

Next Generation Vehicle went public in Frankfurt: The truth about tomorrow's cars

On September 12, during the IAA 2007 in Frankfurt, Next Generation Vehicle gave a press conference at the Marriott Hotel. The event gave a presentation of the project and its implications for tomorrow's cars. Next Generation Vehicle is a joint research project and includes the following partners: Audi, BMW, Fiat, DaimlerChrysler, Outokumpu, Saab Automobiles, ThyssenKrupp, ArcelorMittal - Stainless Europe (Ugine&Alz), and Volvo Cars. The press conference was addressed to an audience with an interest in future car technology and its implications for sustainable development.

Less emissions through less weight

It's difficult to picture the world without cars. The transportation of things and people is simply essential to the way we live. It has become evident, though, that the effects of cars on environment are severe. This will have to change in the near future. Although there are many things about today's cars that will need to be altered in order to meet the challenge of sustainability, some of these things are more important than others. The Next Generation Vehicle Project is concerned with one crucial factor: weight.

It's an obvious truth about tomorrow's cars that they will need to weigh less. Much less. Cars will still need to be safe, however, as well as drivable, affordable, and attractive, or there will be no future at all for them. These factors all provide intriguing challenges. The environmental aspect will have to be integrated with all the other aspects.

Next Generation Vehicle is a research project with the objectives of improving sustainability in car manufacturing. Most of a car's weight derives from steel. This means that research into the production of lighter steel components might be a planet saver. Radical reduction of weight equals radical reduction of emissions.

Meeting the challenge of sustainability

For the Next Generation Vehicle Project, the main challenge lies in meeting increased environmental demands without compromising safety. These two factors traditionally collide, for obvious reasons: It's easy to produce a safe car, if weight is not important. It's likewise easy to produce an environmentally adapted car, if safety is not an issue. However, safety and environment are indeed issues when discussing tomorrow's cars.

The Next Generation Vehicle Project can provide solutions to the evident problem of meeting the demands of environment without compromising safety. Cars built with high strength stainless steel materials weigh less, and thus pave the way for lowered fuel consumption. The stainless materials tested and used in the project create excellent opportunities for the car industry, since they result in light vehicles that still meet every safety demand.

[Continue on next page](#)

Affordability and environment

The most obvious interface between affordability and environmental demands is, again, weight. Cars built with high strength stainless steel materials weigh less, thus enabling increased fuel economy. It's all in the manufacturing process.

Stainless steel is very processable. It can be formed into complex parts, resulting in radically reduced amounts of scrap. In addition to this it can be made extremely thin. This is cost effective as well as congruent with the project's environmental aims.

Development through partnership

The Next Generation Vehicle Project is a joint research project, uniting steel and automotive partners, as well as software partners. Research into the future role of stainless steel is vital to the steel and the automotive industries alike. By working together in this long-term project, the partners will be able to implement the results in their respective corporations. This will in itself expedite the necessary transpositioning to using lightweight materials in car production.

The research partners are: Audi AG, Bayerische Motoren Werke AG, Centro Ricerche Fiat, Daimler Chrysler AG, Outokumpu Oyj, GM/Saab Automobile AB, ThyssenKrupp Nirosta, ArcelorMittal - Stainless Europe (Ugine&Alz), and Volvo Car Corporation.

Contact Next Generation Vehicle

Roland N-G Gustafsson, Project Director

+46703139930

info@ngvproject.org

More information will be found on the project's new website:

www.ngvproject.org