

# Waste – Course 3

## MOOC

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REDUCE CONSUMPTION,  
REFUSE TO PRODUCE WASTE





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## Introduction

Recycling can be an answer for societies to reduce consumption of raw materials and preserve nature. However, it has its limits.

### # Non-compliance with sorting instructions

As citizens and consumers, we are often lost in the multitude of contradictory information reaching us. But then, what should we believe? While some will complain that they are not sufficiently informed on the issue of sorting, others, on the contrary, feel overwhelmed by the profusion of information. Whether out of convenience or habit, many consumers do not take enough time to inform themselves about the specifics of sorting instructions in the place. On average, around 10% of the waste collected is refused before or during sorting. But in the end, is poor sorting at source so serious?

- When there is pollution in a sorting bin, i.e. when too many elements are suspected of being "non-recyclable", it is the entire bin that is sent directly to the "refusals".
- Smaller rejects are sorted by hand and join the household waste, hence the extra cost at the time of sorting and landfilling. This implies labor time, additional transport costs, etc...

### # The financial cost of recycling materials

The recycling of certain plastics is not financially profitable if we consider the economic impact of environmental degradation and pollution. Although easily recyclable, polystyrene thrown away by individuals is not recycled. Light and made up of 9% air, it represents only a small amount of recoverable material and is therefore not financially interesting to treat for small volumes. Plastic bags are also very light. The recycling process consumes more resources than it returns. It is therefore necessary to maximise their use as much as possible or simply avoid producing them. Plastics that have undergone flame-retardant treatments, can be harmful to health, as toxic products are found on recycled materials.

### # Limit on the number of recycling operations

The quality of the recycled materials decreases due to impurities and other materials mixed in the recycling cycles. Objects produced with these recycled materials are of lower quality and are used for other purposes because they cannot be reused as they were originally. This phenomenon is known as "**down cycling**" - recycling or under cycling. Eventually, due to the rebound effect, the recycled products still end up in the trash. The problem is therefore shifted. So, on average, paper can live for 2 to 5 cycles. Plastic can live a maximum of 5 cycles. With each cycle, it will also be necessary to reintroduce material.

### # Over energy consumption

Recycling glass to create a new bottle requires using furnaces for 24 hours at 1500°C and reinjecting a portion of virgin cullet. Sometimes the recycling of some products even leads to energy consumption that has a greater impact than the gain of material in itself (e.g. polystyrene).

### # Green washing ?

Recycling does not challenge our current consumption pattern. It will not allow us to move towards sobriety. On the contrary, an increase in consumption will make it possible to create a recycling economy and guarantee the

sustainability of existing sorting facilities by protecting investment. **Therefore, the more we recycle, the more we will have to recycle!**

Recycling is therefore synonymous with:

- Consumption detached from the real needs of consumers
- Acceleration of overproduction / overconsumption
- Increasing waste and worsening of the current situation

**Finally** - Recycling by itself will not solve the entire waste problem. It is by changing our habits that it will be possible to reduce our waste. Many industrialists brandish the recycling as a marketing trump card in order to obtain a "responsible" image but misleading of "green washing". Yet recycling seems to be one of the miracle answers proclaimed by societies to fight against the ever-increasing alarming number of wastes.

## The choice of minimalism? Towards zero waste ...

"The least impacting waste is the waste that is not produce." That is why it is important taking time to think before buying. Anticipating act of buying and learning to say "NO" means questioning the real need to consume. And yes, it is possible to avoid throwing away, by avoiding consuming what is not useful for you. Sounds quite simple, doesn't it? However, applying this minimalist approach in everyday life is not always so obvious. So, you'll have to arm yourself with convictions!

**"But then, where to start? »**. The question is often asked. From one institution to another, or from one person to another, the same action will seem more or less easy to apply. There is no precise order or logic to follow. The watchword is to follow desires and motivations of the users of the institution. So, there should be no hesitation to start, whatever the starting point. As the saying goes, "the important thing is to participate! »

## 1. Lesson 1 - Refusing: the power to say no!





The next step is to learn to say no. Saying no is simply avoiding the unnecessary. It's making different choice. It is not creating conflict, but rather a way of dialogue and making people think. If one decides to follow the "5 Rs" method developed by the precursor of bulk goods, Béa Johnson, in her book, the first dogma to follow is to refuse, at the moment of purchase. This means, for example, refusing plastic bags that are offered in shops.

This concept of refusal bases its power on the principle of collective intelligence held by consumers. According to this principle, if everyone starts refusing to consume this or that product, or to produce this or that waste, then they will no longer have a reason to exist. Other alternatives will develop instead, which we hope will be more respectful of the environment. This rule of refusal applies to superfluous objects that will have no short-term use, objects that will never be used, promotional offers from your suppliers, or gifts to your customers. Here are some ideas of products that can be avoided:

- **Disposable plastic items:** On an establishment scale, it is possible to eliminate almost all single-use items by replacing them with reusable, reusable or biodegradable items. It is a different organisation to adopt but economically viable in the long term. Moreover, it allows the problem of waste congestion to be greatly reduced.
- **Advertising printed matter:** A simple action to start reducing waste is to stick an "ACTION STOP PUB" sticker on the establishment's letterbox, so that you no longer receive advertising brochures.



