

CARLSBERG CASE STUDY  
/ CIRCKLO

# TOGETHER TOWARDS ZERO

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# ZERO

Carlsberg is a Danish brewer, operating in Western Europe, Eastern Europe and Asia. It's portfolio includes multiple beer and cider brands, including Carlsberg, Kronenbourg, Somersby, Holsten, and Tuborg.







Image courtesy of Carlsberg

Carlsberg is a Danish brewer, operating in Western Europe, Eastern Europe and Asia. It's portfolio includes multiple beer and cider brands, including Carlsberg, Kronenbourg, Somersby, Holsten, and Tuborg.

The company has been working on various sustainability projects over the past decade or more, under the leadership of a CSR team, before appointing a Director of Sustainability in 2015 to head up initiatives such as its Together Towards ZERO sustainability programme.

The same team has worked on many of Carlsberg's sustainability initiatives, starting with the Carlsberg Circular Community in 2014 and now with its Together Towards ZERO, which began in 2017 and continues to this day.

## Objectives and targets of Together Towards ZERO

The Carlsberg Together Towards ZERO project was built on the foundations of its previous Circular Community, which aimed to:

- Reduce weight or change to packaging with a lower environmental impact.
- Increase reuse of packaging materials, with a focus on glass bottles.
- Encourage consumers to recycle packaging and to increase the amount of recycled material used in packaging.
- Rethink packaging and waste, by using recycled packaging materials in other products.

Building this circular model required the help of various partners to help it achieve its goals. For example, Carlsberg worked with Tesco Polska, the Eurocash Group, KOBA Recovery and the Our Earth Foundation to create awareness of recycling, collecting 47 tonnes of glass in 2014.

By 2017 it had added 17 partners to the Carlsberg Circular Community, achieved three Cradle-to-Cradle® product certifications, a programme which recognises product design and manufacturing processes which are sustainable.

It had also reduced energy consumption by 8%, water consumption by 7% and CO2 emissions were down by 19% as a result of its efforts.

From 2017, Carlsberg launched the Together Towards ZERO programme, with a series of ambitious targets to be achieved by 2022 for some, and 2030 for others.







## The Together Towards ZERO has four major aims:

- **ZERO carbon footprint**  
Carlsberg aims to eliminate carbon emissions from its breweries by 2030 and to be using 100% renewable electricity by 2022. It also aims to reduce 'beer-in-hand' emissions by 30% by 2030. This last target covers the whole lifecycle of its products.
- **ZERO water waste**  
The target is to cut water usage at breweries in half by 2030, as well as improving water management outside breweries in high-risk areas.
- **ZERO irresponsible drinking**  
Looking at the wider societal impact of its business, Carlsberg aimed to offer 100% distribution of alcohol-free drinks by 2022, as well as provide information on responsible drinking, and to form partnerships to encourage responsible consumption.
- **ZERO accidents culture**  
A year-on-year reduction in the accident rate to achieve the 2030 target of zero lost-time accidents.

The goals are designed to tie in with the UN's Sustainable Development Goals (SDGs) which are a call for governments, the public and businesses to tackle major global issues of inequality, poverty and climate change.

Carlsberg's aims reflect the areas where it can have an impact, so the targets around reducing carbon emissions and using renewable energy address the UN's SDG 7 - affordable and clean energy, as well as climate action (SDG 13).

Likewise, the focus on cutting water waste and improving water management fits around the UN's SDG 7, to improve clean water and sanitation.





## Organisational and value chain challenges

One of the initial challenges for Carlsberg was to introduce the concept of circularity into an already established value chain, and to ‘decouple growth from impact’.

This means that the circular model had to be introduced into the way breweries are run, as well as the wider value chain.

Implementing such improvements is not straightforward and as Carlsbergs Sustainability Report states, ‘requires the coordination and cooperation of multiple stakeholders’.

According to Simon Boas Hoffmeyer from Carlsberg’s Sustainability team, it was important that the company’s goals were understood by all, not just within specific teams:

**“From the beginning, our viewpoint was that we shouldn’t be a big central function, but we should ensure that sustainability gets integrated into the business frame and the way we do that is to ensure that the business has the right people in place to work on the major impacts that would create the best benefits for the company.**

