-sing, GBS, JP, Secretary for the Environment, HKSAR Government
Plenary 1: Setting the scene Moderator: Mr Simon Ng, Director – Policy & Research, Business Environment Council	
09:25 – 09:35	Plastic waste challenge in Hong Kong Mrs Vicki Kwok, Deputy Director of Environmental Protection, HKSAR Government
09:35 – 09:45	Plastic waste challenge in Europe Mr Jack O’Sullivan, Director, Zero Waste Alliance Ireland
Plenary 2: Business solutions Moderator: Mr C W Cheung, Director – Development, Business Environment Council	
09:45 – 09:55	Integrated plastic waste solutions Mr Nigel Mattravers, ALBA Integrated Waste Solutions (Hong Kong) Limited
09:55 – 10:05	Plastic bottled water Mr Sébastien Pivet, A.S. Watson Group
10:05 – 10:15	Materials to replace plastic Mr Anders Bergkvist, Stora Enso
10:15 – 11:10	Panel discussion: Mr Nigel Mattravers, ALBA Integrated Waste Solutions (Hong Kong) Limited Mr Sébastien Pivet, A.S. Watson Group Mr Anders Bergkvist, Stora Enso Mr Kevin Tam, Grander Water Mr Harold Yip, SSID
11:10 – 11:30	Morning Networking Break

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Plenary 3: Cross-sector initiatives	
Moderator: Ms Eva Valle Lagares, Head of Trade, EU Office to Hong Kong and Macao	
11:30 – 11:40	Ten Tonne Challenge Mr Eric Swinton, V Cycle
11:40 – 11:50	Drink Without Waste Initiative Mr Paul Zimmerman, Drink Without Waste Working Group
11:50 – 12:00	Alliance to End Plastic Waste Ms Genevieve Hilton, BASF
12:00 – 13:00	Panel discussion: Mr Eric Swinton, V Cycle Mr Paul Zimmerman, Drink Without Waste Working Group Ms Genevieve Hilton, BASF Mr Mark Harper, John Swire & Son (HK) Limited Mr Andy Ho, Carbon World Limited
13:00 – 14:00	Networking Lunch
Parallel Breakout Sessions: Building partnerships for new actions	
14:00 – 14:10	Introduction
14:10 – 15:40	Moderated breakout sessions on: (a) Redesign – new packaging standards, eco-design, etc (b) Reduce – bring your own bottle, install beverage dispensers, etc (c) Recover/Reuse – reverse vending machine, cash-on-return scheme, repurpose/reuse plastic, etc (d) Recycle – collection, sorting, storage, processing, etc
15:40 – 16:00	Afternoon Networking Break
Plenary 4: Moving forward together	
Moderator: Mr Simon Ng, Director – Policy & Research, Business Environment Council	
16:00 – 16:50	Sharing from the four breakout groups: Ms Dana Winogard (Redesign) Ms Genevieve Hilton (Reduce) Mr Edwin Lau (Recover/Reuse) Mr Philippe Li (Recycle) Response from: Mrs Vicki Kwok, Deputy Director of Environmental Protection, HKSAR Government Mr Jack O’Sullivan, Director, Zero Waste Alliance Ireland
16:50 – 17:00	Closing Remarks Ambassador Carmen Cano, Head, EU Office to Hong Kong and Macao
17:10 – 17:30	BEC building tour – BEAM Plus platinum rating + green features (optional)