PepsiCo is a multinational beverage, food, and snack company that produces a broad portfolio of products.

PepsiCo’s new pep+ campaign outlines the company’s goals for becoming more sustainable, which includes achieving a 40% reduction in emissions by 2030, and net-zero emissions by 2040.

PepsiCo maintains one of North America’s largest private transportation fleets.

PepsiCo's pep+ initiative aims to reduce the emissions of its transportation fleet by 75% by 2030. Our team is tasked with analyzing PepsiCo’s operations to determine the viability of green hydrogen as a fuel source for long haul transport, and then develop an economic model to ascertain whether hydrogen fuel cell vehicles (FCEVs) can play a role in the company’s transition to a sustainable future.

Our results will be summarized for PepsiCo through the following deliverables:
- Economic model detailing our methods, assumptions, and sources
- Scenario analysis that acknowledges the potential variability of our assumptions and future predictions
- Commentary and analysis concerning the FCEV industry outlook, centered on key assumptions that should be tracked

Future FCEV and green hydrogen costs are highly uncertain. Any potential model of future costs must take a holistic viewpoint. Below are two potential indicators.

Further analysis of the total cost of an FCEV was conducted. Component costs, considered and modeled individually, resulted in a forecasted cost decline of 28%.

Additional results to be compiled: 1. Complete scenario analysis encapsulating the potential variability of assumptions. 2. Combined economic analysis of the overall cost model and travel routes.

Our approach:
- Travel routes mapping
- Hydrogen price forecast
- Comparative economic analysis
- Scenario Analysis
- Inspection and suggestions

Our analysis shows widespread industry expectations for decreasing costs of green hydrogen. These lower costs rely on assumptions of greater scale, share gain of renewable energy, and government support.