



**G.R.E.E.N. Hospitality**

**G.R.E.E.N. HOSPITALITY TOOLKIT**

**PLASTIC REDUCTION GUIDE  
FOR THE HOSPITALITY  
INDUSTRY**

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# INTRODUCTION

T

he fact that plastic pollution is a plague in East and Southeast Asia is no news. With its rapid increase in population during the last 50 years and the fast growing pace of East Asian economies, plastic is now ubiquitous, especially within the region's rapidly developing tourism and hospitality industry, where it has become the ultimate material for guests' convenience at lower cost.

Today, the East Asia and Pacific (EAP) region - which includes East and Southeast Asian countries as well as Australia and the islands in the Pacific - is the region that produces most municipal solid waste (MSW). It will continue to be so in 2050 if nothing is done<sup>1</sup>. Each day on average, the region produces about 1.3 million tonnes of MSW, among which about **12% is plastic**<sup>2</sup>. The quantity of "dry" waste produced is tightly linked to a country's development level. For example, in the most developed economies of the region like Hong Kong, plastic accounts for about 20.5% of the total MSW generated<sup>3</sup>. In 2017 in Hong Kong<sup>4</sup>, the commercial sector, in which we find hotels and restaurants, generated **679 tonnes of plastic per day** (equivalent to the weight of about 16.5 average-sized airplanes). Among those, a significant part can be attributed to the throw-away culture in hospitality: a single 200-room four-star hotel can use about **300,000 pieces of single-use plastic in a month** if it is at full-capacity<sup>5</sup>.

Among the total municipal solid waste generated in Hong Kong in 2018



In 2017, the commercial sector in Hong Kong produced



of land-based plastic waste leaking into the world's oceans comes from 5 countries: China, Indonesia, the Philippines, Vietnam and Thailand.

**YOU GET IT: WHAT DO WE DO WITH ALL THIS PLASTIC THEN?**

Well, in the EAP region, it most of the time ends up in the rivers and ultimately the seas and oceans: **over half of the land-based plastic pollution in our oceans originates from just five countries**, and **all of them are located in East Asia<sup>6</sup>**. This is due to local sources but also to plastic waste imports from other countries, mainly developed ones. But plastic ending up in the ocean **can never be recovered**: bigger plastic debris accumulate near the shore, decompose due to different factors like waves, wind, salt, UV rays or friction with the rocks, and end up in the middle or at the bottom of the ocean, broken down into particles smaller than 5mm called "microplastics". These microplastics are the hidden part of the plastic iceberg: they are the ones forming the Great Ocean Garbage Patches. They cannot be recovered, traced back to a country or a company, they absorb toxic substances, end up in the food chain and, ultimately, on our plates.

Hong Kong has a plastic problem too: **over 17 million pieces of plastic waste is washed into the sea from the city's Shing Mun River every year**. For the moment, the plastic the city produces is mainly sent to the three sanitary landfills that constitute the bulk of its waste disposal infrastructures, even if they were supposed to be full respectively in 2015, 2017 and 2019<sup>7</sup>. What about the other things we can do with plastic?

## BURN IT LIKE IN SINGAPORE?

There are currently no incinerators in Hong Kong. The one under construction should be ready in 2024 and will be able to process 3,000 tonnes per day, so about 44.4% of the city's dry waste.

## RECYCLE IT LIKE IN TAIWAN?

Recycling is dictated by the laws of the market, supply and demand. Companies get into the recycling business when there is an economic incentive to do so and a market to fuel and, despite the government's efforts to stimulate the sector<sup>8</sup>, there is not much of a market in Hong Kong right now. In January 2019, there were 267 plastic "recycling" companies in Hong Kong but in essence, they mostly collect waste and trade it<sup>9</sup>, at least before the Chinese ban on waste in January 2018. At the time, among the 125.9 thousand tonnes of plastic waste that were collected, **94% was exported<sup>10</sup>**.

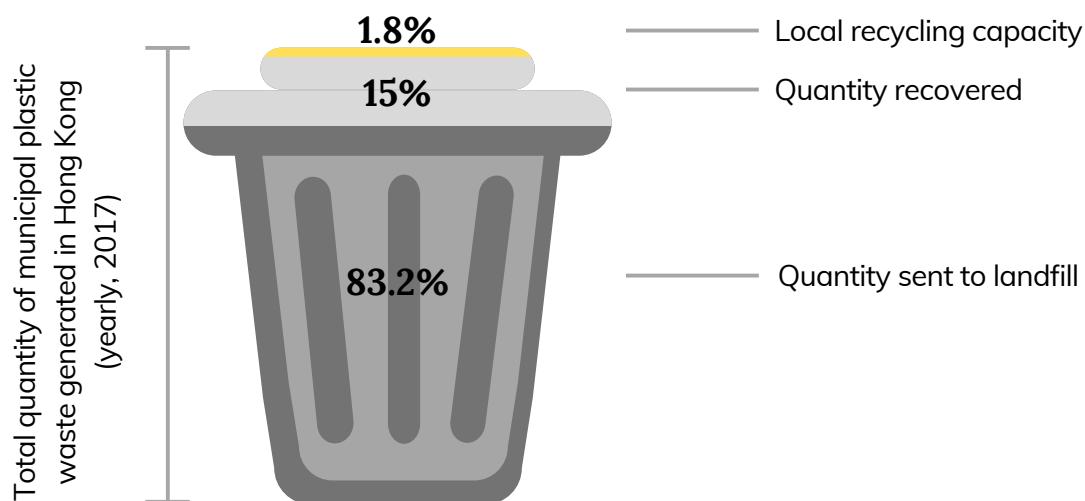
Photo:  
Sea of plastic after  
Typhoon Mangkhut.

