

Plastic-free holidays, Balearic Islands

Pre-study results – summary



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1) Background “The plastic waste problem”

Every year, up to 13 million tons of plastic waste end up in our oceans. According to estimates, about 80% of the garbage found in the sea is plastic waste. In addition to environmental problems, the waste also causes economic risks, e.g. for tourism in coastal regions suffering from polluted beaches. The tourism industry is not only affected by the impact of the high volume of plastic, but also contributes to the creation of plastic waste. The Mediterranean Sea is one of the most effected regions worldwide. An EU survey shows that 40-50% of the waste in the Mediterranean comes from touristic use, as the amount of waste during holiday season increases accordingly.

In January 2018, the European Commission defined a European strategy for the future use of plastics: All plastic packaging on the EU market shall be recyclable by 2020. Furthermore, the consumption of disposable plastics shall be reduced and the use of microplastics limited.

Furthermore, the Government of the Balearic Islands has set itself the goal to reduce the amount of waste by 10% by 2021 (compared to the 2010 baseline) and by 20% by 2030, passing the law "Ley de residuos y suelos contaminados". The law provides, inter alia, a ban on the sales of certain disposable plastic products (e.g. straws, plastic cutlery and crockery) and determines the installation of water fountains in public buildings as well as an obligation for companies of the HORECA sector to provide non-packaged water free of charge.

2) Project “Plastic-free holidays” / Methodology of pre-study

In order to develop innovative solutions to reduce plastic pollution to fulfill the aims of and go beyond the provisions of this law, Futouris e.V. and the Government of the Balearic Islands started a two-year cooperation from 2019 with the following aims:

- Reduction of plastic waste in the tourism industry
- Improved recycling of unavoidable waste

In the preliminary stages of the Futouris industry project "Plastic-free Balearic Islands", a basic study on the subject was carried out by the Futouris e.V. team with academic support by Leuphana University Lüneburg and the Futouris Scientific Council.

The aims of the pre-study were to analyze plastic waste volumes, composition and disposal systems at participating hotels in order to identify potentials for reduction and improved recycling. Potential solutions (innovative ideas for plastic reduction, alternative products and recycling strategies) were proposed and discussed as well as

the associated challenges to develop clear recommendations for hotels. Furthermore, the determination of a joint basis for the target-oriented preparation of further project steps.

Futouris visited 10 Majorcan hotels from four different tour operators (DERTouristik, schauinsland-reisen, Thomas Cook, TUI) from 13th until 17th of May. The hotels belong to different hotel chains/brands such as Nordotel, Grupotel, SENTIDO, Sunwing, Cooks Club, Primasol and Hipotel.

The visits took around half a day and contained the following steps:

- Analysis of plastic waste volumes and compositions: Identification of major plastic waste drivers as well as plastic articles which can be easily banned / replaced
- Interviews with hotel management and selected employees from F&B and housekeeping: Identification of already implemented measures, future potentials and challenges in terms of reduction and improved recycling of plastic waste, presentation and discussion of possible alternative products and solutions.
- Guest survey to determine perceptions of customers regarding plastic products currently used in the hotel, potential substitutes and the recycling system in the hotel as well as the destination.

3) Results

3.1 *Reduction of single-use plastic articles*

In all hotels single-use plastic items are used. The use varies from hotel to hotel. Some hotels use a lot of single-use plastic items in the restaurant, bar and kitchen area, others more within the guest rooms. In general, the hotels are very engaged to reduce the amount of (single-use) plastic articles and have already improved a lot, i.e. by replacing plastic items such as straws, cutlery or mini toiletries.

3.1.1. *F&B*

3.1.1.1 *Best practices*

- *Straws*: Almost all visited hotels have already replaced plastic straws with paper straws (apart from leftovers from the season before, which are currently being used up, before switching). Moreover, many of the hotels are following a “no-straw-policy”, where even paper straws are only given out on request by customers in order to reduce the amount of used straws. One hotel has entirely banned straws from their F&B outlets. No negative guest feedback on these measures has been reported by the hotels. A lot of plastic waste can be avoided by these measures, i.e. hotels used between 212.000 and 350.000 plastic straws in 2018.

