

# What is Circular economy?

A concept of the consumer society which is already present in European legislation: **economy should be geared towards recycling** and the greatest possible reduction in waste. Let's explain what it consists of.



## Reducing the consumption of plastics, the primary objective of the circular economy

Have you ever thought about how many things we can accumulate over a year? Consumers generally follow a linear process: we buy what we need or that we just like and **when it ceases to be useful we dump it** in the garbage. So things quickly become waste. The product's lifetime is very short.

And a lot of the companies still work in the same way, doing linear production. From the first step, when a product is devised and designed, it is not always thought of introducing recycled materials and it is not taken into account the **large number of raw materials that have to be extracted** to produce a particular object.

The circular economy appears in order to tackle this model. This system involves **sustainable and environmentally responsible production and consumption**. It is based on reducing production, repairing or reusing objects instead of throwing them, and finally recycling them. This is the way to close the life cycle of products and reduce the waste produced to a minimum.

But what does this concept mean in real life? Many companies have already incorporated the principles of the circular economy into their systems. For example, a company that uses the heads of fishing and other plastic waste collected from the sea to manufacture glasses; the companies that **repair and recondition mobile phones**, which allows you to switch phones without spending much money; the businesses that allow you to re-use and fill the packaging; all those that redesign the packaging of their products to reduce their amount of plastic or use recycled materials; or even the carsharing companies, which are also included in the philosophy of the circular economy, as they allow you to **save expenses and reduce the pollution** that vehicles emit.

## An example: plastic made from vegetables

When is it inevitable that a product will reach the end of its life? The circular economy works to ensure that information and all the possibilities for proper separation, collection and subsequent recycling are available. **Let waste cease to be waste and become resources again**. Even organic

waste, which is usually ***made into compostable*** material, can come to have a second life as packaging, replacing those made of oil-derived plastics. A revolutionary advance that already exists in the hands of some innovations centres on circular economy in Europe.

These laboratories work in projects on the circular economy as the creation of a plastic made from plant waste, such as potato or orange peel, which is compostable, recyclable and biodegradable in the marine environment.

Source: Antena3 Television ([link](#))

## Everything tha's recycled and you know it

We know that many bottles, notebooks or bags come from **recycled material** but there are other everyday objects that we do not even imagine where they come from. The park we take to our daughters, the quilt we're shaking or the anorac we're taking. We tell you what can be done with **recycled packaging**.

Landfills are not just 'graveyards' of garbage. **When we separate the waste**, the usual heaps are just a waiting place before someone rescues them and gives them a second life. The bottle of water that you throw can be converted into a pipe, a shoe alone, a textile fibre to make carpets or a street bank.

Toni Bolaño is the owner of Export Directe and has been designing and producing plastic furniture with 100% recycling alongside his wife for nearly 20 years: "We were the first to start and people were surprised, will it be okay?, will it hold?". Bolaño is clear about the answer: "It will take a thousand years." But no one can guarantee that.

What can certify Bolaño is that their products last more than a decade. And it's that he saw with his own eyes the passage of time for them: "A customer has an external picnic table for almost 20 years," he claims proud. And it's that the biggest advantage of recycled plastic, he points out, "is its durability."

"They don't break, they don't have maintenance, they're not dangerous, they don't take fungi, they don't get molds, they don't look like they're," he says excitedly. Furthermore, its **recycling cycle** can continue: "You can dismantle it and make another piece of furniture or melt again" the plastic they're built with.

### One park bench, thousand plastic packaging

Despite all the advantages of **recycled plastic furniture**, Bolaño admits that "the first purchase is very difficult" because people distrust. This is true, once they try a product, repeated sales are very common: "There are people who after three or four years call you back," he explains.

A bench designed by Bolaño may have about **1,000 packaging from which we put in the yellow container**. The plastic he uses is the second life of bags and straws, also of bottles, but to a lesser extent, since these are more difficult to recycle: in a concrete table, there are only 5% PET bottles.

But the real success of this sector would be for it to



disappear: "I'd be happy to change business because that would mean there wouldn't be so many plastics to recycle," Bolaño judgment.

As we're discovering, not everything we show is new. There are many products from materials that have already been part of other things. For example, Nukak converts pneumatic chambers and advertising posters into bags.

Nukak's origin is in 2002, in a design competition in which eight colleagues were presented with a collection of **bags made of advertising canvas**. What was once a hobby, today is a business led by Patrick Abreu. With advertising canvases, tires, kite surfer or nautical sail lones, they craftily manufacture bags and wallets in Barcelona.

