

Tips for Food Waste Management in Restaurants

1. Avoid over-buying stock

Ensure that you only purchase the ingredients that you know your business will use. It can be tempting to 'stock up' or buy in bulk if your supplier has a good deal on, but doing so can leave you with more food than you need. And this food will only go to waste if it's left to spoil in storage.



2. Store food correctly

Make sure that your fridges and freezers are running at the right temperatures, ensure that low risk food are always stored on higher shelves than high risk foods and keep food storage areas clean and tidy. Storing foods under the correct conditions is vital for preserving their quality and preventing pathogenic bacterial growth –both of which can quickly lead to food waste.

3. Practice stock rotation regularly

Use the 'FIFO' rule –First In, First Out- when storing food and displaying food for sale. This ensures that newer stock is routinely placed behind older stock, and the older stock will always be used up first before it has change to go to waste.

4. Temperature control

Good temperature control is essential for food safety as it prevents the growth of harmful pathogenic bacteria. It also means that food waste is less likely as the food is unable to spoil. This include cooling hot food quickly, reheating food to the correct core temperature (at least 70°C for 2 minutes), storing high risk food in fridges (1-4°C) and freezers (below -18°C), plus hot/cold holding at safe temperatures (above 63°C and below 8°C, respectively). Find guidance on the temperature danger zone and download your free food safety chart to display in your kitchen here.

5. Label food correctly

If foods are decanted into different containers for storage then make sure they are clearly labeled with allergens, date information and a product description. Keeping stock organized makes it much easier to keep track of what you have and what needs using, preventing unlabeled containers from being thrown away in error or because you don't know what's in them.

6. Keep a stock inventory

To prevent waste, you should always know exactly which foods you have in stock at all times. This means keeping a detailed list of the foods in all of your storage areas, including their use-by/best-before dates, that you can easily refer to. This avoids foods getting forgotten and going to waste.

7. Pay attention to use-by dates

WRAP estimates that 21% of restaurant food waste is due to food spoilage. It's essential that you have a reliable stock rotation system (FIFO) in place so that food doesn't spoil or go out of date before it can be used. Use-by dates should be checked on a daily basis.

8. Inspect all deliveries against the order specification

When a food delivery arrives at your restaurant, it's important that you only accept the items that you ordered to prevent excess, waste food. You should also reject anything with visible spoilage or damage, or anything that's delivered at the incorrect storage temperature, as these foods will only spoil further and be thrown away later in the day.

9. Keep a close eye on portion control

Be wary of oversized food portions and jumbo side dishes – quality is definitely much more preferable to quantity. A 2012 study actually found that over a quarter of people leave food at the end of their meal, with chips/French fries stated as the food that is most likely to be left. The reason for this food wastage is often because customers consider fries, vegetables and salads as an extra part of their main meal that they didn't ask for.

10. Donate leftovers to a local charity

Set up a link with a local charity, such as the Fareshare scheme, and donate any leftover meals and ingredients to people who desperately need them. You could also set up a link with a local food bank. This ensures that your leftover food goes to a good home, rather than to waste.

11. Anticipate the demand with care

Think carefully about how much food your restaurant needs to prepare in advance – can any of this be made to order instead? Large batch cooking means that food may not get used before it goes out of date. Whilst batch cooking may save time, it can be a waste of both money and food.



12. Give customers more menu options

For example, do all your main meals need to come with chips or salad? Give customers more choice over what to include or leave out of their meal to stop any food going to waste. Perhaps people would prefer to be given a choice between fries, vegetables or salad, or maybe these items are best left on the 'side dishes' part of the menu for customers to purchase if they really want them.

13. Incorporate leftovers and use food efficiently

Try not to be so quick to throw away leftover food, as you might be able to make use of it somewhere else. For example, vegetable peelings and animal bones can be used to make stocks and soups, while day-old bread can be made into croutons or breadcrumbs.



14. Compost food waste

Rather than sending it to landfill, choose to put any waste food into a compost bin so that it can be put to good use. This includes fruit and vegetable peelings, old bread products, grains, coffee ground and tea bags –pretty much any food expect for meat, fish and dairy products.

15. Ask if customers want to take leftovers home

WRAP states that 34% of waste is food left on customers' plates, so why not offer your customers the option of a 'doggy bag' to take their leftover food home with them? Of course, not every food can be packed up for eating later, but slices of pizza can easily be put into a take-away box for example.

16. If you have a buffer of self-service counter, don't provide trays

Food waste can often be attributed to people being overly-zealous at self-service counters. If people are only given plates, then they're less likely to pile on excess food or pick up side dishes that they can't carry and aren't actually able to eat.