**Focus on advertising brochures ...**  
Paper production requires wood or wood scraps, water, energy, chemicals and transport from one end of the chain to the other. Usually unread, and especially by people who do not want to receive advertising, each flyer becomes a waste product which, in the best case, is recycled, otherwise incinerated or sent to landfill. Thus, the best waste is always the waste that is not produced.

## benefits of this approach

- **Ecological impact** from the elimination of additional waste is limited by implementing preventive actions upstream.
- **Economic interest:** This translates into a costs reduction of managing wastes produced. It is not only the costs attributable to waste collection fees (taxes or charges paid to local authorities or private collection service providers) that should be considered. This approach does not take into account costs related to the costs of producing and managing waste internally. Indeed, producing waste is never profitable. It is a question of optimising purchases, minimising waste in restaurants, avoiding single-use products etc,
- **Benefit of image:** it's about giving a positive image of the establishment's commitment

## 2. Lesson 2 - Towards zero waste

### 2.1 - Reducing waste

#### 2.1.1 - ORGANIC WASTE



It is a major source of waste in restaurants, hotels and food retail outlets. Here are various solutions for reusing these food products before they are thrown away.

- **Stock management and distribution of perishable goods**

Reducing food waste is also a question of optimising and organising self-service distribution areas. Limiting self-service sales or reducing the volumes of products sold on the shelf.

Products on the shelves are sometimes touched dozens of times. This can mark the most fragile foodstuffs such as fruit and vegetables. Damaged products will be the last to be bought. That is why it is necessary to prevent products from being manipulated by limiting the quantities of products on the shelves and by raising customer awareness using appropriate media. At the same time, it is also necessary to:

- Take care to remove damaged products from the shelf, then remove stocks in the refrigerated area. Customers buy with their eyes. This encourages the purchase of other products.
- Plan to sell the damaged products separately
- Offer damaged food free of charge "at a loss", informally as a commercial gesture, to build customer loyalty

Set up a reservation system for all meal orders in order to anticipate purchases and optimise stock management.

In collective catering, it will be necessary to supply food in moderation to self-service outlets. Bread baskets, for example, should be placed in the centre of the dining room at a distance from the tables. This will force people to get up to fetch it: the customers will eat less bread, but they will finish their plates! Charge the cost of the unfinished plate. This will encourage everyone to be careful.

- **Unconsumed or unsold products:**

Generally, even with the best management system in place, surpluses are always possible. Products that are close to the expiry date or are out of fashion and will become more difficult to sell in the short term can be sold off. Why not hold sales all year round?

In particular, there are applications that allow restaurateurs to offer meals at a reduced price:

- Unsold items are offered on the platform at a low price,
- Users order them and come to collect them.

The advantages:

- Products that you would have thrown away are sold even at a low price.



- You are introducing your kitchen to customers who might never have pushed the door of your establishment and it's great publicity!

Free redistribution to the staff or charities also helps to reduce waste.

For leftovers, customers can be offered to bring "doggy bags" to take away the leftovers of their order. If they do not have, it may be possible to arrange providing them with some or without compensation. In this way, it helps to reduce food waste in the establishment.

### 2.1.2 - STOP WASTING PAPER.

The use of paper can easily be reduced by following a few simple rules and principles such as:

- Limit the use of paper advertising material: to do this, you can avoid distributing business cards.
- Favour documents in dematerialised format: A computer can be used for archiving instead of storing paper documents. Communication media can be laminated or protected. To avoid damage, do not hesitate to protect the media or invest in resistant materials for re-use. In order to be able to reuse them every year, the number of elements to be modified on the communication supports must be limited. It is possible to switch to electronic invoicing for customers;
- Limit the number of prints: by touching the automatic double-sided programming of the printers; Or by using printed documents only on demand. Clients can be accompanied in the drafting of documents to avoid duplications.
- Reviewing the presentation of its products on sale so as not to have to package them. Products can be presented in cardboard boxes or reusable containers. Plastic gift wrap is replaced by recycled or recyclable paper. In this way, customers are made aware of alternative packaging methods to disposable gift wrap paper.

#### Good to know...

"Producing recycled paper means using 6 times less water, 2 times less energy and 25 times less chemical waste".

*Source: WWF Association*

## 2.2- avoid consuming single-use products



Mountains of tissues, shampoo samples, soap, cotton, razors and so many other objects are part of everyday life and make up the panel of disposable objects. They are used only once and instinctively thrown away in the trash. These volumes of objects may seem tiny, minimal. Why worry about the fate of a cotton or a vulgar plastic spoon? And yet, appearing harmless at first glance, these objects have a direct impact on the environment. We invite you to consult the links of the following videos in order to understand the stakes hidden under the paradox of single-use:

- **The story of a spoon (1 : 55) :** <https://www.youtube.com/watch?v=eg-E1FtjaxY>
- **What really happens to the plastic you throw away - Emma Bryce (4:06) :**  
<https://www.youtube.com/watch?v=6xINyWpPB8>

It is by starting small, that it is possible to change things on a larger scale! Here are a few tips on how to reduce the use of single-use items by rethinking the way things are done. These are reflexes to be acquired over time. For every disposable product, there is a durable and reusable alternative.

