

Life Cycle Assessment of Device Packaging Re-design

Objective

- Understand whether the re-design of a cell phone package improved its environmental performance as intended
- Understand which attributes of the re-design were particularly effective
- Communicate the improvements made in environmental performance to internal audiences and to the public

Quantis Solution



Conduct a peer-reviewed life cycle assessment of three generations of a cell phone package



Identify key parameters and effective strategies that lead to better environmental performance



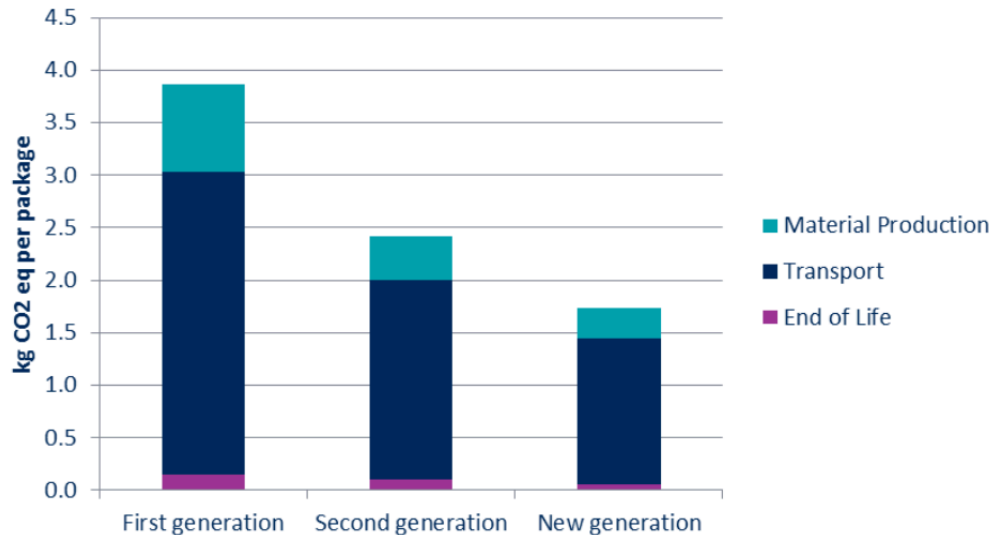
Provide objective, rigorous, and useable information to support public communication

“Our work with Quantis was imperative for substantiating our communications around sustainable packaging.”

Jennifer Walter
Manager of Packaging & Product Communications Sprint



Results



- The most recent generation (New) showed at least a 50% improvement in environmental performance across all indicators compared to the first generation
- Overseas delivery by plane contributes 40-70% of total life cycle impacts, depending on the impact indicator considered.

Key findings

- Transport is the most impacting life cycle stage, particularly air transport
- Reducing package volume was an effective design strategy because of volume-limited transportation
- The protective function of the package is crucial because the impacts of the cell phone is considerably higher than its packaging

Client's actions

- Communicate on improved environmental performance of packaging ([watch the video](#))
- Establish a program for evaluating and ensuring environmental performance from packaging suppliers
- Consider additional changes for further improvements