17. Train employees in how to reduce waste

By law, all food handlers must be trained in food safety, but this should also extend to being taught how to reduce waste. WRAP found that poor food preparation contributes to 45% of food waste, and is the biggest contributing factor. Therefore, it's crucial for staff to learn how to store food correctly, cook food correctly, keep the premises clean, and avoid cross contamination. If you want to learn more, take a look at our course library.

Cleaning the city



- This tricycle will allow you to achieve greater efficiency in city cleaning operations, as it reduces waste collection time and facilitates the transport of cleaning material.
- Electric tricycle for street cleaning operations. This tricycle allows you to carry a garbage bag in the back and up to 4 brooms.
- Designed for selective waste collection. Thanks to its structure it can carry 3 buckets and up to 4 brooms.

Smart waste collector and garbage collector

With the advent of technologies, all the things around us are getting smarter. Since with the motive of a smart city, there is a need for smart waste management. This project illustrates the model of a smart bin for shopping malls, airports, hospitals, schools and colleges. Trash can and smart garbage collector is nothing more than an ordinary modified with help of an integrated system that enhances it to be smart. The garbage can and smart garbage disposal is the new incentive that uses sensors to detect and automatic routing. It also uses motors DC motors and servos to move and dispose of waste to reduce human intervention in the disposal of household waste. This can be used in real time to reduce the human intervention in waste disposal.

Hybrid solutions allowing for flexible energy systems in Greece

When looking at integrated energy system, the grid is a key challenge. Both grid stability, as well as market fluctuations and demand patterns, require innovative solutions, which can integrate multiple renewable energy sources to adapt and mitigate to the challenges of the future energy system.

Working closely with customers, Vestas has developed different hybrid power plant solutions covering the full project's value chain, from sitting to construction, grid connection and service. Hybrid power plant solutions can change the way in which energy is harnessed and monetized, connecting energy with value. In Greece, the Louzes Wind Power Plant was established in 2008, featuring 24 MW of wind power capacity. In 2012, a 1 MW solar power plant was integrated with the existing wind power plant, becoming a hybrid power plant through sharing interconnection facilities. MW-scale grid connected solutions such as this that diversify energy generation to power plants enable you to be more competitive by enhancing the utilization of resources relative to plant capacity as well as being able to deliver a consistent, predictable supply of energy over time.

The EU's Circular Economy Action Plan

An evolution in Europe policymaking

In December 2019, the Von der Leyen Commission unveiled its European Green Deal, an ambitious plan to transform the EU's economy into a fair, sustainable, and prosperous one. The European Green Deal is a comprehensive growth agenda which aims to make Europe the first climate-neutral continent, while ensuring that no one is left behind in this transition. However, the creation of this new growth strategy was not a simple process. The European Green Deal is the result of an evolution in the European Commission's thinking and of a series of policy developments across different areas since 2011.

This case study reflects back specifically on the steps which the European Commission took to take a lead in circular economy policies globally. From initially aiming at improving resource efficiency, to redefining growth with positive social, environmental, and economic benefits, this case study analyses this policy making process.

The need

The circular economy offers an opportunity to progressively decouple resource consumption from economic growth, therefore potential reducing the EU's dependence on imported and virgin raw materials, and its vulnerability to resource price volatility, while providing new business opportunities.

The Circular Economy Action Plan

The EU's Circular Economy Action Plan (CEAP) was a comprehensive body of legislative and non-legislative actions adopted in 2015, which aimed to transition the European economy from a linear to a circular model. The Action Plan mapped out 54 actions, as well as four legislative proposals on waste. These legislative proposals were put forward by the European Commission along with the Action Plan and included targets for landfill, reuse, and recycling, to be met by 2030 and 2035, along with new obligations for separate collection of textile and biowaste. The Action Plan covered several policy areas, material flows, and sectors alongside cross-cutting measures to support this systemic change through innovation and investments. It also announced a sectoral strategy for plastics. More than EUR 10 billion of public funding was allocated to the transition between 2016 and 2020.

The outcomes

All 54 actions were adopted or implemented by 2019. The EU is now recognized as a leader in circular economy policy making globally. The waste legislation was adopted in 2018, following negotiations with the European Parliament and Member States in the European Council. According to Eurostat, jobs related to circular economy activities have increased by 6% between 2012 and 2016 within the EU. The action plan has also encouraged at least 14 Member States, eight regions, and 11 cities to put forward circular economy strategies.

How did this action plan support the transition to a circular economy?

By rethinking resource efficiency and material flows, the European Commission developed a framework to promote systemic change. By engaging policymakers across different policy areas and levels of governance, as well as various stakeholders, it has aimed to promote a collaborative approach. The co-leadership with the institution between the Directorates-General responsible for Industry & Enterprise, and the Environment, was crucial to this process.

What is the circular economy?