Hong Kong, 2018.



After the ban and the subsequent worldwide scramble it caused, the plastic “recycling” rate (meaning waste that is both recycled locally and exported) in Hong Kong fell from 16.2% in 2016 to 7.5% in 2018. In 2017, existing plastic recycling facilities could process only 12% of the 115.7 thousand tonnes of recovered plastic waste<sup>11</sup>. It means that Hong Kong had the capacity to recycle about **1.8% of the total plastic waste it produced (775,260 tonnes)**. With the ban, the sector is struggling even more.

Figure 1: Capacity of the plastic recycling industry in Hong Kong, 2017



Source: Hong Kong Environmental Protection Department and Hong Kong Legislative Council

Hong Kong's waste management system seems insufficient, but one could think though that the disposal methods are at least controlled and that plastics eventually end up in landfills and not in the sea. However, while it is true that landfills in Hong Kong are a controlled environment (the leachate and gases that are produced are recovered), it doesn't prevent the tropical heavy rains or typhoons that the city experiences every year from carrying big quantities of plastic into the sea.

So no, contrary to what is widely believed, the Pearl River isn't the only source of plastic pollution in the Hong Kong waters. **Hong Kong's marine plastic pollution has local sources**, and the city is also choking on microplastics: in 2018, a study by Ho and Not<sup>12</sup> collected samples on beaches and the nearshore area around the islands. On the beach, 4.8% of the plastic debris corresponded to macroplastics and **95.2% to microplastics**. From the water samples, 3.33% corresponded to macroplastics and **96.7% to microplastics**.

It seems like companies within the hospitality industry can do little to solve the problem...

**Or does it?** Here are 5 practical things that companies within the industry can do to tackle the ever-mounting problem of plastic pollution, with practical examples from their peers and actionable guides.



# 1. FIND IT

Plastic is everywhere, so it shouldn't be hard to find it, right? Well, this is exactly why it is hard to get rid of plastic. Plastic's versatile functionality and ubiquity means we just cannot eliminate it from our lives altogether in one go, and hotels, restaurants and other establishments from the hospitality industry are no exception.

The key is then to start with the "**low-hanging fruits**", that is, small, quickly actionable and low-cost changes before going to more systemic ones. A step-by-step approach is always a good place to start when it comes to systemic changes. To find these "fruits", it can be useful to start mapping the plastic waste using a very detailed tool developed by a UK-based NGO called "WRAP". It shows basically that, when engaging in waste reduction, reliable data is key.

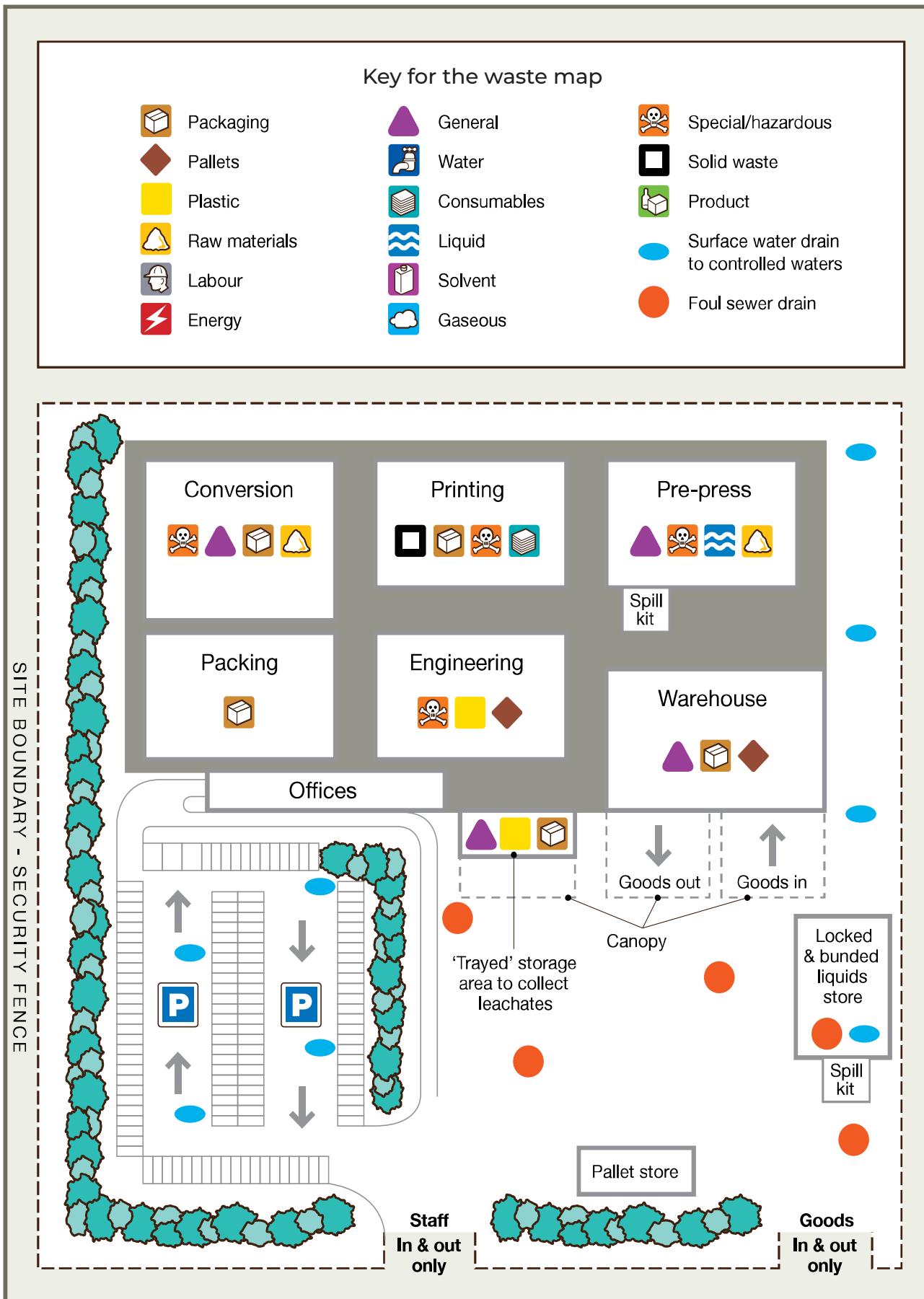
This map will help your establishment to see where the waste comes from, how much waste is produced, how much it costs to buy these products, and it will enable you to record your progress on the waste-reduction path.