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- *Water refill stations and reusable cups:* Some hotels have installed water refill stations with reusable glasses or hard plastic cups in restaurant, pool and bar areas where guests can refill their cups whenever needed. Two hotels were using special “cup bins” provided throughout the premises, where cups can be placed by the guests so that they can be easily collected, cleaned in a central location and handed back to the bars. Guests are informed about this scheme with signs above or on the bins. One hotel even provided written information on the reusable cups to guests at check-in. These measures have a high impact on reducing plastic waste, as shown by the figures from one hotel, which was using up to 800.000 plastic cups per year before changing to reusable cups.



Images: sign “No plastic straws” at bar, disposal bin for reusable cups

Some hotels also use water refill stations with paper cups instead of plastic, i.e. within the spa and gym area. Several hotels have banned all plastic bottles and are using glass bottles instead.

- *Plastic cutlery and crockery, plastic lunch boxes:* Are rarely used in the hotels, some hotels have switched to cutlery made of wood or biodegradable /compostable material for take-away boxes.
- *Single-use portions on buffet:* Almost none of the visited hotels were using plastic-wrapped single portions on the buffet, i.e. for jam, butter or ketchup. The only hotel, which was still offering these, was only using up the remains of the past season and was also planning to ban these.

3.1.1.2 Major improvement areas

- *Plastic bottles:* Plastic water bottles are still very common in most of the visited hotels and cause a lot of plastic waste. Hotels provide water in plastic bottles in the guest rooms (see below), but also plastic bottled water is often still offered for sale in the hotel bars.
- *Kitchen: Plastic packaging for deliveries:* Almost all hotel managers stated that the biggest proportion of plastic waste in their hotels comes from the packaging in which all the deliveries of food, drinks etc. are wrapped. Only one hotel manager has addressed this issue with the suppliers.
- *Sugar, single-used sachets:* Salt and pepper are already used in shakers or mills whereas sugar is mostly found in plastic packaging in the hotels, which causes a huge amount of waste as almost every guest uses sugar at least once during his / her stay. Furthermore, tea bags and milk portions are also packed in plastic. Every second guest uses a tea bag during his / her stay according to the purchase of one hotel.



3.1.1.3 Challenges

- *Purchasing costs:* Plastic items are used in the hotels because of the low costs. According to the hotel managers, non-plastic alternatives are always associated with a higher cost compared to plastic. However, this challenge can be overcome, when the switch to the alternative materials is accompanied by an overall reduction in the use of the respective products. I.e. hotels that are applying a “no-straw-policy” in combination with offering paper straws on request have reported that the associated cost increase is insignificant. Furthermore, hoteliers report that if reusable items are used instead of single-use articles, the higher initial purchasing costs are quickly amortized. One issue exists however with reusable items like hard-plastic cups, as some hotels report that these are often thrown away or displaced by customers, so that new cups have to be purchased continuously. For example, one hotel that is providing reusable cups around the pool and beach area loses around 300 of these cups every week as guests do not return the cups in the bins provided.
- *Higher workload / staff costs:* Another challenge associated with reusable items instead of single-use articles is the higher work load and thus increased staff costs. I.e. one hotel was still using single-use plastic cups for the pool area, as more staff would be required to collect and clean reusable hard plastic cups.

- *Hygiene & safety considerations:* Many hotels use plastic articles because they fulfil the requirements regarding safety (i.e. in pool areas) and hygiene (i.e. plastic water bottles instead of dispensers, covered / wrapped food). Some reusable alternatives like straws made from metal or glass don't qualify for use in hotels according to the interviewees, as hygiene could not be assured.
- *Dialogue with suppliers:* For many packaging items, i.e. for food deliveries, an extensive dialogue with suppliers is needed to work towards more sustainable solutions. This is often difficult or impossible for the individual hotels to handle, as the general purchasing decisions are made by central departments within their hotel chains /groups.
- *Staff & guest communication:* According to the hotels and our assessment the communication to the guests (and staff) can be improved in order to raise more awareness and improve the guests support. Most of the participating hotels do not communicate the measures they have implemented fully, the background and reasons or how the guests can support. Hotels do train their staff but there is still potential to improve and raise more awareness so that the staff is supporting the measures as well and can give information to guests.
- *Type of board / revenue:* Another challenge lies also in the type of board hotels are offering. E.g. if a hotel is offering only half-board it is difficult to provide a water refill station due to concerns that guest won't buy drinks at the bars anymore.