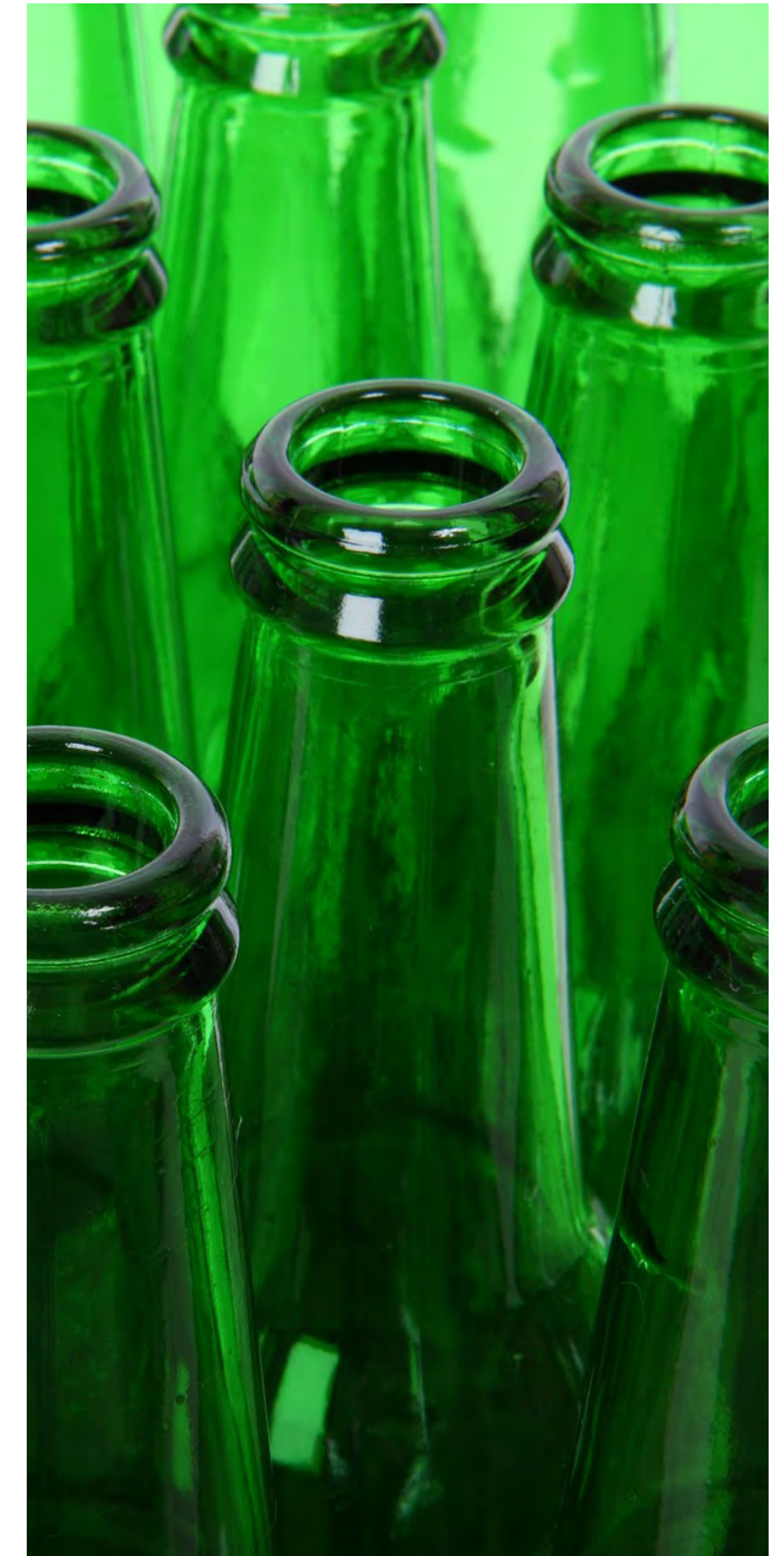
**It is more important to have someone working on increasing the return rates of our refillable glass bottles who is a logistics expert, rather than having someone working on that from within the sustainability team.”**

Partnerships and cooperation with people and other businesses is vital for success too. For example, building a circular model across the value chain requires engagement with customers to ensure that packaging remains in the loop, rather than ending up as landfill or litter.

Carlsberg has been active in promoting recycling with consumers, for example by using music festivals to spread its message. So, at the Roskilde festival in 2019, Carlsberg replaced more than 1 million single use plastic cups with sustainable cups that can be used up to 25 times.

Partnerships were central to the Carlsberg Circular Community (CCC) initiative, and this has continued through to the Together Towards ZERO programme.

To increase efficiency and reduce waste in the value chain, Carlsberg has needed cooperation of the various stakeholders along the way in a number of projects designed to help Carlsberg meet these goals.





## Sustainability takes shape.



### Creating sustainable packaging

It has also required the expertise of partner businesses to help it achieve its goals. One such example is its partnerships to help reduce packaging waste, such as that with independent company Paboco.

The aim is to produce the world's first 100% bio based 'paper' beer bottle, which is made from sustainably sourced wood fibres, and contains no polymers. This project has now been joined by other global companies including Coca-Cola, The Absolut Company and L'Oréal.

**“Radical innovation like this is only possible when experts from across the value chain come together to find sustainable solutions.”**

Gittan Schiöld, Interim CEO, Paboco

### Reducing water usage

Another example is the partnership with DRIP (the Danish partnership for Resource and water-efficient Industrial food Production) at Carlsberg's Fredericia brewery, with the aim of making it the first brewery to virtually eliminate water waste.

The project has involved universities and technology providers, as well as Danish veterinary, environment and food authorities, ensuring that the project meets Denmark's high food and environment standards.

The total water recycling plant in the brewery will reuse 90% of process wastewater, and will reduce energy consumption by 10% through biogas production and the recirculation of hot water.