Once you have identified where all the plastic is within your organization, you can then take the second step, which is **prioritizing your actions by identifying the "quick wins"**. Travel Without Plastic, a Spain-based social enterprise that supports hotels in their sustainability initiatives, suggests to start with identifying the top 3, 5 or 10 waste items that have the **biggest economical and environmental impact**, and also to be vigilant with which ones are most **likely to be banned due to future regulations**.

During this process of prioritization, it is also important to **include the staff** to ensure that the targets and good practices are communicated throughout, so that everyone has the knowledge and tools to work towards achieving the targets, while helping guests understand the rationale of any specific policies put in place to achieve the goals. This is why Travel Without Waste recommends to involve department heads and share with them the statistics from the cost/consumption exercise. The final step is then to discuss the potential impacts that any changes would have upon workload, customer satisfaction, current processes, disposal etc. and adjust the priority list accordingly.

This will help setting priorities, targets and a procedure to reduce plastic waste, starting with the ones that could be avoided.

Figure 2: Example of waste mapping



Source: WRAP, 2013



## 2. AVOID IT

The main problem with plastic comes from its biggest advantage. It is cheap, designed as such and perceived as such. Today, with the coronavirus pandemic, this trend will intensify as oil prices free-falled these past months, making plastic even cheaper. It becomes okay to dispose of it if it has no value: it has a "disposable design". The hidden story behind that fact is that plastic isn't really cheap. According to the New Plastics Economy, a report by the Ellen MacArthur Foundation, "over 90% of plastics produced are derived from virgin fossil feedstocks. This represents, for all plastics (not just packaging), about **6% of global oil consumption**, which is **equivalent to the oil consumption of the global aviation sector**. If the current strong growth of plastics usage continues as expected, the plastics sector will account for 20% of total oil consumption and 15% of the global annual carbon budget<sup>13</sup> by 2050."

Also, regardless of the pandemic, discarding plastic is still as expensive: plastic litter in the Asia-Pacific region alone costs its tourism, fishing and shipping industries **US\$1.3 billion** per year<sup>14</sup>, and this represents **only a tenth** of the total natural capital cost to marine ecosystems of plastic littering per year<sup>15</sup>. When considering the long-term environmental costs, **plastic is not cheap**, and we should stop using it as if it was.



**WHEN CONSIDERING THE LONG-TERM ENVIRONMENTAL COSTS, PLASTIC IS NOT CHEAP, AND WE SHOULD STOP USING IT AS IF IT WAS.**

The ultimate embodiment of the disposable design is **single-use plastics**, especially within the hospitality industry where hygiene, guests' convenience and cost efficiency are a priority. However, most single-use plastics can be avoided by simply **not making it the default option**. More and more international hotel chains like Accor, Marriott, Intercontinental, Madarin Oriental, Hilton or Hyatt are phasing out their individual single-use shampoo/shower gel bottles and replacing them with bulk dispensers, for example. Some groups like the Radisson decided to completely phase out single-use plastics from their meetings and events operations, including the plastic packaging for candies. Other actions include the switch to "**opt-in" systems** where single-use items, instead of being readily available, are given upon guests' request. This option has been chosen by the Chinese government in 2019, with the enforcement in Shanghai of the first municipal regulation on waste treatment.

This measure **forbids the city's restaurants, shops, and hotels from offering free disposable items to customers on their own initiative**<sup>16</sup>. Companies within the hospitality industry can also concentrate on proposing **reusable items** like refillable stainless steel water bottles or reusable shopping bags that guests can lend instead of single-use items. Unfortunately, the habit of reusing items has also been made more difficult by the pandemic and plastic single-use items might become harder to get rid of due to **health security concerns**. Certain countries like the UK have even delayed their ban on single-use plastics for that reason, even if there is apparently no evidence of food or food packaging spreading Covid-19.