***For example, large formats should be preferred to individual portions*** in order to reduce both costs and the quantities of waste to be treated. Some single-use packaging can be replaced by a deposit system or by grouped packaging. Before taking this step, it is important to talk to the supplier beforehand to inform them of your approach and to negotiate possible alternatives. Environmental clauses can be included in contracts. Moreover, constant dialogue with the employees can lead to practical and original solutions to reduce or even avoid certain waste flows, such as certain types of packaging. For the approach to be as effective as possible, it is necessary to communicate well by raising the awareness of customers and staff members. Here are some examples that can be set up:

### ***For cleaning products:***

It is possible to replace the countless cleaning products with more natural products such as white vinegar and sodium bicarbonate, which are just as effective. This will prevent the multiplication of cleaning products. It is important to inform well the staff in the correct use of the products, especially when they arrive in bulk without prior dosage (dosages, gloves, avoid air fresheners, even natural ones, ventilate the rooms).

### ***For hygiene products...***

Instead of the individual shampoo and soap samples that often end up in the trash, soap, shampoo and shower gel can be offered in refillable dispensers or in solid formats.

### ***For food service ...***



Some foodstuffs can be easily packaged in large sizes while respecting strict hygiene rules. This is the case for cereals, sugar, jam, etc. Use reusable crockery instead of plastic dishes. Prefer home-made dishes! Even in large quantities, it works and customers are satisfied.

***In addition, ...***

As a gift for the customers, it possible to offer local zero waste products that can be reused or recycled to enhance the local heritage (sachet of lavender, local honey...) accompanied by small cloth bags. They will appreciate it! It is also possible to provide individual welcome products to be given only on request (dental kit, sewing kit...). To accompany the customers towards zero waste, it is possible to provide them with glass containers or jars that they can use for their shopping.

## 2.3- Prefer bulk purchases

An initiative that appeared in the 2010's, bulk consists of buying non-pre-packaged products. Moreover, you only buy the quantity you want. Although there are legislative or hygiene-related restrictions for certain products, such as olive oil or products with a certified that require specific packaging, almost all products can be bought in bulk, including cleaning products. On the scale of a restaurant or hotel establishment, this can even make it possible to reduce certain operating costs. To replace plastic containers, the use of jars, glass bottles or cloth bags is recommended.

Of course, plastic can be recyclable. However, all sorting and processing instructions must be followed. What's more, unlike glass, it is not 100% recyclable. This method of sale and sustainable consumption is part of the zero waste movement that has been developing and becoming more widespread throughout the world in recent years. It therefore helps to reduce disposable packaging waste and food waste, in addition to creating social ties and revitalising the local economy. It should not be forgotten that bulk is already an integral part of daily life, through markets or the sale of vegetables.

**How to do to buy in bulk?**

Buying in bulk requires a period of adaptation at the beginning, time to get used to it and to find out how it works. It can be complicated to set up because it requires a review of the usual organisation of the establishment. In the long run, it is a source of savings in time, space and money.

Sourcing from local producers is a solution that reduces the amount of waste produced. For customers, all they have to do is find out which shops offer bulk, and it's done! Goodbye plastic! It is possible to compile a list for guiding customers.



## 3. Lesson 3 - Organic waste valorisation

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In order to valorize biodegradable waste, priority is given to composting. More and more composters are made available in towns and shared gardens. If the establishment has sufficient land or space, it is also possible to set up a compost bin or even a henhouse. Some specialized structures can also collect organic waste. In catering establishments, recycling bins are available where the customer can put his or her own organic waste.

### What is composting?

It is a natural process of decomposition and transformation of organic matter into beneficial soil. All food waste of plant origin can be recovered in the form of compost after storage in a dedicated container. This is a very good way to reduce the volume of waste while enriching the soil with organic matter. It is also feasible on a large scale. The city of San Francisco in California is an example. From the home to the city, integrating compost is entirely possible, provided that a suitable installation is prepared and users are properly trained.

### What to put in your compost?

- Fruit and vegetable peelings (It is best to wash them beforehand so that there are no traces of chemicals).
- Coffee grounds and paper filter
- Egg shells, crushed to facilitate their decomposition
- Faded flowers
- Bread and dough waste.
- Green garden waste: leaves, mowing, weeds, flowers, etc. (Attention! Make sure that this waste has not been chemically treated beforehand).
- Some household waste such as paper handkerchiefs and ashes.
- Tea, herbal tea and infusion bags
- The ashes can be used as a fertilizer and slug killer.

### What shouldn't go to compost?

- Sick plants
- Meat, especially bones
- Fish, especially bones
- Oysters, mussels
- Dairy products
- Citrus peels: orange, lemon or grapefruit peels

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