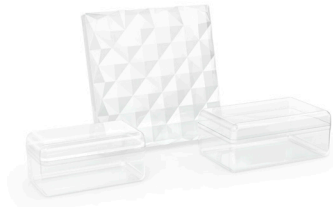




## ◆ THE FERRERO ROCHER ECO-DESIGNED BOX



Assessing the carbon footprint and plastic use of the Ferrero Rocher eco-designed polypropylene box vs. the previous box made from polystyrene.

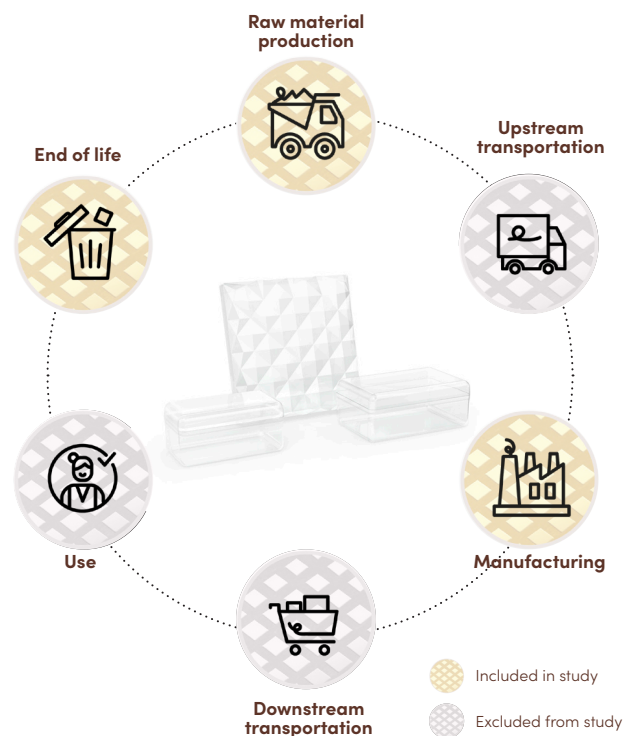
Ferrero Rocher is on a journey to make its packaging more sustainable. Our **eco-designed boxes** are made from **polypropylene**, a widely used and **easier-to-recycle material**<sup>1</sup>, carefully **designed to reduce our plastic use and impact on the climate** while maintaining our boxes' iconic transparency and ensuring the same quality product our consumers know and love.

### ◆ MEASURING THE IMPACT

We commissioned a **life cycle assessment (LCA)** comparing our eco-designed polypropylene (PP)<sup>2</sup> box solution with the previous box made of polystyrene (PS)<sup>3</sup> to effectively measure the carbon emissions savings.<sup>4</sup> As part of this initiative, we also calculated the amount of plastic reduced as a result of the new box design in PP.

The study assessed three box types: the 16- and 30-piece compact boxes and the 24-piece gifting box.<sup>5, 6</sup>

The life cycle stages of the Ferrero Rocher PP and PS boxes assessed in this study



### WHAT'S A LIFE CYCLE ASSESSMENT?

Life cycle assessment (LCA) is a metrics-based methodology used to evaluate and compare environmental impacts occurring over the life cycle of products or services.

This LCA used a cradle-to-grave approach, meaning that it considered the life cycle of the various plastic boxes studied, from the extraction of the raw materials used to produce them through to their end of life.<sup>7</sup>

The scope of the study supports Ferrero Group's commitment to reducing its carbon footprint.

<sup>1</sup> Compared to previous boxes

<sup>2</sup> Polypropylene is indicated by the number 5 (or 05) on plastic packaging.

<sup>3</sup> Polystyrene is indicated by the number 6 (or 06) on plastic packaging.

<sup>4</sup> The life cycle assessment was conducted in 2020/Q1 2021 by a third party, which was then refined in Q1 2022.

<sup>5</sup> The modelling framework and assumptions made are based on ISO 14067:2018 and the Product Environmental Footprint (PEF) methodology. The PEF methodology, an initiative of the European Commission, aims to standardise measurement of the environmental performance of a good throughout its life cycle. The functional unit was "containing and protecting Ferrero Rocher pieces, in different box formats".

<sup>6</sup> Availability of box formats may differ by market. As Ferrero Rocher eco-designed boxes are introduced in different markets at different times, starting with our most iconic formats 16-piece box, 30-piece box and 24-piece box, some previous boxes might still be found on store shelves.

<sup>7</sup> The LCA excluded upstream and downstream transportation due to the uncertainty of the final transportation route. However, this is consistent with a conservative approach since most of the time transportation is volume-limited given the low density of the Ferrero Rocher products. And, in the case of mass-limited transportation, the PP box is lighter.

## WHAT THE STUDY FOUND

The results of the study show that the Ferrero Rocher eco-designed boxes have a **lower carbon footprint** and **use less plastic** compared to their respective previous version. The lower carbon footprint is driven by the change in plastic from PS to PP, which allows for a lighter box that has a **lower climate impact** during its production and is **easier to recycle**.