In order to avoid plastic, one should also be aware that it can be found in more products than we think. Some cosmetics like scrubs or toothpaste contain microbeads that end up in the ocean. While some countries like Sweden already banned microbeads, Hong Kong has not yet regulated their use. A 2018 study from the Department of Earth Sciences of the University of Hong Kong and the Swire Institute of Marine Science shows that microbeads represent a non-negligible part of the microplastic pollution of Hong Kong coastal water as **60% of the water samples** collected around the island contained microbeads<sup>17</sup>.

**Single-use plastic packaging** from suppliers is also a substantial source of plastic that is often forgotten. Yet, packaging is plastics' largest application, representing **26% of the total volume of plastic produced per year**<sup>18</sup>. Again, the reason for that success is that plastic packaging is very effective: it is inexpensive, lightweight (which reduces fuel consumption in transportation) and high-performing as it keeps food fresh longer, reducing food waste.

Despite all these qualities, single-use plastic packaging is still designed to be thrown away after a short use, in a linear consumption style where **95% of the manufacturing and natural resource value of the packaging is lost**, which converts into **US\$80-120 billion annually**<sup>19</sup>. For the particular case of packaging, **suppliers' involvement is necessary** to address the issue when looking into more sustainable resources. So as to create synergies between a hospitality establishment's sustainable practices and its suppliers', WRAP created a guide to engage suppliers in sustainability.

Once you have avoided unnecessary plastics, you can have a look at the ones that are left and try to **replace them** with more sustainable material.

## How to engage suppliers in sustainability

1.

Evaluate your current procurement practices and if sustainability is taken into account as a variable for purchasing products

2.

Identify "key suppliers", which needs to be cross-referenced with your plastic items' priority list

3.

Engage these "key suppliers" to jointly review impacts, risks and opportunities to encourage joint action for mutual benefit

4.

Measure the suppliers' performance through "scorecards"

5.

Develop and implement joint actions, reward and communication around the new practices

Source: WRAP, 2013



### 3. REPLACE IT

Replacing plastic can be tricky as not all materials present the same advantageous properties, and not at the same short-term monetary cost. So as to replace plastic in your establishment, you might want to consider a **green procurement approach** when it comes to choosing the alternative. Green procurement is a term that refers to the way a company makes choices regarding its purchases. Decisive criteria are not only price, quality, functionality and availability but also **include environmental, social and ethical considerations** throughout the whole life of the product: from manufacturing to discarding method (this is also called a **life-cycle approach**). So, when trying to switch from plastic to more sustainable alternatives, a hospitality establishment should ask themselves a series of questions that are extensively listed in this [article from Green Hotelier](#), which prompt considerations on raw materials, manufacture processes, transport and delivery, use, and end-of-life disposal methods.

**SCANDIC SCREENS 96% OF ALL CONTRACTED SUPPLIERS AND ENCOURAGES CONTINUOUS DIALOGUE WITH THEM.**



This "life-cycle" approach will help you avoid the pitfall of greenwashing or scandals that would damage your reputation as a business putting real efforts into sustainability. This is why **a careful selection of your suppliers** is essential: some hotels like the Nordic hotel chain Scandic screens 96% of all contracted suppliers and encourages continuous dialogue with them.

There are many alternatives to plastic in the market, and, as often when it comes to waste, there is **no one-size-fits-all solution**. Each establishment needs to assess its needs and requirements. To help hotels avoid and replace all their single-use items, the travel agency TUI created a very useful list of all single-use plastic items that are found in a hotel's different operational areas (restaurant, spa, bar etc.). It shows plastic items that can be avoided and the alternative options that hotels can replace the items with.

When it comes to replacing plastic, the next double page is a list of the alternatives that can be considered in order to replace your remaining single-use items.

A large, translucent plastic bag floats in the deep blue ocean. The bag is partially submerged, with its edges catching some light and creating highlights against the dark water. The ocean surface is visible in the background, showing small ripples and waves under a clear sky.

All these alternatives are meant to replace specific objects with ones presenting similar properties, but made out of more sustainable material.

Another approach is to **change the way we think about the product and the way we use it**. For example, in Germany, a company created zero waste toothpaste tablets that don't need a plastic tube. These types of innovation and new materials are evolving at a fast pace, and this is why, here again, involving your suppliers in your sustainability goals and vision will encourage them to stay attuned to these kinds of innovations.

A last thing to keep in mind when choosing a material to replace plastic with is **its recyclability**. Many products like crisps packaging, for example, or take-away cardboard cups are actually made of **many layers of different material** that makes them hard to recycle. If you want your staff and your guests to recycle properly when staying at your establishment, it's better if you make it easier for them to do so by avoiding this kind of multi-layered or multi-material items.

# TABLE 1: EXAMPLES OF ALTERNATIVES TO PLASTIC

## BIO-BASED PLASTICS (PLA)

"Bio-based plastic" refers to plastic made from plants or other biological material instead of petroleum. The most common type of bioplastic comes from extracted sugar from plants, like corn and sugarcane, converted into polylactic acids (PLAs). This material is commonly found in food packaging.



PLA is the cheapest type of bioplastic



- Must be treated in a special industrial composting facility
- Use of fertilizers to grow the crops to produce PLA
- Land diverted from food production
- Acts like regular plastic in water (breaks down into microparticles)



- No oil needed to manufacture the product
- Renewable source
- Supports an agrarian economy and can be grown anywhere
- Compostable but not biodegradable

## CARDBOARD

Generic term for heavy-duty paper-based products having greater thickness and superior durability or other specific mechanical attributes to paper, such as foldability, rigidity and impact resistance.