Patrick Abreu is aware of the wide price fork that reigns in the fashion and add-on sector, where 'made in China' prevails. **Local production and artisanal work** is certainly expensive, but as Abreu says, 'it is not possible to have a person here sewing on a decent wage and selling at inditex prices': 'We do not compete at price, we offer something and we seek people to appreciate it and to allow it'.

Without great echoes of ecologism - '**my bags do not save the planet, but they are more ethical, ensure**' - Abreu does argue that behind its product there is an exercise in consciousness. They now work on incorporating new materials that can be recycled or have less environmental impact, such as sustainable fibres, organic cotton or nylon threads that were once fishing nets.

The owner of Nukak tells us that they have recently been asked to design a bag to be used in 'ploggin', a form of 'running' that has become fashionable and consists of collecting solid waste while walking or running. Sustainability is becoming a chain of transformations that gives us these paradoxical results: **what was one day a waste is no longer a waste** and it in turn becomes a waste of other waste.

Source: Antena3 televisión ([link](#))

## **Ecodesign or how to thin packs to make them more sustainable**

Up to 18% of the weight of packaging has been reduced in Spain since the so-called 'ecodesign' began to apply. We showed you some examples of a before and an after of some products that have passed through the design stage with a sustainable focus.



You probably remember those detergent drums that were once in our houses. Instead of this immense box (which some of us reuse as a toy bucket or trash), now we have concentrated gel bottles or monodose capsules. And you've also noticed that the glass bottles of soft drinks are smaller than those of the past. Of course, suspicions: what if they are deceiving us and contain less drink?

Well, no, part of this evolution has to do with one concept: ecodesign. It is a question of including in the process of designing products and their packaging some measures to reduce their environmental impact. It must never be forgotten that the main function of packaging is to preserve the product, to withstand the conditions of transport and to be used with guarantees.

### **Decrease the weight of packaging**

The fact that making a packaging thin only a few grams can mean a reduction in tonnes at national level. Like the tuna cans of some brands: only by changing the lid for an aluminum film was their weight reduced by 17%.

Reducing the amount of packaging material is one of the main battles of ecodesign. Packaging in Spain has been reduced by 18% on average since people began to work on ecodesign in 1999. In the same period, 1,5L PET plastic bottles have reduced their weight by 18%, or yoghurt vessels by 21%.

In Spain, the two institutions that have worked most on ecodesign in Spain are Ecoembes, which manages urban waste at national level, and Ihobe, a public environmental management society of the Basque Government. Between the two organisations, they have drawn up different guides aimed at helping companies to implement ecodesign in packaging.

Teresa Sebastiá, the Eco-design coordinator for Ecoembes, states that "80% of the environmental impact of a packaging can be prevented". In fact, she insists, the end goal is that it should no longer be called 'eco' and that the environmental approach should be fully integrated into the process of designing a product.

## **The product order does alter impact**

The ecodesign is concerned not only with the packaging that is in direct contact with the content, but also with its placement to reduce other surface packaging or packaging in pallets. Something like the game of tetris applied to products. We should be aware that products are coming increasingly close to each other.

Sometimes, it is simply a question of increasing the content on each package. As consumers, buying these pack savings not only contributes to our pocket, but also involves consuming fewer plastics or raw materials.

## **Reducing environmental impact: using recycling material, inks and recycling information**

Ecodesign also applies the objective of the so-called circular economy, which seeks to reuse recycled material as much as possible. In this respect, there are bottles and other types of packaging that are already made of 100% recycling material, or others that are including compostable materials, i.e. that can be used to convert into organic fertilizer.

Reducing the environmental impact of packaging involves taking into account all the elements of the design of a package, to the size of the label or print in boxes, or the inks with which the product information is printed: when a wrapper or box is white or not overpainted, unnecessary use of inks is removed. In addition, labelling makes sure that information on recycling packaging is sufficient, is visible and contains standard symbols on recycling materials, to facilitate home separation.

## **Rounder to take advantage of the product**

Other examples we find in this search engine in the design of yogurts and other dairy derivatives, of which you will have noticed, are increasingly rounded. Well, the aim was not its aesthetic, but to be able to make better use of the product. These impossible corners caused you to lose up to 4% of the product's content. The same was true of the folds of some cleaning products, which have gradually disappeared to give way to more rounded bottles.

Filletting the packaging to take more advantage of the product and reduce the amount of plastic, another ecodesign strategy | [Archive](#)

## **More than 2,000 companies have 'ecodesign' their products**

In Spain, according to Ecoembes, more than 2,000 companies have already redesigned their packaging and packaging to reduce their environmental impact. The majority of these are SMEs, which do not usually have many resources to cope with the initial cost of this redesign: "In innovation large companies are usually pioneers, but SMEs are very interested in their reputation and very active, have this commitment to sustainability," says Teresa Sebastiá. A redesign strategy can range from a brief change on the product to the total transformation of the packaging. There are so many details to consider that the whole process of analysis and reworking can take months.