3.1.2 Guest rooms

The amount of single-use plastic items inside the guest rooms differ very much from the respective hotel and the hotel star-category it belongs to. In some guest rooms a lot of plastic items were found, in others there was not a single plastic item.

3.1.2.1 Best practices

- *Dispensers:* Most of the hotels have already installed dispensers for soap, shampoo and shower gel instead of providing it in small bottles. The benefits of this measure are not only reducing the amount of plastic waste but also reducing the amount of work for the room maids as they just need to refill the dispensers when empty/ before the new guests arrive. Some hotels are still offering the mini toiletries but only on request at the reception. One hotel has also changed the packaging from plastic to paper with soy ink.
- *Bin bags:* Bin bags are usually only used in the bathroom bins. Three hotels have switched to organic bags even though they are more expensive.



- *Toothbrush cups & toilet banderole:* Almost all visited hotels have banned the use of hygiene banderoles around the toilet and have replaced plastic toothbrush cups with actual glasses.

3.1.2.2 Major areas for improvement

- *Amenities:* Many of the visited hotels are providing amenity kits in the bathroom for the customers, i.e. with shower cap, toothbrush, shoeshine, comb etc. These are mostly single-use plastic items that are wrapped individually in plastic. Most of the hotels which are offering these state that this is due to the fact that the provision of such amenities is required to receive 4* recognition.
- *Plastic bottles:* In many hotels plastic bottles of water are provided in the guest rooms upon arrival as this is a standard set by the tour operator's concept or hotel chain.
- *Slippers:* If a hotel is providing slippers for its guests these are always wrapped in plastic. According to most hotels the reason is the guest's expectations to receive a cleaned and hygienic product which was not used by another guest before.
- *Coffee and tea:* Many hotels have coffee/tea stations in the room and the complimentary coffee and tea (including milk and sugar) usually comes in plastic packaging, sometimes coffee capsules are used. Hotels state that the moist weather in winter and a lack of suppliers offering alternatives are the reasons for purchasing plastic wrapped tea and coffee bags as well as coffee capsules.
- *Candies:* Welcome gifts such as candies or sweets which are placed in the rooms upon each arrival are always wrapped in plastic. E.g. one of the participating hotels with more than 40.000 guests bought over 20.000 candies in 2018.

3.1.2.3 Challenges

- *Hygiene considerations:* Guests are used to get certain products wrapped in plastic to ensure that they haven't been used before, i.e. slippers. Clever solutions have to be found on how to assure the guests of the cleanliness of these items while not using plastic packaging.
- *Standard requirements by hotel chains/brands:* There are certain requirements by many hotel chains or brands, like plastic water bottles provided for guests upon arrival, which have to be followed in order to comply with the chain/brand concept. Solutions to reduce plastics which counteract such requirements need to be discussed and agreed on with the central brand management and purchasing departments of the chains.
- *Standard requirements for hotel category:* Other plastic articles are provided by the hotels, because this is necessary to fulfil requirements to achieve a 4*-recognition.