Cardboard is generally cheaper for single-use



- Manufacturing process from virgin trees releases more GHG than plastic (the CO<sub>2</sub> emission is reduced if the cardboard is recycled)
- Less durable than plastic, so it is sometimes coated with a plastic layer, which makes it hard to recycle
- Creates methane if degraded under anaerobic conditions (e.g., In a non-controlled landfill environment)



- No oil needed to manufacture the product
- Biodegrades (except when coated with plastic or wax)
- Recyclable

## SOLUBLE PLASTIC

Soluble plastic is made from modified Polyvinyl Alcohol (PVA) which comes from natural gas or calcium carbide. It can dissolve in minutes in water without releasing toxic chemicals. Product applications include bags, gloves, transparent packaging for individual items and shower caps.



A soluble plastic bag currently costs 1.5 times that of a normal plastic bag



- No oil needed to manufacture the product
- Marine-safe
- Doesn't pollute water or soil



- Early stage of development: limited applications
- Doesn't reduce the dependency on single-use items

## BAMBOO

Bamboo is a type of fast-growing, regenerative plant, with a hollow stem.

Applications include: tableware, straws, cutlery, reusable makeup pads, fabric, toothbrushes, combs, cups, boxes, glasses or toilet paper.



Generally more expensive than plastic



- Less malleable than plastic, although it can be mixed with melamine resin (a toxic chemical) to be given a particular shape
- If used as a pulp (e.g., to make paper or fabric) the manufacturing process can be energy-intensive and involve chemical treatment process



- No oil needed to manufacture the product
- Highly resistant and hygienic
- Uses little water use and no pesticides to grow
- Fast growing and widely available

## EDIBLE ITEMS

Items made of edible material (different types of flour like wheat, millet, sorghum or rice, seaweed etc.). Current applications include cups, cutlery, straws or even tableware.



Competitive with bioplastics but depends on the product



- Mixed consumer feedback depending on use



- No oil needed to manufacture the product
- Innovative
- Zero-waste when eaten (no discarding cost)
- Highly biodegradable in normal conditions



## 4. RECYCLE IT

**A**s said in the introduction, **the recycling sector in Hong Kong has structural shortcomings** that need to be addressed at policy level. However, on the waste hierarchy, after avoiding and replacing plastic items, recycling is the next best option before landfill disposal. Recycling is hard, some even say it's broken. Before the coronavirus, **only 9% of all the plastic that was thrown away globally was recycled**. Now, with the global pandemic, the sector has taken a serious hit due to the drop in oil prices mentioned above, the measures of social distancing, the citywide lockdowns or the site closures due to quarantine. In East and South-East Asia especially, the region relies greatly on **informal waste pickers** for recycling its plastic, but it is also a population that is particularly vulnerable. It makes recycling even more challenging, and this is why it is so low on the waste hierarchy pyramid. However, if you followed all the previous steps, recycling should be easier: by now you should have way less plastic anyway, and the items that are left are either compostable or easier to recycle.

**“ BEFORE, ONLY 9% OF ALL THE PLASTIC WAS RECYCLED. NOW, WITH THE GLOBAL PANDEMIC, THE SECTOR HAS TAKEN A SERIOUS HIT.**

Recycling is an obscure science, with glyphs and alien words promising to turn trash into gold. So a first step to efficient recycling is to **educate and engage your staff about the how and why you recycle**. If recycling is expensive, it is first because it needs quality raw material, namely properly sorted and clean feedstock, and if no one sorts it at the source, someone needs to be paid or a machine needs to be bought to do it afterwards. If that critical step is missed, recycling becomes much more troublesome, if not impossible, without proper infrastructures like MRFs (Material Recovery Facilities), which are very expensive.

If putting recycling bins in the room is good, explaining what exactly should go in the bin is better, and **knowing what can actually be recovered in your city is paramount**. The first trick about recycling is the logo on the item. It will help you determine which type of plastic the item is made of, and if it is actually recyclable or not.

As a start, next page is a **list of all the categories of plastic** that you can find on the market, their different applications and their overall recyclability.

## TABLE 2: RESIN IDENTIFICATION CODES



Name	Example of use	Recyclability
<b>Polyethylene Terephthalate</b>	Water and soft drink bottles, salad domes, biscuit trays, salad dressing and peanut butter containers, microbeads	<b>Very high.</b> Recycled into new bottles and clothes.
<b>High Density Polyethylene</b>	Milk bottles, freezer bags, dip tubs, crinkly shopping bags, ice cream containers, juice bottles, shampoo bottles, chemical and detergent bottles	<b>High.</b> Recycled to produce new bottles or pipes.
<b>Polyvinyl Chloride</b>	Cosmetic containers, commercial cling wrap	<b>Low</b> due to additives
<b>Low Density Polyethylene</b>	Squeeze bottles, cling wrap, shrink wrap, grocery bags	<b>Low</b> owing to low economic incentives and frequent contamination with e.g. food.
<b>Poly-Propylene</b>	Microwave-safe dishes, ice cream tubs, potato chip bags, and dip tubs, disposable cups, plastic straws	<b>Low:</b> the wide range of types and grades makes recycling difficult.
<b>Polystyrene</b>	CD cases, water station cups, plastic cutlery, imitation 'crystal glassware', video cases	<b>Low</b> owing to low economic incentives.
<b>Expandable Polystyrene</b>	Foamed polystyrene hot drink cups, food takeaway clamshells, foamed meat trays, protective packaging for fragile items, fruit protection	<b>Low</b> owing to low economic incentives.
<b>Polycarbonate, Polylactic Acid, others and multilayered</b>	Water cooler bottles, flexible films, multi-material packaging, bioplastic packaging	<b>Low</b> because of the multi-material components and specific disposal facilities needed.

