

# Global Fortune 60 Telecommunications Company Life Cycle Assessment and Carbon Calculator for Cellular Phone Packaging

## Need

The client is a leading telecommunications company with global reach of over 128 million wireless customers worldwide. The company sells a range of cell phones, accessories, and SIM cards that are procured through multi-staged, international supply chains. The goal of this project was to analyze the carbon footprint of the packaging used in 17 cell phones and identify specific measures to reduce waste, greenhouse gas (GHG) emissions, and lower shipping and storage costs.

## Solution

AEA/Project Performance Corporation conducted a complete carbon life cycle assessment of the packaging of each of the 17 phones, whereby we measured the GHG emissions of both the manufacturing and transport of the packaging material. Specifying the emissions associated with each of the five stages of the supply chain, our experts collected data for the quantity of materials used, the distances and method by which they were transported, and the energy used at each stage. The results presented to the client included a total carbon footprint for the packaging used in 17 cell phones - a calculation of the carbon intensity per phone and overall emissions, factoring in the total number of phones sold. In addition, we developed and delivered training to enable the company to track emissions over time and to benchmark supplier performance.

## Value delivered

Our findings enabled the client's research and development and procurement teams to make informed decisions regarding the packaging used for the phones. The client used the AEA/PPC carbon lifecycle footprinting tool to quantify the potential environmental improvements resulting from reduced packaging and to provide persuasive evidence to its suppliers to convince them to modify their packaging designs.

Furthermore, AEA/PPC experts suggested several supply chain optimization options, such as a modal shift from air to rail or sea transport, where feasible, given other strategic considerations, such as speed to market.

Our training enabled client representatives to continually tracking the carbon performance of their products by updating the calculator with data for new phone models and modified packaging.

The results of the life cycle assessment and the carbon calculator enabled the company to significantly reduce its shipping and storage costs by focusing its efforts on the two phones that contributed 52 percent of the total packaging emissions.



*The LCA analysis helped the customer understand the life cycle carbon impact of packaging for 17 products and work with suppliers to reduce packaging waste and shipping costs.*

## Why AEA/PPC?

With more than 20 years of experience in the areas of energy and environmental management consulting and a staff of over one thousand, AEA/PPC offers world-leading expertise in carbon footprinting. With a wealth of experience in climate and energy policy, carbon management, lifecycle assessment, and energy efficiency, our consultants help private and public organizations across the globe improve productivity, reduce bottom-line costs, and enhance their environmental performance. We have helped over 300 organizations save \$1.6 billion in energy costs and reduce 2 million tons of carbon dioxide.