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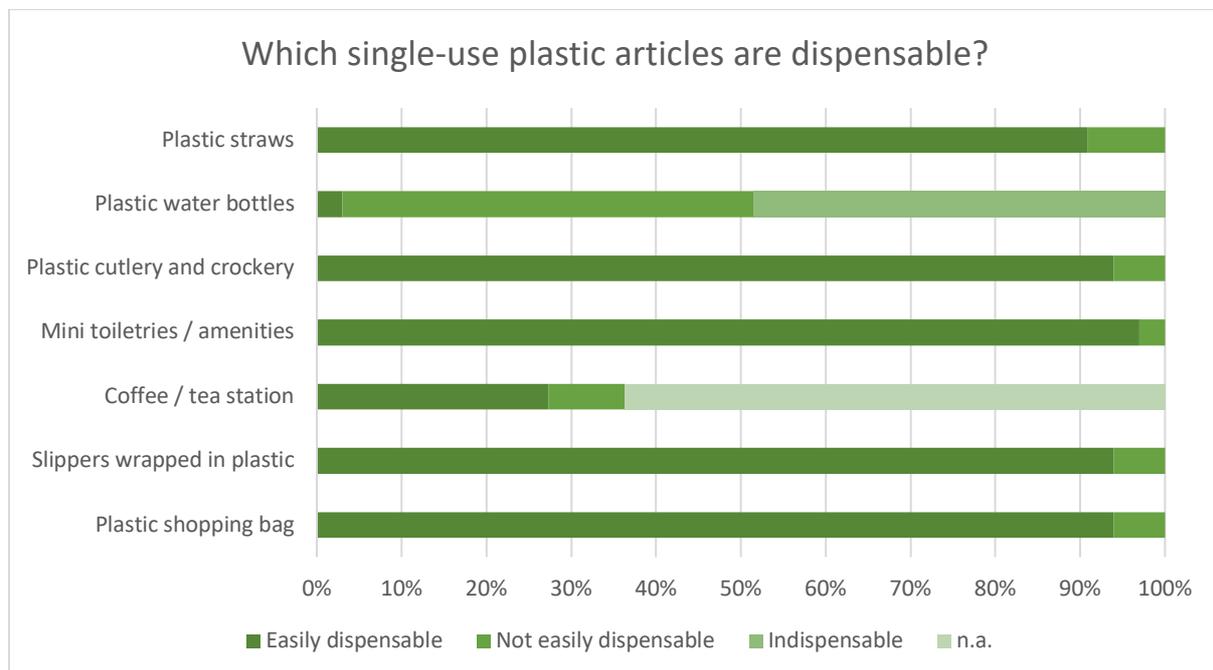
To find solutions for this issue, a dialogue with the standard-setting organizations/ committees is needed.

- *Communication:* As well as within the F&B area the communication to the guests (and staff) can be improved in order to raise more awareness and improve the guests support. Staff and guests alike need to be aware of what the hotel is doing and how they can support the hotel's engagement.

3.1.3 Results guest survey

Most of the interviewed guests haven't noticed a plastic waste problem in Mallorca / in the areas they stayed. Some noticed however that a lot of effort is undertaken to provide guests with clean beaches, i.e. one guest mentioned a boat collecting rubbish each day in the bay close to the hotel. Moreover, they are very aware of the plastic pollution problem worldwide/ in general and have positively noticed some of the measures "their" hotel has implemented (mostly the paper straws).

We asked 33 guests which single-use plastic articles are dispensable, which are more difficult to forgo and which are indispensable. The results are shown in the following chart:



According to our survey over 90% of the interviewed guests can easily forgo plastic straws, plastic cutlery and crockery, slippers wrapped in plastic and plastic shopping bags.

Regarding straws, alternatives which have been positively accepted by the interviewed guests are edible versions. While paper straws quickly soften when in the drink, edible straws stay solid for a longer time and do not leave a strange taste like the paper

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straws. Reusable versions from metal or glass have not been very positively perceived due to hygiene concerns.

Regarding mini toiletries, the majority customers stated that they are bringing their own products anyways, so the provision of mini toiletries is not necessary. Some say that certain amenities like tooth brushes should be available on request.

Regarding coffee/tea stations in the rooms, those guests who had this service in their room said that it was not necessary to have it in the room and that they would also be satisfied with a coffee/tea station in the hallway.

Slippers wrapped in plastic are usually easy to forgo as many guests say they don't need them at all. Other guests expect to receive them clean anyway, while a small percentage of the interviewed guests have hygiene concerns. However, if the slippers are visibly clean and unused, they needn't be wrapped in plastic.

Plastic bags are also deemed very easy to forgo as guests from Germany are already used to not using plastic bags anymore. Paper bags are deemed a very good alternative and some guests even say that they are bringing their own bags when shopping on holiday.

