

# PRESS RELEASE



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## **Ricardo helps Detroit Materials to commercialize next-generation automotive materials**

**It can be revealed that Ricardo Strategic Consulting is providing expert support to Detroit Materials, Inc. to bring its innovative ultra-high strength materials to the automotive industry, thus enabling structural light-weighting initiatives**

Ricardo Strategic Consulting, the global management consulting subsidiary of Ricardo plc that offers a comprehensive portfolio of high added-value, technology-focused management consulting services, is providing support to Detroit Materials for strategy and supply chain development to further commercialize its products into the automotive, truck and transportation sectors.

Detroit Materials is a start-up firm focused on the commercialization of ultra-high performance structural materials, something for which it was recognized at last month's SAE World Congress where it announced as winner of the 7th Annual Global Automotive Innovation Challenge for its ultra-high strength castable low-alloy steel to support vehicle light-weighting initiatives. The market interest for affordable light-weighting of vehicle structures is high, due to both light duty fuel economy mandates and forthcoming freight efficiency rules for medium and heavy duty trucks.

Detroit Materials has developed the strongest castable low-alloy steel in the market. This advanced steel offers a combination of strength, toughness, hardness and elongation that is currently only available using highly alloyed and costly exotic steels. The company's nano-structured ultrahigh strength steel provides the ability to produce thin walled castings for demanding applications, offering the best-in-class performance per dollar as compared to titanium, aluminium, ultra-high strength steel,



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carbon fibre and other emerging advanced high strength steels. The material has the potential to support a variety of lightweight structural applications in the passenger vehicle, truck, defence, off-highway, and transportation industries.

With the support of Ricardo Strategic Consulting, Detroit Materials will initially focus on lower barrier to entry markets, such as chassis brackets for the Class 8 truck market, where the cast steel offers up to 58 percent weight savings – translated to the entire US Class 8 fleet this would deliver a potential fuel savings of over 80 million gallons (303 million litres) of diesel per year. As Class 8 trucks account for approximately 15 percent of transportation energy consumption, this curb vehicle weight improvement will provide a potential savings per vehicle of over 1,500 gallons (5,678 litres) of fuel and 18 tons (US) (16.3 tonnes) of CO<sub>2</sub>e annually. This technology will support manufacturers' immediate needs to meet 2017 GHG emission and fuel consumption standards for heavy- and medium-duty vehicles.

Ricardo Strategic Consulting is working with Detroit Materials to assess market opportunities and best entry points based on the cast steel's competitive position. Detroit Materials and Ricardo are also collaborating on an assessment of automotive component manufacturing costs to identify and resolve market entry barriers for new suppliers to low and high annual volume vehicles.

“Ricardo is pleased to be working with Detroit Materials on the commercialization of its ultra-high strength thin wall casting steel technology,” commented Dr Marc Wiseman, vice president of Ricardo Strategic Consulting. “The award of the Annual Global Automotive Innovation Challenge at this year's SAE World Congress reflects the potential of its next-generation of materials and we look forward to working with Detroit Materials to develop and implement the company's commercialization strategy.”

Ends



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**NOTES TO EDITORS:**

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**Ricardo Strategic Consulting** is a business unit of Ricardo plc. Its team of consultants address high impact strategic issues such as developing strategies for new products and markets, resolving operational challenges at every stage of the value chain, as well as guiding clients through post-merger integration.

**Detroit Materials, Inc.** is an advanced materials firm focused on the commercialization of ultrahigh performance structural materials. Detroit Materials has a portfolio of customizable high-strength low-alloy structural ferrous materials for demanding applications in the defense, off-highway, tooling, and transportation industries. For more information visit [www.detroitmaterials.com](http://www.detroitmaterials.com).

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