ONZIEME RENCONTRE INTERNATIONALE DU GERPISA
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Les acteurs de l'entreprise à la recherche de nouveaux compromis ?
Construire le schéma d'analyse du GERPISA

Company Actors on the Look Out for New Compromises
Developing GERPISA's New Analytical Schema

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DESIGNING FOR SUSTAINABILITY: TOMORROWS' CAR ENCOMPASSING ENVIRONMENTAL PARADIGM

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Nowadays designing activities were enlarged to cope with environmental requirements from materials selection to final assembly and even more up to vehicles end of life. Industrial manufactures are from now on seen as socially responsible for their products and theirs environmental impacts. The environment shows up this new century as a driving force for continuous innovation and redesigning of products and plants.

Since the ninths the automobile industry has faced a complete restructuring process in its designing organization fostering to conceive greener cars. Carmakers have merged forming conglomerates, R&D has been shared between car manufactures' and suppliers, and so the automobile has been reinvented, as it embodies an invisible set of innovations in materials, sensors, emissions control devices, etc. At the designing level the car companies are enlarging the role of the first rank suppliers in the design of new products. Furthermore, partnerships between suppliers and carmakers are established since the launching of a new project, sharing part of the R&D costs and profits of new patents.

They also participates at long lasting international research projects aiming to evaluate and enhance technological innovation environmentally addressed such as the ULASB (ultra light automobile steel body), the PNGV (partnership for a new generation of vehicles), and the EUROCAR (European car program for European Union). Besides, the largest Car Company in the world has its own research driving innovation named "Product Engineering for GM Advanced Technology Vehicles" which includes the EV1 project that reached 23 new patents.

In a global level, the product policies adopted by North American and European companies, for keeping and sustaining their market share, were focused on technical and organizational innovations, specially concerning the reduction of the time lag between conception and commercialization of new models. A wider range of options among standard cars and a great effort on improving the quality and reducing environmental impacts were the main goals.

These objectives were reached by integrating research, design, and production as parts of different fields of knowledge, in a multidisciplinary system represented by the dissemination of simultaneous engineering methods for the whole company. By doing so the distance between research and production has been drastically reduced, avoiding back and forth efforts that usually take a lot of time and money from the governments, enterprises and society in general. It also allows the integration of the environmental issues on the design and production levels.

In this scenario partnership is a key word. The automobile designers and engineers for sake of new, innovative and environmental friendly cars share different knowledge. Furthermore the way automobiles are being conceived and manufactured from now on is also changing the concept of this former essentially polluter product into an almost 100 % recyclable one and maybe soon available in zero emission version.