For almost all guests however, it is difficult to forgo plastic water bottles as they are easy to handle, they can be taken on trips and most of the guests do not bring their own bottle on holiday. There is still the general opinion by many Germany guests that the tap water in Spain is not drinkable. Also, some guests mentioned that plastic bottled water is very cheap in Mallorca. Water in glass bottles is mostly seen as too heavy and guests say that this option is not available in many supermarkets on the island. However, the majority of the interviewed guests were very open to using own water bottles and water dispensers in their hotels and on excursions in the destination, if the available water was definitely sanitary.

3.2 Separation and recycling of (plastic) waste

3.2.1 Status Quo

The disposal, separation and recycling processes depend on the municipality the hotel is located in. Some municipalities provide good disposal and recycling systems for the different types of waste such as plastic, paper and glass. Others only provide disposal systems for one or two types of waste.

In general, most hotels separate their waste and provide disposal and separation points for the guests in the hotel's premises. In most cases, waste is separated according to glass, paper, plastic and general waste. The waste from the disposal points and from the different hotel areas are brought to big containers (one for each

type of waste) by the staff. The waste is then collected by the municipality or contracted disposal companies. For specific forms of waste such as big furniture or electronics a private company must be hired. At the end of the season the municipality provides an overview with the amount of collected waste and the resultant fees to the hotels.

The fees for the collection and disposal on Mallorca are set by the municipalities individually. Some hotels are charged for waste collection according to the weight of each type of waste, others are charged according to number of rooms or guests. In some municipalities the fees differ depending on the type of waste; hotels pay less fees for waste that can be recycled. The more general waste a hotel generates the higher are its costs. In other municipalities the fees don't differ re the type of waste, which means there often is no incentive for separating waste correctly. In some municipalities there are fines if the waste is not sorted right.

3.2.2 Best practices

Disposal and separation possibilities were found in almost all hotels. Mostly waste can be sorted in the categories plastic, paper, glass and general waste. In addition, organic waste is separated within the kitchen and restaurant areas of the hotels.

The separation bins are mostly found in the back office areas for staff to use. In addition, most hotel provide separation bins also for the guests, mostly in the pool area of the hotels. Also there is high awareness of the dangers of plastic waste in the pool and beach area, as they can be blown away by the wind into the sea, adding up to the problem of plastic pollution. Therefore, many hotels advice their staff to quickly pick up any plastic that the guests are using, i.e. ice cream packaging.

One hotel even provided separation stations for the guests in the hallway of the guest rooms on each floor. The same hotel is employing two staff members just to maintain the correct collection and disposal of separated waste throughout the hotel.



Images: Recycling Stations for customers in pool area and in the hallway

3.2.3 Major areas for improvement

In most hotels, so far there are only very few possibilities for the guests to separate the recycling waste. Most hotels only have separation bins/stations available in the pool area. In many cases those are also not very clearly marked. Separation stations in the guest room areas are scarcely found and no hotels are providing separation possibilities directly in the rooms. This is mainly due to the fact that this is not deemed necessary as guests don't have a lot of recyclable waste in their rooms. According to most hotels, the cleaning staff is picking up any recyclables like plastic bottles or newspapers from the mixed bins in the rooms to put in the correct recycling bin in the back offices or at their cart.

In addition, guest communication around the issue of recycling could be improved. So far, in most hotels, only very limited information is given.

Furthermore, the recycling facilities in the F&B areas of many hotels could be improved. Often the separation possibilities in the restaurant and bar areas are not very clearly marked or the bins for the different types of waste are scattered throughout the back office areas. This is mainly due to the fact, that there is only limited space in the restaurant or bar areas to provide separation possibilities. Therefore, sometimes there is even only one bin for all types of waste provided.

In addition, although all hotels state that they train their staff on recycling, staff doesn't always separate the waste correctly. Reasons for this are mostly the missing awareness, knowledge, lack of time, the high fluctuation of the staff and sometimes motivation.

3.2.4 Guest survey

In those hotels that provided well-noticeable and clearly marked possibilities to separate the waste, these were appreciated by the guests. In these cases the guests found it easy to separate within the hotels as there are a lot of waste disposal stations which are easily accessible. In those hotels where the recycling stations were not prominently placed/ clearly marked, guests stated that they were not aware of any separation possibilities in their hotel.