Sources: Ellen MacArthur Foundation (The New Plastic Economy report), TUI Plastic Reduction Guidelines for Hotels and The European Union (Best Environmental Management Practices in the Tourism Sector)

As you can see in the list, **only three categories are actually easily recyclable**, and if you fail to avoid or replace plastic, you should concentrate on these categories and on the ones that can be recycled in your city. It is the same if you decide to replace plastic with another material: you should make sure that there is a disposal method that is available locally. It is also important that you **inform your guests** about how recycling works in the city, as your establishment is most likely the first interface they have with local habits. According to a study conducted by the European Union<sup>20</sup>: “*it is not a lack of motivation that prevents [tourists] from sorting waste, but scarce information about waste facilities, inadequate infrastructure as well as scarce information about consequences.*” If your municipality doesn’t recycle plastic you can still look for local initiatives that will take it and recycle it.

In Hong Kong, the government has a dedicated webpage for NGOs taking care of plastic in the city. Except from NGOs, initiatives are usually carried by the **private sector**, like the Drink Without Waste campaign, which recuperates soft drinks PET bottles and carton packs, or Circular City, which is looking into ways to combine Artificial Intelligence (AI), the Internet of Things (IoT) and a system of rewards in local restaurants and cafés to encourage people to sort and clean their recyclables and deliver them to special bins. The plastic recovered will then be turned into raw material (pellets), ready to get a new life while strengthening community bonds.

These kinds of initiatives from companies also show that **it is possible for a particular sector to address its environmental issues in a collective way and engage other actors.**

This is how **systemic change** is created.





## 5. THINK SYSTEMIC

Waste is a complex issue. Companies shape the wants of the consumers through marketing and the products they make available on the market, but consumers are also complicit in perpetuating the linear product consumption model through their buying patterns, using the products and then discarding it. Ultimately, consumers and companies comply with laws and regulations endorsed by national or local governments. So **who should be responsible for waste?** Who should make the first step?

The simple answer is: everyone. The more complex one is: **everyone, by including everyone else in a system-level approach.**

A 2020 study of the Fast Moving Consumer Goods (FMCG) sector by McKinsey & Company shows that, beyond the quick wins of reducing packaging weight, the actors of the sector also need to commit to sustainability through emphasizing recycling/recycled content, reducing total packaging use, and finally, through innovating and promoting systemic change. This is the last step on the sustainability path, but also the hardest to reach, mainly because it cannot be achieved by individual stakeholders but must involve all the actors throughout the value chain:



Collaborate with **suppliers** to promote innovative solutions, such as adopting new materials or new consumption models like supplier take-back systems, embodied on a consumer goods level by the US company Loop, or product-service system approaches<sup>22</sup>, where consumers do not demand products per se, but are rather seeking the utility provided by those products, thus encouraging rental and leasing solutions.



Engage **guests** through proper communication and incentivisation to adopt sustainable behaviors.



For international groups: changing **brand standards** allows solution implementation throughout the whole group, like the Radisson did.



Interact and partner with **other actors within the hospitality industry** to share good practices and stimulate change at the sector level, so as to foster changes at the policy level, like for the Drink Without Waste initiative.



