

ALMA

Architecture for Low Mass and Aerodynamic drag

Project summary:

The overall objective of the ALMA project is to assess technologies and architectures providing a **substantial reduction in the energy demand** of a vehicle by innovating on three key aspects: mass, aerodynamics and friction.

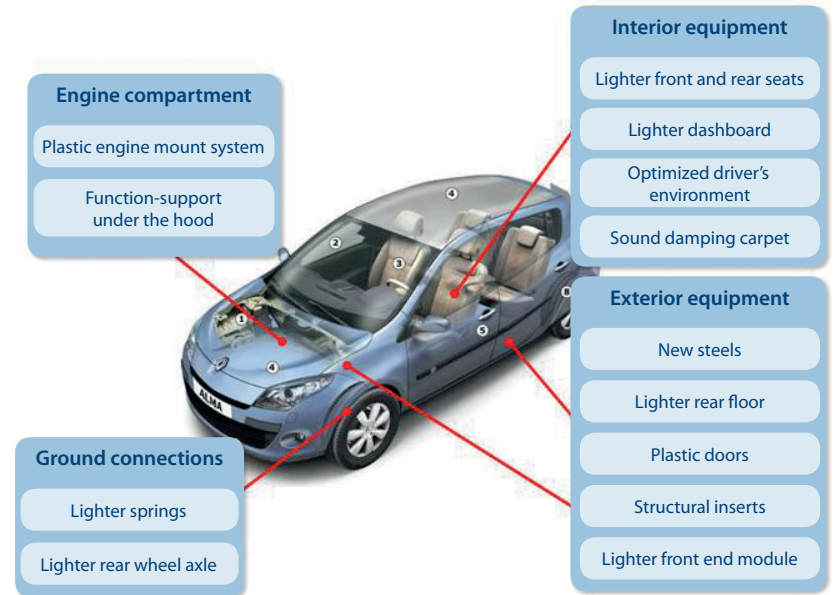
The project is being carried out on a Renault Mégane base and the intention is to reach 80 g of CO₂ per km at identical performance levels and while maintaining a conventional internal combustion engine. This target will require the deployment of cost-competitive, large-scale industrial solutions.

The “**weight reduction**” aspect is the object of the FUI (French State fund for applied research). The challenge is to find the limits of each technological solution. The technical content will focus on the integration of numerous breakthrough solutions to design an innovative architecture: new steel solutions, generalized use of structural inserts, light alloys, composite materials... All of these solutions will be examined in terms of their environmental impact on the complete life cycle.

The chosen project partners bring together all of the skills and expertise of French industry to work on a federating and strategic project. The industrial spinoffs will represent a decisive competitive advantage to achieve a significant reduction in CO₂ emissions in the next ten years.

Progress status (January 2011):

The project kick-off took place on January 26th 2011. All of the work packages are in line with their respective schedules. A plenary is planned in late September with the main objective of finalizing the consortium agreement.



Duration [30 months

Budget [6 700 k€ (Public Funding: 1 800 k€)

Project partners: RENAULT, ARCELORMITTAL, PLASTIC OMNIUM, FAURECIA, MECACORP (MECAPLAST Group), S.ARA COMPOSITE, L&L Products Europe, PROMOLD, LMT Cachan.

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