As Carlsberg Group CEO Cees 't Hart states in the 2019 Sustainability Report:

“The success of our business is bound up with our partners, our consumers and the natural world on which we all depend. Nobody can solve the challenges the world faces alone. By working in partnerships, we are able to make faster progress and deliver change that would otherwise not be possible.”



## Impact and results

The thinking behind Carlsberg's adoption of a circular model is that the only long term and sustainable answer to waste is to ensure that resources and products are designed and used in continuous loops.



According to the company: "Waste should not exist. Resources and products should be viewed and used as high-quality materials optimised for reuse and recycling."

Adopting a circular model, and addressing sustainability on this scale brings a number of key benefits for the general public and the climate, but also helps Carlsberg in a number of ways. These include:

- **Long-term growth**

Investing in sustainable practices now increases efficiency in the longer term, but also ensures that the business will retain its appeal to environmentally conscious consumers, and will insure it against possible future regulatory costs around environmental impact.

- **Profits**

In 2019, Carlsberg reported record payouts to shareholders and a 10.5% growth in profits. Making the value chain more sustainable can also deliver efficiency savings and underpin future growth.

- **Employee satisfaction**

According to the 2019 Sustainability Report, 90% of Carlsberg employees believe they work for a socially and environmentally responsible company. Studies have identified links between a company's attitude to CSR and employee happiness and engagement. In short, people feel happier working for companies they feel add benefit and value to the wider world. This can pay off in terms of attracting and retaining the best employees.

Carlsberg also recognised that reducing the company's CO2 footprint can also be translated into cost savings. So by reducing the amount of material used to make a piece of packaging or to ensure that more packaging is recycled, there are environmental and economic impacts.

**It benefits the company's bottom line as well as the environment.**



Together Towards ZERO is an ongoing programme, but it has already made progress towards a number of its goals.

### **ZERO carbon footprint**

- Carlsberg reduced relative carbon emissions by 13%, from 5.6 kg CO<sub>2</sub>/hl in 2018 to 4.9 kg CO<sub>2</sub>/hl in 2019. This is a reduction of 30% since 2015.
- Absolute emissions were reduced by 9%, from 704 kt in 2018 to 638 kt in 2019. This was achieved through energy efficiency programmes, fuel conversions and using more electricity from renewable sources.
- Coal usage was reduced by 11% compared with 2018 (an 89% reduction by weight from 2015).
- In 2019, 56% of total electricity consumption came from renewable sources, a 10% increase since 2018.
- Washed and reused 5.3 billion returnable glass bottles and introduced the Snap Pack, a glue solution which reduces plastic usage by up to 76%.

### **ZERO water waste**

- Water efficiency improved by 3%, in 2019 (a 12% improvement from 2015).
- Water usage in India decreased by 9%, achieved by increasing the usage of recycled water for cleaning at four breweries.
- In Denmark, Carlsberg invested in a wastewater treatment plant that will recycle 90% of processed water and cut water usage for brewing from 2.9 hl/hl to 1.4 hl/hl while reducing carbon emissions by 10%.

### **ZERO irresponsible drinking**

- In 2019, volumes of AFBs (alcohol free beers) grew by 7%, with our brands now available in more than 60 markets.
- Carlsberg's portfolio of AFBs is growing, with more than 30 variants available across the Group.

### **ZERO accidents culture**

- The lost-time accident rate (LTAR) fell from 4.3 in 2018 to 3.7 in 2019.
- Employee lost-time accidents (LTAs) fell from 169 in 2018 to 146 in 2019.

Beyond these specific goals, Carlsberg reported 3.2% growth in revenue and a 10.5% increase in operating profit, showing that sustainability goals can be achieved alongside business growth.

This underlines the key reasons behind the drive towards a circular, sustainable model - that it will strengthen the business in the long term.

A more sustainable value chain delivers cost savings, but also improves brand perception, and contributes to employee engagement and satisfaction.

To make progress towards its goals, Carlsberg has needed the cooperation of stakeholders all along the value chain - employees, suppliers, partners and ultimately the consumer.

## **Key Takeaways**

- Sustainability is a long-term investment. The drive to a circular model, and to increase sustainability throughout the value chain isn't achieved overnight. Carlsberg's current Together Towards ZERO programme will have lasted 13 years by the time the 2030 deadline for its goals arrive, and its work on sustainability began long before that.
- Engaging key stakeholders is vital. For long-term projects which fundamentally transform the way companies operate, like Carlsberg's Together Towards ZERO, it's vital that everyone is on board to ensure success and continuity.
- The importance of partnerships. Even for a large company like Carlsberg, the expertise required cannot always be found within the organisation. It has been necessary to find outside help for various projects - the technology required to create sustainable packing for example, or to reduce water usage.
- The need for cooperation along the value chain. You need the cooperation and expertise of everyone involved such as partnerships with retailers and engaging consumers to encourage the recycling of packaging.
- Sustainability needs to be linked to long-term growth. Carlsberg has been able to make a business case for its move to a circular model, so its sustainability projects go hand in hand with growth.



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