



2019 Winners Announced for Altair Enlighten Award

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*Ferrari, FCA, Material Science Corporation, ZF, Alba Tooling & Engineering
Automotive Management Consulting GmbH, csi entwicklungstechnik GmbH take top honors*



Ferrari's Portofino was the winner in the Full Vehicle, low-volume production category. Innovative design approaches and manufacturing processes were applied to achieve a much lighter and stiffer Body-in-White structure.



FCA's 4th generation Jeep Wrangler, was the winner in the Full Vehicle, high-volume production category. An advanced multi-material strategy was implemented for lightweighting to save 92 Kg from the previous generation vehicle.



#ULTRALEICHTBAUSITZ is a feasibility study about an ultra-lightweight car seat that aims to completely re-think car seat design from scratch.

TROY, Mich., Aug. 05, 2019 (GLOBE NEWSWIRE) -- [Altair](#), (Nasdaq:ALTR) a global technology company providing solutions in product development, high-performance computing and data intelligence, is pleased to announce the winners of the 7th annual [Altair Enlighten Award](#). The awards were presented this evening at the [2019 CAR Management Briefing Seminars Seminars \(MBS\)](#) in Traverse City, MI.

"The winning products demonstrate the power of innovation and engineering disciplines to reduce vehicle weight and emissions," said Richard Yen, senior vice-president, strategic solutions team and global automotive business of Altair. "We were thrilled with the entrants and are proud to recognize the winners and runners up."

Full Vehicle, Low-volume Production Category Winner;

- Ferrari's Portofino, weighing an impressive 80kg lighter, while being 35 percent stiffer than the outgoing California T that it replaces, was the winner in the Full Vehicle, low-volume production category. The Portofino is designed to be driven daily, and converts in just 14 seconds from an authentic 'berlinetta' coupé to a drop-top, thanks to the retractable hard top system. It is significantly lighter than the outgoing model, thanks to the adoption of new components featuring innovative design developed by an extensive use of structural optimization, innovative aluminum technologies and the use of cutting-edge production techniques.

"Taking the Altair Enlighten Award in the full vehicle category for the Portofino BIW is a fantastic result for Ferrari. We have a dedicated group of engineers who constantly strive to achieve the most ambitious technical objectives the company sets, so this award honors their achievements," said Michael Leiters, CTO, Ferrari.

Full Vehicle, High-Production Category Winner;

- FCA's 4th generation Jeep Wrangler, eliminated 92kg from the previous generation vehicle. It employs an advanced strategy of lightweight aluminum, sheet molding compound (SMC) and high-strength steel. Technology highlights of its new design include a lightweight body system that shed 51kg (>12%), by strategically applied advanced lightweight materials to maximize customer value, comfort, safety, and convenience, as well as minimize manufacturing impact to bolster the benefit of lightweight material applications.

"We are immensely proud of the work we did on the one-of-a-kind Jeep Wrangler," said Rob Wichman, interim head of product development, FCA North America. "We are also grateful to Altair for recognizing engineering achievement, in general. Thoughtful, disciplined engineering unlocks innovation. And innovation moves the world forward."

Module Category Winner;

- ZF with its latest knee airbag (KnAB) design replaces the typical metal housing found in existing low mounted knee airbags by a fabric housing. This lightweight "Global Baseline Module" technology is based on a fabric housing and provides high restraint performance capability while allowing significant weight reduction. With a weight reduction of 30 percent, it is 20 percent more compact, and a design that can be tailored for all specific customer needs and markets to help meet global safety test requirements and standards.
- General Motors & Continental Structural Plastics for the CarbonPro pickup box were the runners up in this category. CarbonPro is the industry first carbon fibre reinforced thermoplastic pickup box. It saves 62lb of mass and offers the best in class impact resistant bed which adds unprecedented strength and durability to the truck.

Enabling Category Winner;

- Material Sciences won top honors in the Enabling category for MSC Smart Steel, the first ever spot weldable low-density composite laminate to be used in a body application. MSC Smart Steel is a new multilayer steel laminate engineered as a direct substitute for vehicle body parts stamped from low carbon steel. The concept involves creating a three-layer laminate whereby the outer skins are steel, and the middle layer consists of a low-density conductive polymer core, which allows MSC Smart Steel to be stamped and spot welded – an industry first!
- DSM Engineering Plastics, Inc., Cikautxo Group, General Motors, Henn GmbH & Co KG – 2019 Cadillac XT4 Arnitel Thermoplastic Co for the polyester hot charge air duct, were the runners up for the Enabling Technology category. The all-new Arnitel thermoplastic copolyester (TPC) hot charge air duct for the 2019 Cadillac XT4 engine replaced a thermoset rubber solution, significantly reducing the weight, cost and design complexity of the turbocharging system for the GM CSS 2.0L turbo engine.

The Future of Lightweighting Winner;

- The award for the Future of Lightweighting went to a feasibility study for #ULTRALEICHTBAUSITZ, a collaborative effort by Alba tooling & engineering, Automotive Management Consulting GmbH, and csi entwicklungstechnik GmbH. #ULTRALEICHTBAUSITZ aims to completely re-think car seat design from scratch through consequent use of cutting-edge generative technologies with the philosophy of “form follows force.” Their goal is to manufacture a comfortable and highly adaptable, yet ultra-lightweight vehicle seat prototype with a mass of about 10 kg.

"We were pleased to once again receive so many outstanding entries this year," said Carla Bailo, president and CEO at the Centre for Automotive Research. "The entries demonstrate excellence in their unique approaches to meet the challenges for weight reduction through innovative materials and joining technology combined with design simulation. This is critical to the success of light weighting initiatives as the future of mobility including electric and autonomous vehicles continues to develop at a rapid pace."

For a list of finalists and their innovations, please visit <http://altairenlighten.com/award/>

About Altair (Nasdaq: ALTR)

Altair is a global technology company that provides software and cloud solutions in the areas of product development, high performance computing (HPC) and data intelligence. Altair enables organizations across broad industry segments to compete more effectively in a connected world while creating a more sustainable future. To learn more, please visit www.altair.com.

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