

Aluminum's Deja Vu Defense

By [Christopher A. Sawyer](#), Executive Editor

Plodding along while steel blunted each of its advantages and delivered common products to automakers at lower prices, the aluminum industry must take a page from the steel industry's playbook if it hopes to be more than the perennial "material of the future."

Every time the cost of gasoline rises, the aluminum industry rubs its hands together. The same happens when Congress discusses tougher CAFE standards. Should the auto industry ever need to enter into a serious weight reduction regime over a single generation of vehicles, aluminum is the only real answer. And the bauxite barons are ready. Trouble is, the price of a gallon of fuel never rises high enough or remains there long enough, and political reality keeps the CAFE monster at bay.

"If the aluminum industry keeps following the same path it has to this point," says Subodh Das, president and CEO of aluminum analysis and research firm Secat, Inc. (Lexington, KY), "its future as an automotive material is limited." Das isn't some commentator without real-world experience. He knows the industry well. Prior to starting Secat, he was the vice president of Technology and New Products at Arco Aluminum, and chairman of the ALCAR consortium created to develop a low-cost, non-heat treatable aluminum alloy sheet. Before that, he worked for Alcoa as a senior scientist. Total industry experience: 30 years.



"What the aluminum and auto companies have not been very good at," Das continues, "is getting the discussion away from pricing." Das believes the historic price differential between steel and aluminum, though much closer today, keeps automakers from seriously considering the metal. He says this is compounded by the structure of the aluminum industry itself, which is dominated by a small number of large companies who act independently of each other instead of collaborating on solutions beneficial to all, despite the best efforts of organizations like the Aluminum Association to focus industry efforts on common needs.



Subodh Das is no stranger to the aluminum industry or its products, but says the old way of doing things won't be enough to help it

“Steel companies must work together because they have a commodity material and there are numerous suppliers,” says Das. “Which creates initiative like the Ultra Light Steel Auto Body [ULSAB] to attack problems common to the industry and blunt the perceived weight advantage of aluminum.” Das’s admiration of the steel industry’s efforts is that of a warrior bested by a more agile and hungry competitor on more than one occasion. “It has done an excellent job of speaking with one voice and promoting a vision tied to its customer’s needs,” he says. “Even though the aluminum industry’s structure prevents it speaking with one voice, it could learn a lot from the way the steel industry does things.” That includes creating distinct aluminum alloy commodities so automakers can satisfy their desire to multiple-source the material, and keep prices in check. Aluminum companies typically promote specialty products to give them a marketing advantage over their competitors.

make inroads with automakers and consumers. Aluminum-intensive vehicles like the Audi A8 are few and far between, he says. A collaborative effort along the lines of the steel maker’s ULSAB project would bring more innovation in design, and create product attributes car buyers in the lower-price segments would pay extra for.

Secat, Das explains, helps bring aluminum companies, government agencies, universities and the national laboratories together to conduct collaborative research. Each program participant invests the same amount of money. The results are equally shared and any intellectual properties generated are protected: “It gives them an incentive to bring fresh ideas and take greater risks at a much lower price than can be achieved by working alone.”

Overall, however, Das maintains that the competitive advantages of aluminum have not been well articulated to vehicle manufacturers or consumers. What’s more, many of the advantages of aluminum—such as being lighter than steel—have been countered by the steel industry which, not unimportantly, can point out that its material is less expensive. Consequently, there is no demand-pull for aluminum.

The solution for the aluminum industry, Das suggests, may be greater collaboration between the aluminum companies so that they can create compelling attributes for their products. “The only sure thing is that you have safety if the customer wants your product,” he says. “The aluminum industry must come to its own defense.”