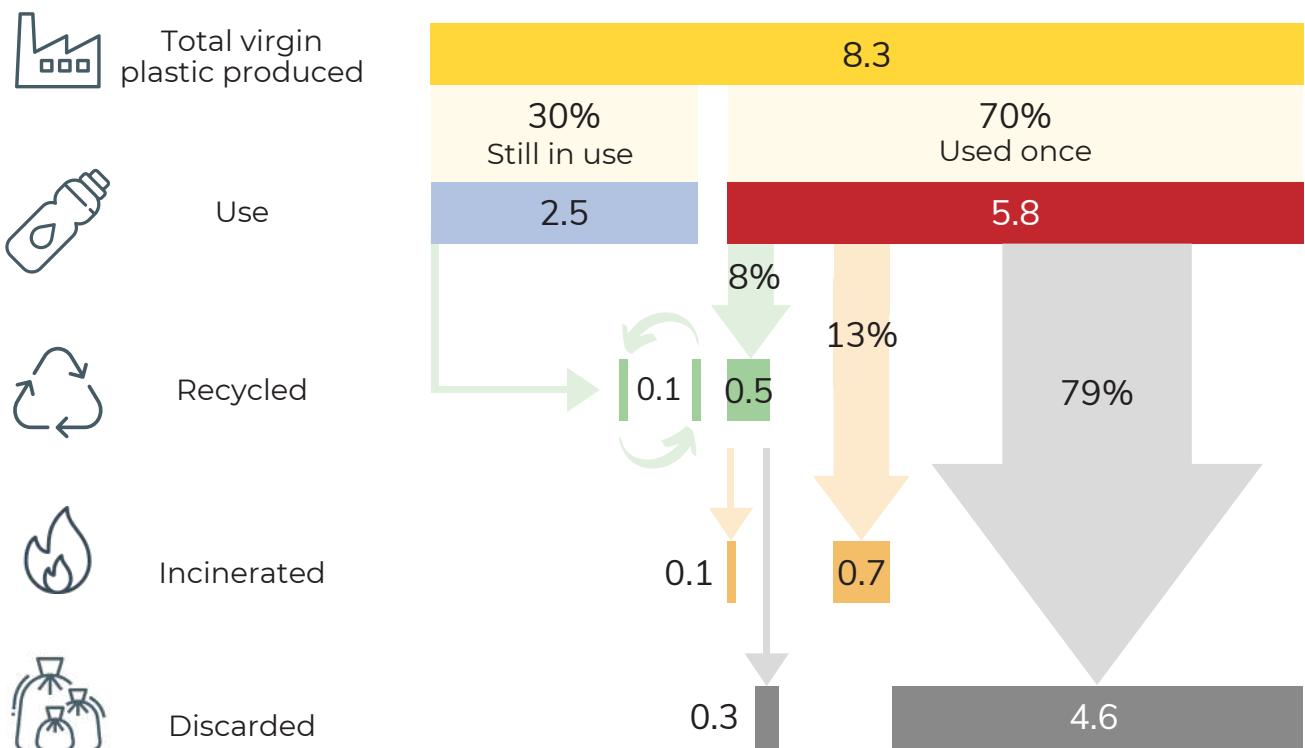
Partner with **environmental advocacy groups and academic sustainability engineering groups** like G.R.E.E.N. Hospitality at a regional level or the UN's Global Tourism Plastics initiative at international to foster innovation and share good practices.

Now, if we take a step back from the McKinsey study, what it says in essence is that, when it comes to plastic, actors within the hospitality industry should **reduce** its use, **replace** it with more sustainable material, **recycle** it, **think about it differently**, that is not as a cheap, disposable material which becomes worthless when thrown away but rather as a **valuable resource that should be recovered**.

The problem is not plastic itself, the problem is **what we made out of it**. We turned it into a universal solution, even when there was not a universal demand: even when some guests took their own toothbrushes with them, the single-use plastic ones are still made readily available. The study also hints that the hospitality industry actors should **think differently about themselves** when it comes to the plastic issue: not as an individual company but as **a part of the plastic value chain**. Along that chain, plastic loses its value when it is discarded in the landfill. To recapture that value, we need to increase the circularity in this chain, with the active participation of **all the actors**.

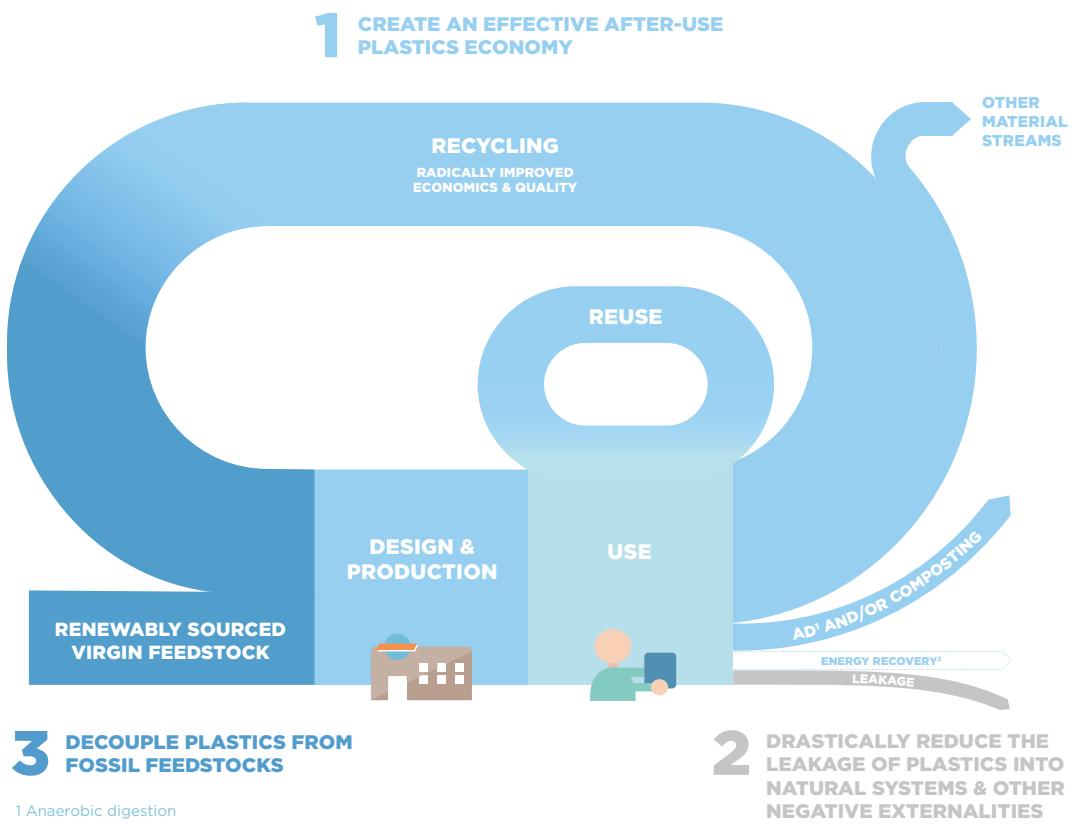
Yes, what we are trying to do here in this toolkit is to advocate for **more circularity within the hospitality industry** in order to create an economy that is restorative or regenerative by intention and design<sup>21</sup>, in opposition to our current linear "take-make-use-dispose" economy. Both models are illustrated below in Figure 3 and 4.