Beyond a question of image or reputation, however, the benefit of the reduction of resources is global for people's health and the whole environment, as emissions of polluting gases are saved. In total, according to data from Ecoembes, over 65,000 prevention measures have been implemented in Spain over the last twenty years of ecodesign, and 34,000 tonnes of raw material have been reduced in two years.

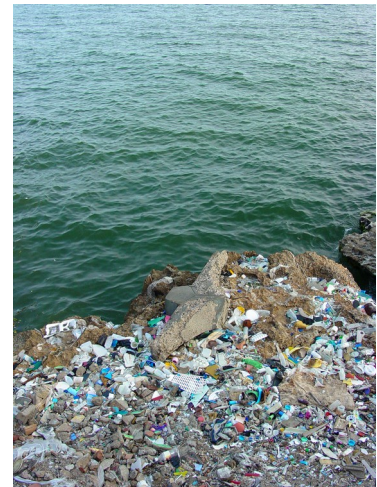
Source: Antena3 televisión ([link](#))

## From a bottle to a jacket: another useful life in the waste collected from the sea

We showed you *sustainable fashion initiatives* that retrieve tons of *plastic* from the sea to *recycle* and create new products.

Every year, *up to 12 million tonnes of rubbish go to the seas and oceans* of the planet. Of this waste, 60% to 80% are plastics.

In order to reduce the amount of plastics we consume, *the European Union has banned disposable plastics by 2021*. But the institutions are not the only ones working to prevent the use of large quantities of plastics which also end up in our seas. In this respect, some fashion companies have begun *to produce from recycled material*.



Not only they use plastics from the sea to produce their parts or supplements, but they also *take care and promote the cleanliness of the seas*, the harvesting of the waste that inundates them and provide the waste with proper recycling treatment.

### Fishing nets glasses

Sea2See *makes glasses with fishing nets and fishing cables*, waste that takes 600 years to break down and which they collect from the sea. These contain polyamide, a "product that is harmful to the marine environment and deadly to the fauna and takes a long time to disintegrate", explains François van den Abeele, founder of the project. He knows the sea, was a broker, and is also called himself "sensitive to nature and the sea".

"Fashion is one of the most polluting sectors," says François, who once stated that "the optics world almost always uses unsustainable plastics." At the beginning they placed recycling containers in 30 Spanish ports. Previously, fishermen draw this waste in the bulk container and did not follow any recycling process.

Nowadays, waste is taken to a plant where it is separated by plastic type, by color... After that, the pellets (small plastic pieces) are recycled and formed. It is with this material that the final product is made. This process is more expensive and François recognises that "the easy solution would be to use virgin plastic", but considers that "there is enough raw material in the Planet if it is recycled correctly".

The company also works on a pilot project in France. All the waste collected there by fishermen moves to a centre where people at risk of social exclusion work by separating the waste before they can be recycled.

In addition to the added value given to his glasses that is made of recycled materials, François



claims that "people feel part of the change" when they bring them and "can tell the story behind them".

### **Creating clothes from plastic bottles**

Ecoalf creates pieces of clothing with plastic bottles collected from the sea. For a jacket, they use 70 and for a pair of shoes, four. In 2015, the company managed to collect nearly 300 tons of waste from the sea, collaborating with Ecoembes on the project 'Upcycling the Oceans'.

In Spain, they are present in 37 ports and are supported by 2,500 fishermen. They are a fundamental part of the process: "The trash is taken from the background, where 80% of the waste is found in the sea," says Monica Oliart of Ecoalf.

The intention is that it should be they, the fishermen, who, during their working hours, collect the rubbish they find while they fish: "They are the ones who suffer the most and those who are most aware of the problem, so they do it in the heart," explains Oliart, who also recognises that, in this way, Ecoalf does not need to have his own ships and "the double footprint is avoided". This same process has been replicated in Thailand, where it has been in operation for two years now.

With the hairs, the thread is created that is later used in tissue production. From the company they impart: "The recycled thread we use is of very good quality." With these pieces they put their sand grains and contribute to creating sustainable fashion.

### **Microplastics get into our food chain**

The main problem is that bottles, bags, cigar filters, fishing nets and other waste ending up in the sea are slowly fragmenting, reducing their size and becoming so-called microplastics (less than 5 mm).

Hundreds of sea turtles die every clouded anus in garbage | Sync

As a result, a total of 800 species of seabirds, fish, molluscs and cetaceans die or ingest these plastics, causing them serious health problems. Finally, these microplastics end up in our food chain, also affecting our organism.

Source: Antena3 televisión ([link](#))