The circular economy is a model of production and consumption, which involves sharing, leasing, reusing, repairing, refurbishing and recycling existing materials and products as long as possible. In this way, **the life cycle of products is extended.**

In practice, it implies **reducing waste** to a minimum. When a product reaches the end of its life, its materials are kept within the economy wherever possible. These can be productively used again and again, thereby **creating further value.**

This is a departure from the traditional, linear economic model, which is based on a take-make-consume-throw away pattern. This model relies on large quantities of cheap, easily accessible materials and energy.

Why do we need to switch to a circular economy?

The world's population is growing and with it the demand for raw materials. However, the supply of crucial raw materials is limited.

Finite supplies also means some EU countries are dependent on other countries for their raw materials.

In addition extracting and using raw materials has a major impact on the environment. It also increases energy consumption and CO₂ emissions. However, a smart use of raw materials can lower CO₂ emissions.

What are the benefits?

Measures such as waste prevention, ecodesign and re-use could save EU companies money while also reducing total annual greenhouse gas emissions. Currently, the production of materials we use every day account for 45% of the CO₂ emissions.

Moving towards a more circular economy could deliver benefits such as reducing pressure on the environment, improving the security of the supply of raw materials, increasing competitiveness, stimulating innovation, boosting economic growth (an additional 0.5% of gross domestic product), creating jobs (700,000 jobs in the EU alone by 2030).

Consumers will also be provided with more durable and innovative products that will increase the quality of life and save them money in the long term.

What is the EU doing to become a circular economy?

In March 2020, the European Commission presented the circular economy action plan, which aims to promote more sustainable product design, reduce waste and empower consumers, for example by creating a right to repair. There is a focus on resource intensive sectors, such as electronics and ICT, plastics, textiles and construction.

In February 2021, the Parliament adopted a resolution on the new circular economy action plan demanding additional measures to achieve a carbon-neutral, environmentally sustainable, toxic-free and fully circular economy by 2050, including tighter recycling rules and binding targets for materials use and consumption by 2030.

In March 2022, the Commission released the first package of measures to speed up the transition towards a circular economy, as part of the circular economy action plan. The proposals include boosting sustainable products, empowering consumers for the green transition, reviewing construction product regulation, and creating a strategy on sustainable textiles.

Circular economy action plan

The EU's new circular plan paves the way for a cleaner and more competitive Europe.

The European Commission adopted the new circular economy plan (CEAP) in March 2020. It is one of the main building blocks of the European Green Deal, Europe's new agenda for sustainable growth. The EU's transition to a circular economy will reduce pressure on natural resources and will create sustainable growth and jobs. It is also a prerequisite to achieve the EU's 2050 climate neutrality target and to halt biodiversity loss.

The new action plan announces initiatives along the entire life cycle of products. It targets how products are designed, promotes circular economy processes, encourages sustainable consumption, and aims to ensure that waste is prevented and the resources used are kept in the EU economy for as long as possible.

It introduces legislative and non-legislative measures targeting areas where action at the EU level brings real added value.

Objectives

Measures that will be introduced under the new action plan aim to:

- make sustainable products the norm in the EU
- empower consumers and public buyers
- focus on the sectors that use most resources and where the potential for circularity is high such as: electronics and ICT, batteries and vehicles, packaging, plastics, textiles, construction and buildings, food, water and nutrients
- ensure less waste
- make circularity work for people, regions and cities
- lead global efforts on circular economy

Actions

The Commission will implement all 35 actions listed in the action plan.

Timeline

Previous and upcoming actions and initiatives

1. 2022

Adopting of several initiatives under the action plan, including:

- legislative proposal for substantiating green claims made by companies
- review of requirements on packaging and packaging waste in the EU
- new policy framework on bio-based, biodegradable and compostable plastics
- measures to reduce the impact of microplastic pollution on the environment

2. 5 April 2022

European Commission adopted proposals for revised EU measures to address pollution from large industrial installations

- Revision of the Industrial Emissions Directive
- Revision of the European Pollutant Release and Transfer Register

3. 30 March 2022

European Commission adopted package of measures proposed in the circular economy action plan

- Sustainable Products Initiative, Including the proposal for the Ecodesign for Sustainable Products Regulation
- EU strategy for sustainable and circular textiles
- proposal for a revised Construction products Regulation
- proposal for empowering consumers in the green transition

4. 17 November 2021

European Commission adopted proposal for new rules on waste shipments

5. 28 October 2021

European Commission adopted proposal to update rules on persistent organic pollutants in waste

6. 22 February 2021

Global Alliance on Circular Economy and Resource Efficiency (GACERE) launched

7. 10 December 2020

European Commission adopted a proposal for a new regulation on sustainable batteries.

This was the first initiative to be delivered under the new action plan.

8. 11 March 2020

European Commission adopted new circular economy action plan

9. 11 December 2019

European Commission adopted European Green Deal

10. December 2015

European Commission adopted the first circular economy action plan.

All 54 actions under this plan have been delivered or are being implemented.

