

LEVC Identifies 25-40% Savings on All Systems Estimated with aPriori



CASE STUDY

LEVC partners with aPriori to deliver a cohesive manufacturing costing strategy within both their internal and external cross functional teams.

Background

Hailing an iconic black cab in London has long been considered a safe and reliable premium service synonymous with the city. Today, with the transportation sector flooded with competition, and the current focus on turning London into an electric city, the rebirth of the black cab came at just the right time. Realizing their potential, The London Taxi Company – the original black cab company – was purchased by Geely of China in 2013. The resurrection of the iconic black cab combined with the city's new zero emission policy on all taxis has evolved into The London Electric Vehicle Company. LEVC's black cabs are sold to independent taxi owners in and around the city, as well as fleets and independent owners in cities worldwide. According to their website, their company goal is to "change the world and make cities cleaner and greener for everyone, where air pollution is a thing of the past and easy, comfortable and safe transportation is accessible to all."

Dr. Scott Hunter-Saphir is the Projects Controller at LEVC. His essential responsibility is managing all the budgetary requirements relating to spend, scope, concept, and delivery around projects that are initiated on the engineering side.

The Challenge

As a new business creating a new design with a new team, a new factory, and a new supply base, the number one priority for LEVC was getting to market quickly with a high quality product. This drove a focus on delivery at the expense of an integrated manufacturing costing strategy. The closer they got to launch, the more apparent it became that they hadn't put as much into the cost management side of the vehicle as they should have. It was during this time that LEVC committed to developing a cohesive cost strategy going forward.

Once this priority was established, LEVC realized they needed some type of tool and process to help identify where they could reduce costs both internally and with suppliers in the future.



Company: London Electric Vehicle Company
Vertical: Automotive
Headquarters: Coventry, United Kingdom

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Evaluating a Costing Solution

Dr. Hunter-Saphir's previous experience with a costing system was unsatisfactory. He felt it was very generic in the way it worked, wasn't created by people that really knew how to cost, relied heavily on decision trees, and had zero industry data built in. Instead, the user was expected to load and maintain all industry data needed to use the system. This approach was very onerous for the team, so they continuously went back to using their old spreadsheets. The system also relied on a level of design and engineering knowledge that the team didn't have.

Based on that experience, it was very important to him that LEVC implement a system that was ready to go with costing models and industry data already built into the platform. LEVC looked at a number of systems. The biggest selling point for LEVC to use aPriori was the ability to easily import a 3D solid CAD model. This reduced their dependence on the cost estimator needing to have specific knowledge about how the part is conceived. LEVC's cost estimators are all experienced. But the fact is that it takes them significantly longer to manually review and identify manufacturability issues than it takes aPriori to do it.



Between aPriori's regional data libraries and the CAD import capabilities, aPriori was the easy choice for LEVC.

The Solution

LEVC is now using aPriori to generate detailed manufacturability data and costs for a wide variety of components. Internal assessments of their own costing results and approach has helped them to identify new and potentially valuable cost-down projects their team could analyze in the future. The process started with a comprehensive costing exercise on the metal structure parts of the car, which has already started to return some strong financial results and beneficial engagement with their suppliers.

LEVC also conducted a full bottom up costing analysis on the interior of the vehicle, where there are several plastic injection molded parts. Before using aPriori, the company spent significant time and money looking to retool parts and move them out to China. The problem they encountered was their volumes were much lower than other manufacturers with similar types of vehicles, so their payback time to retool would be much longer. When you add to that the shipping costs and import duties, the costs were prohibitive, despite the usually expected savings from low cost production centers.

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– Dr. Scott Hunter-Saphir
Projects Controller, London
Electric Vehicle Company



LEVC’s goal is to create a center of excellence for cost estimation, especially for some of the newer brands that have recently been welcomed into the Geely group.

aPriori helped LEVC identify a better way – using their current supply base – and use that to start discussions with suppliers about where they could become more efficient – without the need for retooling.

Huge Savings Opportunities

At LEVC, the product costing team has taken a long, hard look at their costing process, which has led to some meaningful engagement and positive results with suppliers. According to Dr. Hunter-Saphir, “The potential of our internal process and aPriori is extremely high. **Within the first year of using aPriori, LEVC identified 25-40% savings on all systems estimated with the software.** In the coming year, we are prioritizing our cross functional team approach to deliver a cohesive and holistic internal strategy.”

LEVC plans to roll out the use of aPriori to other upcoming projects not only within LEVC, but also throughout the Geely Group umbrella. The goal is to create a center of excellence for cost estimation, especially for some of the newer brands that have recently been welcomed into the Geely group.

About aPriori

aPriori is the leading provider of digital manufacturing simulation software that brings product design and sourcing teams closer to production. By leveraging the digital twin within our digital factories, we automatically generate design for manufacturability (DFM) and design for cost (DTC) insights, helping manufacturers collaborate across the product development process to make better design, sourcing and manufacturing decisions that yield higher value products in less time. aPriori solutions are now available either in the cloud or on-premise.

To learn more about aPriori visit www.apriori.com or call 1.978.371.2006.



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