Furthermore, on the island of Mallorca, guests also had only rarely noted the provision of recycling bins. Many said that these were available in the airport, while some stated they had also seen them at the beach. In other places on the islands, guests were not aware that recycling bins were provided.

To make recycling easier for the guests, they would like to see more or better noticeable separation stations in the hotels as well as an easy access and more bins in the streets and at the beaches.

4) Summary of recommendations for improvements

4.1 Reduction

4.1.1 F&B

- *No-straw policy* combined with an offer of *paper or edible straws* on request
- *Water refill stations* with filtered tap water in restaurants and bars combined with *regular glasses or hard plastic cups* (where needed due to safety considerations). *Collecting stations* for the hard plastic cups in the pool area combined with *strong guest communication* to reduce additional workload for staff. Collected cups can be *cleaned in a central location* (i.e. large dishwasher in kitchen) if the space in the bar area is not sufficient. To take away, i.e. on excursions, *refillable bottles* made of steel or similar can be provided /sold by the hotel. It should be allowed to refill these at the water dispensers. In case of revenue considerations, provide glass bottled water for sale next to free filtered tap water.
- Replace *plastic spoons for ice cream* with regular spoons or edible versions, e.g. made from cocoa fibres.
- Offer further *disposable cutlery and take-away boxes* only as an absolute exception, then using compostable versions, i.e. made from wood.
- Provide sugar in *sugar shakers* with a rice corn in each shaker to avoid the sugar getting moist.
- Provide *tea bags without a wrapping* or find suppliers that provide teabags wrapped in paper.
- Provide *jam and sauces* in bowls, glasses or similar on the buffet instead of using single portions. Provide *butter pieces* on ice or a chilled cutting board instead of in single wrapped portions.
- Assess the *plastic packaging for deliveries* to find out which of the packaging is *unnecessary*, which products can be delivered in *reusable containers* etc.
→start a *dialogue with your suppliers* (directly or via central purchasing of your hotel group) to work on solutions to reduce plastic packaging waste.

4.1.2 Guest rooms

- Install *soap/ shower gel / shampoo dispensers* instead of providing mini toiletries
- Remove *all amenities / care sets* from the rooms and provide them on request at reception. Use strong guest communication in the room to inform about the benefits of this change.

- Use *bin bags* only in the bathroom bin.
- Refrain from *using plastic wrapping* for the toothbrush glasses and the plastic *hygiene banderole* around the toilet. Guests expect these items to be clean and don't need to be made aware of this by using these unnecessary items.
- Refrain from providing *water in plastic bottles* in the guest rooms. Instead install *water dispensers in the hallways* and provide nice-looking bottles or carafes in the guest rooms for the guests. The bottles or carafes need to be cleaned on departure and afterwards furnished with a seal or lid, so that new customers know they are clean.
- *Don't provide slippers in each room*, but only on request. Look for suppliers offering slippers only with *minimal packaging*, i.e. a textile banderole to show that they have been cleaned. Look for suppliers that will *take them back* and clean them so that they can be reused and don't have to be thrown away.
- If you provide *coffee/tea stations* in the rooms, look for solutions to avoid waste, for example use ground coffee with French press machines and tea bags without wrapping in nice-looking boxes to prevent them from getting moist. Provide sugar in shakers here as well.
- *Raise awareness of guests and staff alike* by communicating the measures and giving background information on the reasons.

4.2 Recycling

- Provide *clearly marked separation stations* in the hallways for use by the guests for any recyclables they have in the rooms.
- Provide *more and better marked separation bins /stations* throughout the premises of the hotel for the guests to use.
- Improve *recycling stations for staff in F&B areas*, i.e. by providing smaller recycling containers like ice buckets or little plastic buckets (reused from deliveries) directly at the waiters' stations or behind the bar. When these are full, they can be emptied at a central location in the back office where larger bins are provided.
- *Communicate with guests* on the reasons for and benefits of recycling. Guests need to be aware of what the hotel is doing and how they can support the hotel's engagement.
- *To improve staff awareness and motivation* for a better recycling, enhance staff trainings on the matter with emotional aspects, i.e. by showing films with information on the consequences of plastic pollution directly on Mallorca/ in the Mediterranean