Figure 3: Global plastic production and use: illustration of the current linear economy (1950-2015, bn tonnes)



*Source: The Economist*

Figure 4: Ambitions of the New Plastic Economy: a circular approach



1 Anaerobic digestion

2 The role of, and boundary conditions for, energy recovery in the New Plastics Economy need to be further investigated

Source: Project Mainstream analysis.

Source: *The Ellen MacArthur Foundation*

The **Circular Economy model** is gaining momentum as it highlights the importance of harnessing creativity and innovation to create value. In the report "Towards the Circular Economy Vol. 3: Accelerating the scale-up across global supply chains", the Ellen MacArthur Foundation found that "over **US\$1 trillion a year** could be generated by 2025 for the global economy - and **100,000 new jobs created** for the next five years if companies focused on encouraging the build-up of circular supply chains to increase the rate of recycling, reuse, and remanufacture". They also predict that "Circular business models will gain an ever greater **competitive edge** in the years to come because they create more value from each unit of resource than the traditional linear 'take-make-dispose' model."

COVID-19 is as much a stress test as an opportunity for us all to take stock of the unsustainable lifestyle and business models pre-pandemic, and **innovate our way forward** into a more sustainable future post-crisis. Almost overnight, global supply chains are disrupted, flights grounded, "overtourism" disappeared from news headlines, as health-care systems are overwhelmed and unemployment rates continue to rise. Everywhere we look, there are tragic losses of human lives, and alarming increase in single-use personal protective equipment waste. As the world pledges for a "new normal" after the novel coronavirus crisis, the hospitality industry, with its future contingent on sustainable development, has **the potential and responsibility to pave the way towards more circularity at the industry-level so as to create sustained changes, recapture value, and preserve the environment**, especially in Hong Kong.



# USEFUL RESOURCES

## KNOWLEDGE SHARING PLATFORMS

- G.R.E.E.N. Hospitality: regional platform to promote dialogues between all related industries in the hospitality sector, to improve sustainability measures, create initiatives for positive environmental impacts and share good practices
- International Tourism Partnership: international collective platform for hotel industry leaders to share ideas, build relationships and work collaboratively
- UN's Global Tourism Plastic Initiative: a UN initiative to help and encourage the hospitality industry to achieve a set of concrete and actionable commitments by 2025 regarding single-use plastics and plastic use

## LOCAL EXPERTS ON PLASTIC

- Food made Good Hong Kong: The local branch of a UK-based knowledge sharing platform and consultancy firm dedicated to help foodservice businesses to operate more sustainably.
- Plastic-Free Seas: Environmental charity dedicated to fighting plastic pollution on Hong Kong beaches and waters through education and action campaigns.
- The Purpose Business: Network of experiences sustainability and business practitioners helping companies create positive impact.

## OTHER USEFUL PRACTICAL GUIDES

- Green Hotelier's [Guide to Increase Employees Engagement In Recycling](#)
- Green Hotelier's [Guide to Green Procurement](#)
- WRAP [Guide to Engage Suppliers in Sustainability](#)
- WRAP [Waste Mapping guide](#)
- Travel Without Plastic [Guide on reducing Single-Use Plastic in the Hospitality & Event Sector](#)
- TUI Group's [Plastic Reduction Guidelines For Hotels](#)

## OTHER USEFUL RESOURCES

- The European Commission's [List of Best Environmental Management Practice in the Tourism Sector](#)
- UN's One Planet Network [Webinar on Tourism Value Chains](#)

## REPORTS ON PLASTIC AND THE CIRCULAR ECONOMY

- The Ellen MacArthur Foundation [latest report on Circular Economy and Plastic](#)
- The Ellen MacArthur Foundation [New Plastics Economy Report](#)
- [UN Environment Report](#) on the Role of Packaging Regulation in Driving the Circular Economy in the ASEAN Region
- McKinsey & Company report "[The drive toward sustainability in packaging - beyond the quick wins](#)"



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Soap Cycling, a Hong Kong based charity, works with students, hotels, corporates, volunteers and WASH charities across Asia to recycle soap in a movement to reduce preventable hygiene-related diseases and suffering by distributing this life-saving resource to where it is needed the most. Soap Cycling is part of the Foundation for Shared Impact (FSI) portfolio and hosts students from the University of Hong Kong through its Social Venture Management (SVM) Course.



Foundation for Shared Impact's mission is to enable social entrepreneurs and high-impact organizations to maximize social value and minimize the barriers. FSI works with the University of Hong Kong - Faculty of Business and Economics to deliver its Social Venture Management (SVM) Course which connects students through internships with impactful organisations solving the world's most pressing problems.



# CREDITS

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**G.R.E.E.N. Hospitality**

**G.R.E.E.N. Hospitality** is a sustainability program of Soap Cycling that encourages businesses to work together to bring about innovative, sustainable, cross-border advancements to the global hospitality industry. This is achieved through knowledge sharing, research, partnerships and incubation of solutions.

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