

Bio-based plastics

Case study

ARGO-SA



ARGO is a Greek company that develop, produce and trade rigid packaging like plastic closures, droppers, vials, bottles, canisters, tubes, dosing systems for demanding applications and several markets. This company began in injection and blow moulding and nowadays is covering all traditional methods to produce rigid plastic packaging. ARGO has applied the bio-based plastics LCA to go tool in order to prove the environmental impact reduction reached in a jar for crabmeat made of PLA that is currently under development as a demonstrator in the EU-funded project NANOBARRIER.

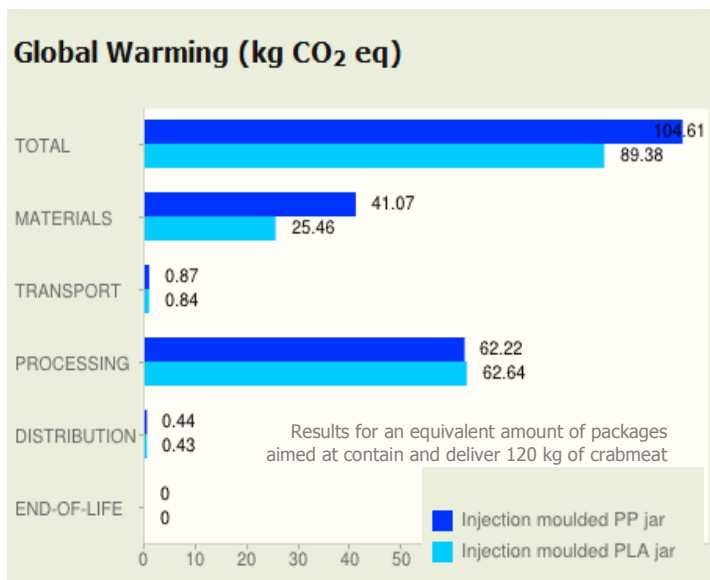


Figure 1. Global Warming results for injection moulded jars

ARGO decided to join the training program of LCA to go in order to check to what extent the use of PLA might reduce the environmental impact in comparison with their current PP jar. ITENE, which is also involved in the EU-funded project NANOBARRIER, has assisted ARGO during the ecodesign process aimed at the production of the PLA jar.

As a secondary objective, ARGO joined LCA to go trainings in order to acquire LCA knowledge to be

applied in future product developments. The main interest of ARGO was the carbon footprint of their product portfolio.

The company set out several strategies for product improvement, which were analysed with the mentoring of ITENE. In this case study, besides the material change from PP to PLA, it was also analysed the optimized use of the amount of material. This has been done also considering the properties of the materials and the shape improvement. The combination of such ecodesign strategies allowed reducing the weight of the jar, while the estimated carbon footprint minimization has been of about 15%.

PhD. John Alexiou R+D+i Manager at ARGO pointed out: *“we think that LCA to go is a powerful tool to analyze our future ecodesigns”*.