

## Bio-based plastics Case study SME Valsay S.L.

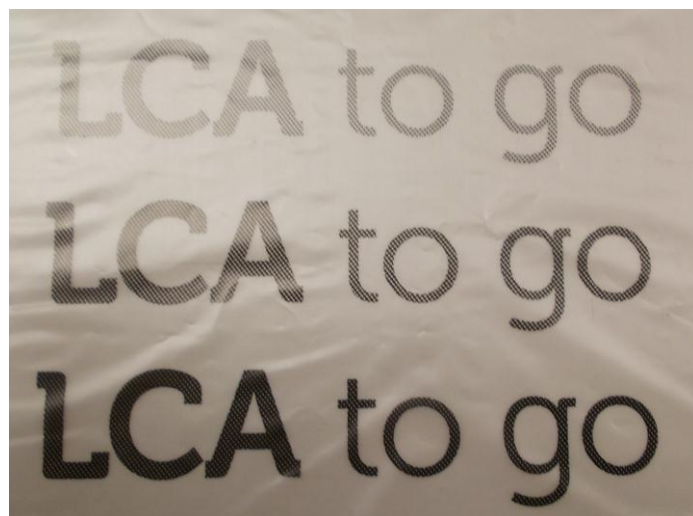


**Valsay S.L., a company specialized on distribution and commercialisation of packaging systems, has implemented the LCA to go bio-based plastics tool for the ecodesign of PLA/PBS biodegradable carrier bags.**

With the support of ITENE, Valsay decided to engage in the ecodesign project. The aim of the ecodesign was to meet the market challenges, and specifically to the new legal requirements about carrier bags. Additionally, Valsay was also interested in the implementation of ecodesign procedures as a part of the company' product strategic development.

The LCA to go web-based tool was used in order to ecodesign the PLA/PBS carrier bags for a reduced environmental impact, without affect carrier capacity, mechanical properties and printing. The main challenge for Valsay was to keep the carrier capacity and mechanical strength, while dimensions and die-cuts of the handle were modified. A secondary challenge was to optimize ink use, keeping the brand image. All these changes should also not increase either operational or investment costs.

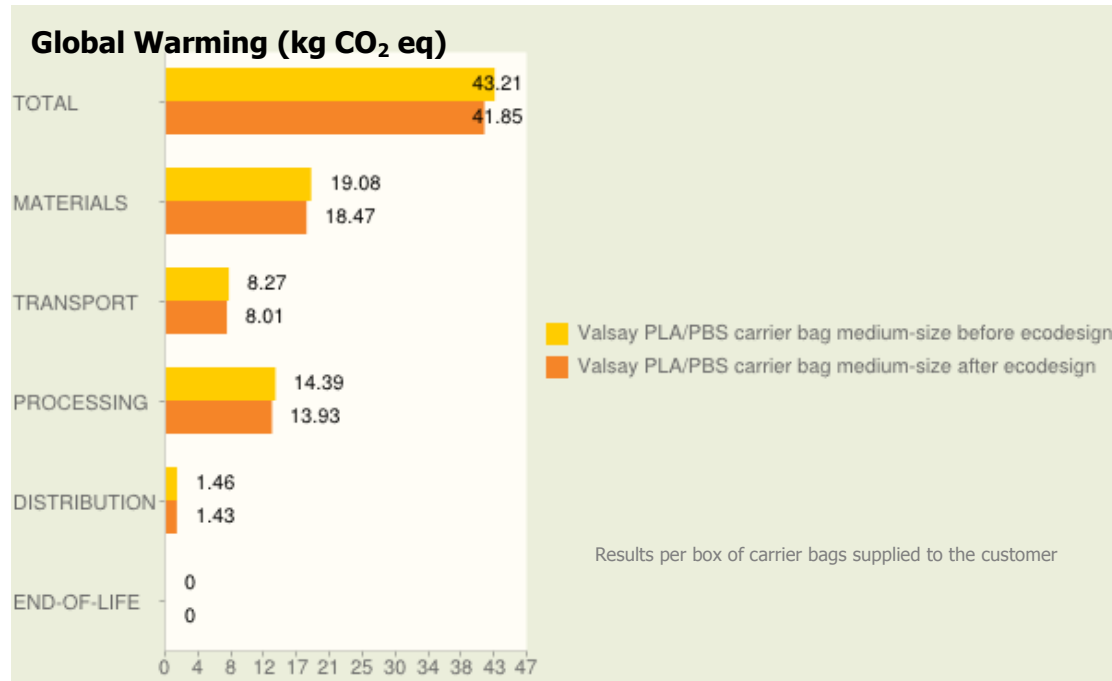
The bag dimensions as well as the die-cut of the handle were successfully modified through the ecodesign actions suggested by ITENE and the outcomes of the bio-based plastics LCA to go tool. The weight of the bag was reduced up to 3.2% while keeping the carrier capacity and enhanced tear strength through a positive angle in the handle die-cut.



Moreover, several printing patterns for the printing of the bags were also analysed. For that purpose, several etching plates were produced with a line and dot printing

pattern. Such actions lead to an ink saving between 20 to 68%, as function of the printing pattern.

The combined effect of the above mentioned ecodesign solutions resulted in a global carbon footprint improvement of about 3.14%, while keeping the costs. Consequently, the ecoefficiency of the carrier bag was effectively improved.



Ion Ajuriagoxeascoa, Valsay CEO said: *“Definitely we have a better product after the ecodesign of the bag with the bio-based plastics LCA to go tool. We have learned a lot on ecodesign that has been implemented at company level as a corporate emission inventory. The aim of this inventory is to inform our customers about the environmental behaviour of our products. Our thanks to ITENE for letting us learn from them and especially Ruth Jovani and Antonio Dobon for their excellent work”.*