### Carbon footprint

Compared to the previous version, the Ferrero Rocher eco-designed boxes have at least a **30% lower carbon footprint**. Additionally, when a box is recycled, it has an even lower climate impact – reaching a 70% lower carbon footprint versus the previous box.<sup>8</sup>

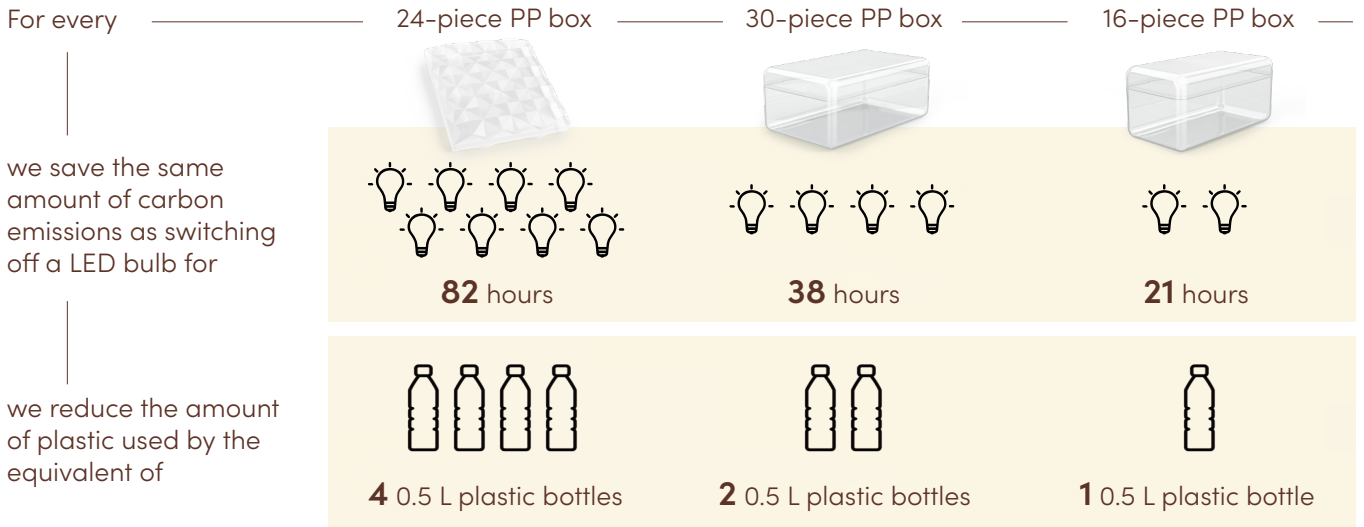
## WHAT'S A CARBON FOOTPRINT?

The carbon footprint measures the potential greenhouse gas emissions released across the life cycle of a product, including carbon dioxide, nitrous oxide and methane. (Unit: CO<sub>2</sub>-eq)

### Plastic use

The **16- and 24-piece** Ferrero Rocher eco-designed boxes use **40% less plastic** than the previous box, and the **30-piece box uses 38% less**. We developed 29 different plastic resins to find the right one that would maintain our iconic box's transparency, use less plastic and guarantee the same high-quality product as always.

## WHAT THE RESULTS MEAN



Comparison of the PP box to the previous box made of PS. Each LED bulb represents the avoidance of approximately 10 hours of use. Each bottle is made of PET and excludes the cap and label.

To put the reduction of carbon emissions and plastic use into perspective, **once the implementation of the 16-, 24- and 30-piece eco-designed boxes is complete<sup>9</sup>**, we will have achieved the equivalent of

### By project completion

#### CARBON FOOTPRINT

switching off more than **800,000** LED bulbs for one year

#### PLASTIC USE

avoiding the use of **500 million** 0.5 L plastic bottles<sup>10</sup>

<sup>8</sup> Findings are based on a comparative life cycle assessment of Ferrero Rocher's packaging (plastic box only), conducted in 2020/ Q1 2021 by a third party, and refined in Q1 2022, following the methodological Guidelines of the Product Environmental Footprint (PEF) initiative and using global averages. The 30% emissions reduction considers a worst-case, non-recycled end-of-life scenario for the PP Ferrero Rocher box (incineration without energy recovery). The 70% emissions reduction considers a best-case full recycling scenario for the PP Ferrero Rocher box. The baseline considers a landfill end-of-life scenario of the previous box.

<sup>9</sup> Implementation began in September 2021. Equivalencies are based on Ferrero internal data (excluding growth).

<sup>10</sup> Calculated based on the bottle (PET) only, not including the cap or label.

To learn more about how Ferrero Group is making progress on its sustainability goals, visit [ferrerosustainability.com](https://www.ferrerosustainability.com).