

EcoTreeTool - Choosing a Green Future for Packaging

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INTRODUCTION

EcoTreeTool is developed in collaboration with Coop and SuperBrugsen. This concept is a 'product/service system' that seeks to minimize the environmental impact inherited from the packaging of household goods that runs through Coop, out to the consumers and ends up at a disposal facility. The core idea of the concept is to create 'an environmental friendly decision tree' to be used in the sales department of Coop. EcoTreeTool should assist the department in choosing the packaging with the smallest carbon footprint. EcoTreeTool looks past the package of the individual good and focuses on its functional properties - therefore it can be compared with many others to see if there is a greener solution on the market. Most of the energy used during the life of different packaging is in the extraction and production phase - why we want to make sure that the 'greenest' materials are chosen in the first place, and by doing this, removing the chance of improper handling and sorting of the trash by the consumer. By finding packaging solutions that use less or more environmental friendly materials, Coop has the opportunity to choose the packaging that is most beneficial for both the business and the environment. Our vision for implementing EcoTreeTool is to create a platform for positive change where all types of packaging is present so Coop can choose the 'greenest' packaging - but also allows companies to see if there is a greener way for satisfying their functional needs for packing goods on the market. Thus making eco-friendliness a competitive parameter.

THEORY

EcoTreeTool is a product of the course Product/Service-Systems (41050) and is developed based on the philosophy 'People, Profit, Planet' where the concept has to be beneficial for all of the three.

METHODS

A life time assessment (LCA) was made for four types of packaging containing the same amount of tomato sauce. This exemplification shows that different materials can be used for satisfying the same functional needs - with different environmental output. Metal and glass had the worst CO₂-footprint. No data was available for what packaging was present in the stores of Coop. So we collected it ourselves in SuperBrugsen - making a record of what packaging materials present in the store, what mass it had, if it had sorting information, how it should be stored, and its functional properties. A before and after LCA was made and a Business Model Canvas for the concept was made. A rough draft for changing from metal and glass to TetraPak was made based on the collected data.

RESULTS

The result of the project was an estimate that Coop could reduce their carbon footprint with a factor 3,3 by changing from glass and metal packaging to TetraPak where it's possible - a reduction of 179 ton of CO₂ per store per year. This should result in savings for Coop because of less used materials. The consumers benefit from having less trash to throw out.