



## GLOBAL STEEL INDUSTRY ANNOUNCES FUTURE STEEL VEHICLE RESEARCH PROGRAM

### *Lightweight Prototype Body Aimed at Reducing Greenhouse Gas Emissions*

**BALI, Indonesia, Dec. 11, 2007** – In the quest for more environmentally friendly automobiles, global steel companies have aims to reinvent the steel automobile body.

As the consensus builds for comprehensive reductions in greenhouse gas (GHG) emissions across international boundaries and industries, global steel companies are reinventing the deployment of steel to reduce GHG emissions, while still providing safe and affordable personal transportation for an increasing mobile global society.

The International Iron and Steel Institute's automotive group, WorldAutoSteel, today announced the Future Steel Vehicle project at the United Nations Framework Convention on Climate Change conference in Bali. Future Steel Vehicle will develop steel auto body concepts that address alternative powertrains, such as advanced hybrid, electric, and fuel cell systems. The goal of the research is the demonstration of safe, lightweight steel bodies for future vehicles that reduce GHG emissions over the entire life cycle.

At present, much effort is focused on reducing tailpipe emissions during the driving life of vehicles. "From a total vehicle cradle-to-grave life cycle perspective, steel is the most effective material for reduced greenhouse gas emissions," said Ian Christmas, International Iron and Steel Institute's secretary general. "With this project, we will develop concepts that should help automakers reduce GHG emissions over the entire vehicle life."

Future Steel Vehicle, a multimillion dollar multiyear program, will consist of three phases: Phase I Engineering Study; Phase II Concept Designs; and Phase III Demonstration Hardware.

WorldAutoSteel has commissioned the world's largest independent automotive engineering partner, EDAG Engineering + Design AG, headquartered in Fulda, Germany, to complete the first phase Engineering Study. Development work will be based at EDAG's Auburn Hills, Michigan, USA facility ([www.EDAG.com](http://www.EDAG.com)). Phase I will examine changes affected by new powertrain systems that may radically alter the structure of automobiles and will provide input for selection of Phase II design concepts. Phase I results are expected in 2008.

Future Steel Vehicle is the fifth in a series of auto steel research projects. The previous four, representing over US\$60 million in industry investment by the world's sheet steel producers, were undertaken over the last decade to demonstrate the application of new steel grades, design



techniques and manufacturing technologies for light vehicle structures. The UltraLight Steel Auto Body (ULSAB), UltraLight Steel Auto Closures (ULSAC) and UltraLight Steel Auto Suspensions (ULSAS) projects each illustrated advanced high strength steel (AHSS) in high-volume steel applications that significantly reduced vehicle weight while improving safety and performance and maintaining manufacturing affordability.

A fourth project, ULSAB-AVC (Advanced Vehicle Concepts), produced full vehicle concepts for a C-Class and a Mid-size vehicle. Achievements included significantly improved energy efficiency through lightweight AHSS applications. In addition, a life cycle assessment report published by the Societies of Automotive Engineers in the U.S. and Japan, cites ULSAB-AVC as having a potential 50 percent reduction in total primary energy consumption over the vehicle life cycle, compared to a United States Automotive Materials Partnership study vehicle.

"These previous research projects revolutionized the kinds of steels normally applied to auto bodies, as well as demonstrated innovative steel vehicle designs," said Edward Opbroek, WorldAutoSteel director. "The application of these research findings is seen globally in many vehicles on the road today. We expect the Future Steel Vehicle project to stimulate the same development in upcoming alternative vehicles."

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**WorldAutoSteel**, the automotive group of the International Iron and Steel Institute, continually explores steel innovation that demonstrates and communicates the value of steel in automobiles to industry and society. Its worldwide member companies pool global resources within and beyond the steel industry to deliver vital research that is central to effective steel automobile applications. WorldAutoSteel continues to lead the materials revolution through projects like the Future Steel Vehicle and the UltraLight Steel Family of Research: ULSAB, ULSAC, ULSAS, and ULSAB-AVC, which help the world's automotive industry to improve the safety, affordability and environmental impact of its products. To learn more about these and other WorldAutoSteel projects, visit [www.worldautosteel.org](http://www.worldautosteel.org)

WorldAutoSteel members include Arcelor Mittal - Luxembourg, Baoshan Iron & Steel Co. Ltd. - China, BlueScope Steel - Australia, China Steel Corporation - Taiwan, China, Corus Group - The Netherlands/United Kingdom, Dofasco Inc. - Canada, Essar Steel Ltd. - India, JFE Holdings, Inc. - Japan, Hyundai-Steel Company - Korea, Kobe Steel, Ltd. - Japan, Nippon Steel Corporation - Japan, Nucor Corporation - USA, Pohang Iron and Steel Co., Ltd (POSCO) - South Korea, Rautaruukki Oyj – Finland, Salzgitter AG – Germany, OAO Severstal - Russian Federation, Severstal North America - USA, Shougang Group - China, SSAB Tunnpått AB - Sweden, Sumitomo Metal Industries, Ltd. - Japan, Tata Steel - India, ThyssenKrupp Steel AG - Germany, United States Steel Corporation - USA, Usinas Siderurgicas de Minas Gerais S.A. (USIMINAS) - Brazil, voestalpine Stahl GmbH – Austria.

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